



Inductive Solution Provider for Power, EMI and RF.

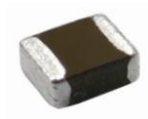
# Inductors SMD Components



**Power Inductor ADHE Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Metal
- Ultra High Current

**Part Numbering**

A	DHE	00	252012	1R0	M	Q1
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			252012A 2.5x2.0x1.2	R33 0.33 R68 0.68 1R0 1.0	M ±20%	

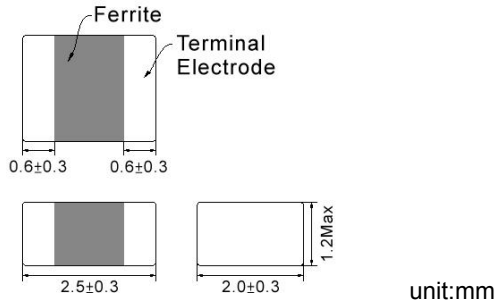
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor ADHE Series**

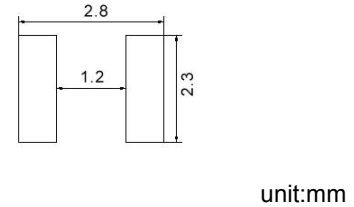
**Automotive  
AEC-Q200**

**ADHE00252012 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat(A) Max(Typ)	Irms(A) Max(Typ)	Tolerance (±%)
ADHE00252012R33MQ1	0.33	2MHz,0.2V	22(16)	6.2(7.0)	4.7(5.4)	20
ADHE00252012R47MQ1	0.47	2MHz,0.2V	33(28)	5.2(6.1)	4.0(4.7)	20
ADHE00252012R68MQ1	0.68	2MHz,0.2V	36(30)	4.5(5.2)	3.5(4.1)	20
ADHE002520121R0MQ1	1	2MHz,0.2V	42(35)	3.7(4.3)	3.3(3.8)	20
ADHE002520121R5MQ1	1.5	2MHz,0.2V	62(52)	3.3(3.9)	2.3(2.7)	20
ADHE002520122R2MQ1	2.2	2MHz,0.2V	84(74)	2.9(3.4)	2.2(2.6)	20

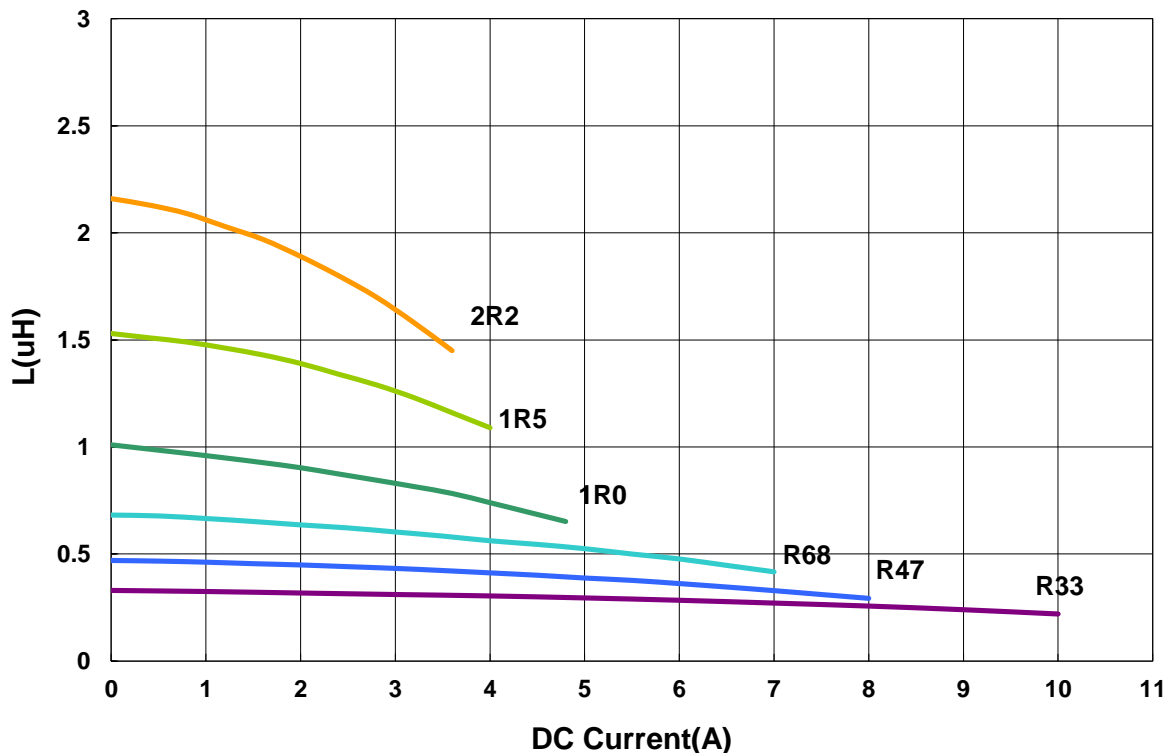
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 25VDC
5. Measure Equipment:
  - L: Agilent E4991/HP4286A+16197A (or equivalent), 2MHz 0.2V
  - RDC: CHEN HWA502BC/HP4338B (or equivalent)
  - Isat: Agilent E4980A+HP42841A (or equivalent)
  - Irms: Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)

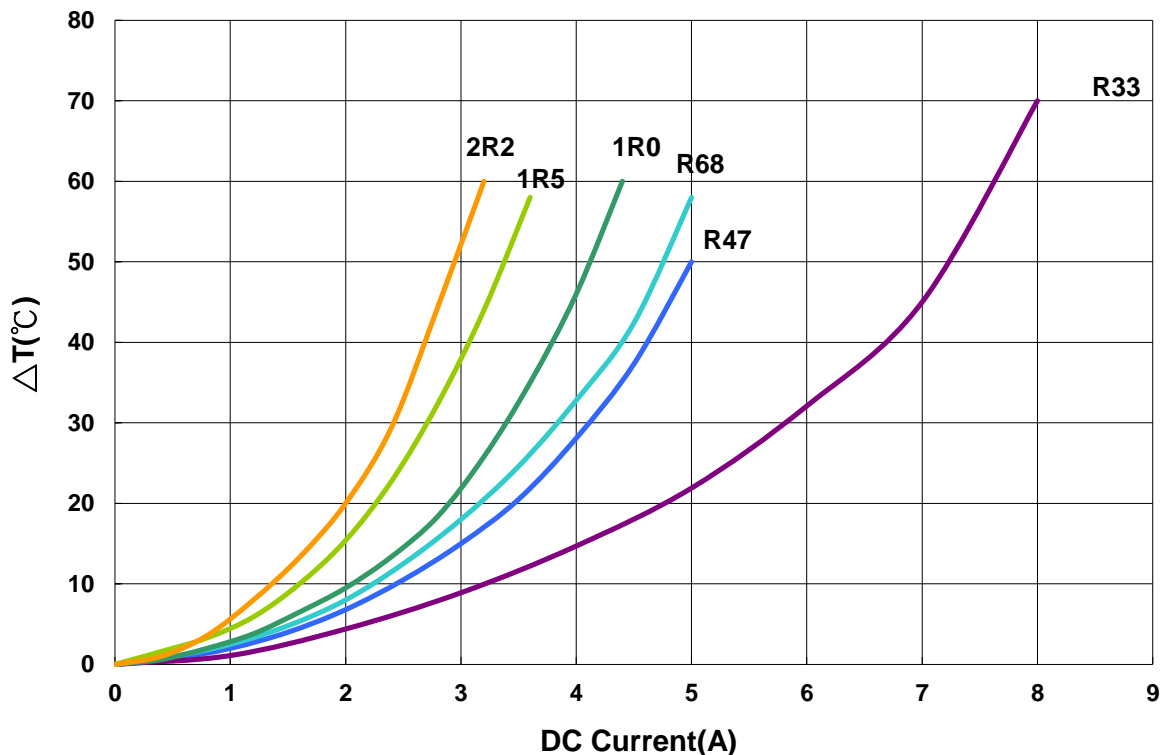
ADHE00252012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

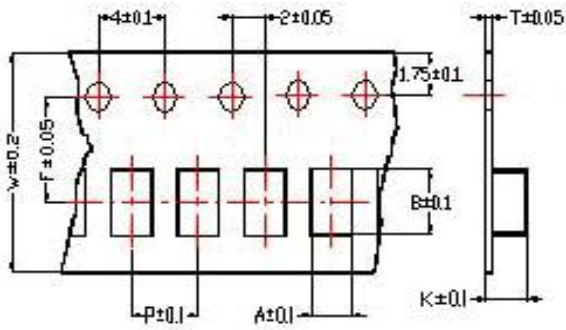




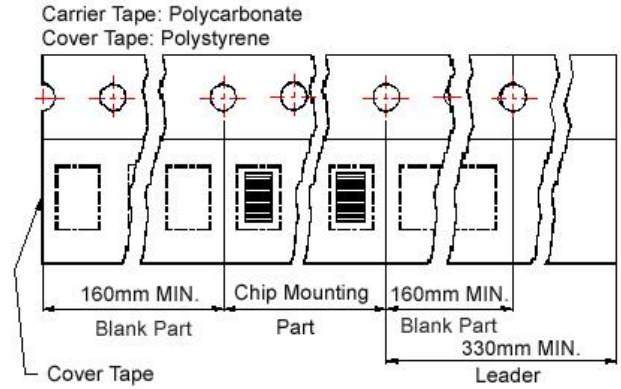
**Power Inductor ADHE Series** **Automotive AEC-Q200**

**■ Packaging**

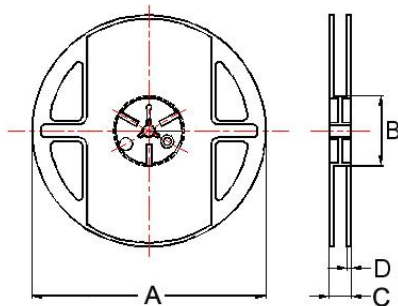
**Tape Dimensions**



**Tape Material**



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	A	B	C	D	
ADHE00252012	2.25	2.80	0.22	8	4	3.5	1.35	178	60	12	2	3000

**Power Inductor AKPx Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Noise  
Suppression
- Shield
- Multilayer
- Ferrite
- General  
Signal line

**Part Numbering**

A	KPx	00	201610	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
	KPB		1608DZ 1.6x0.8x0.8	R47 0.47	T ±30%	A2
	KPE		201210 2.0x1.25x1.0	1R0 1.0	M ±20%	A6
			201610 2.0x1.6x1.0			
			252010 2.5x2.0x1.0			

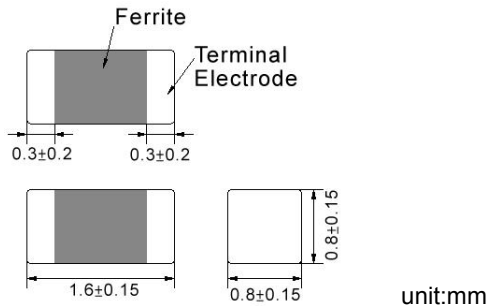
This specification applies to Multilayer Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor AKPx Series**

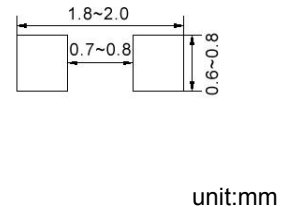
**Automotive  
AEC-Q200**

**AKPB001608DZ Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance	Test Freq.	RDC	Isat	I <sub>rms</sub> (mA)Max.		Tolerance
	(uH)				(Ω)±30%	(mA)Max.	
AKPB001608DZR47□A2	0.47	3MHz,200mV	0.15	400	1100	800	20,30
AKPB001608DZ1R0□A2	1.0	3MHz,200mV	0.20	200	950	700	20,30
AKPB001608DZ2R2□A2	2.2	3MHz,200mV	0.30	150	750	550	20,30

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I<sub>rms</sub> for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with \*1, Rated Current is depending on the operating temperature
5. Measure Equipment :  
 L : Agilent HP4287A+16197A  
 RDC : HP 4338B, or equivalent

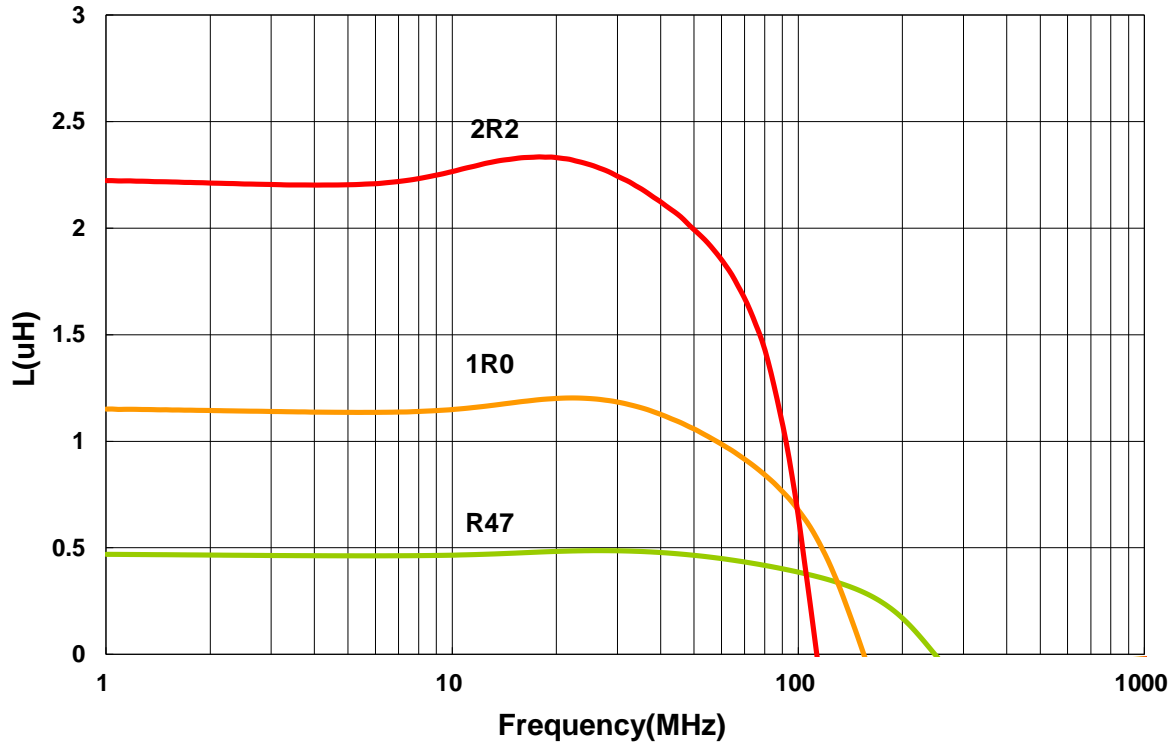
**Power Inductor AKPx Series**

**Automotive  
AEC-Q200**

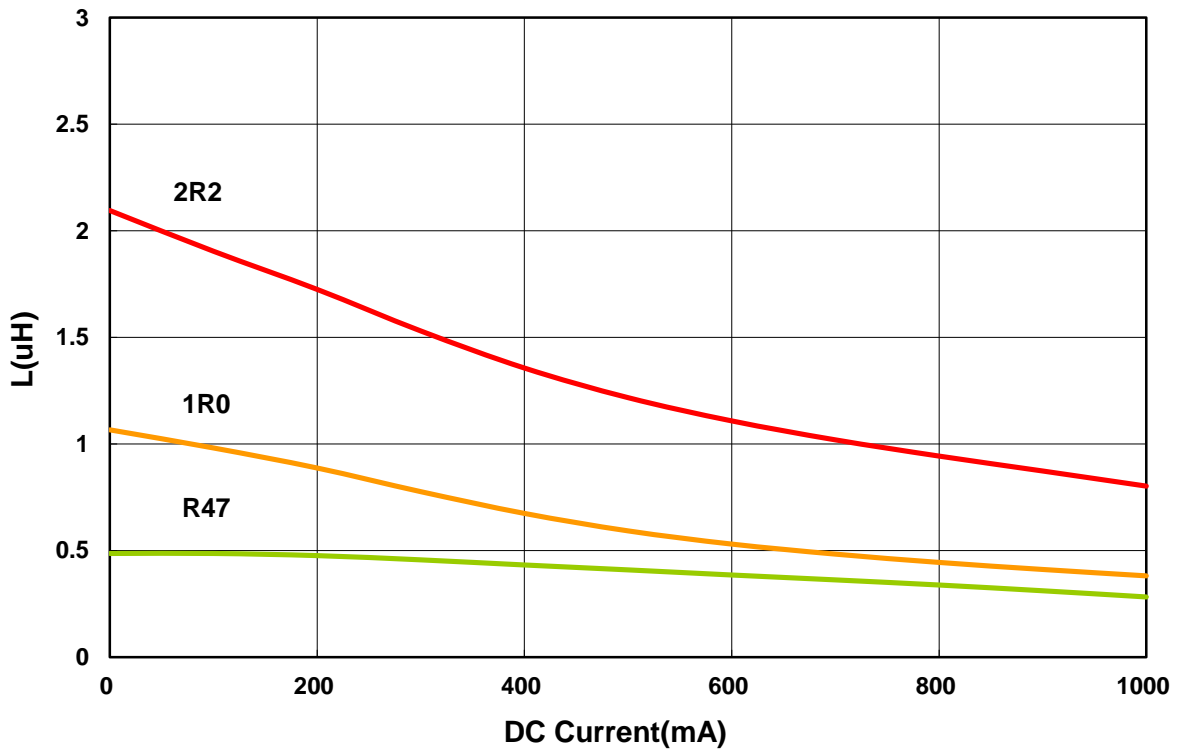
**AKPB001608DZ Type**

**■ Characteristics Graph**

**Inductance vs. Frequency Characteristics**



**Inductance vs. DC Current**

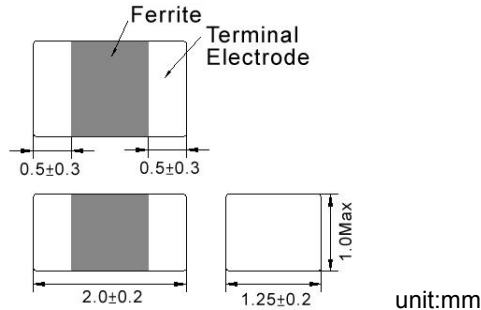


**Power Inductor AKPx Series**

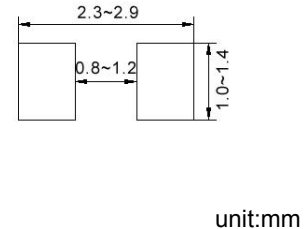
**Automotive  
AEC-Q200**

**AKPB00201210 Type**

**Dimensions**



**Recommended Land Pattern**



**Electrical Characteristics**

Part No.	Inductance	Test Freq.	RDC	Isat	Irms(mA)Max.		Tolerance
	(uH)				(Ω)±30%	(mA)Max.	
AKPB00201210R47□A2	0.47	3MHz,200mV	0.09	1100	1300	950	20,30
AKPB002012101R0□A2	1.0	3MHz,200mV	0.12	650	1200	900	20,30
AKPB002012101R5□A2	1.5	3MHz,200mV	0.15	450	1100	800	20,30
AKPB002012102R2□A2	2.2	3MHz,200mV	0.19	400	1100	800	20,30
AKPB002012103R3□A2	3.3	3MHz,200mV	0.24	300	800	600	20,30
AKPB002012104R7□A2	4.7	3MHz,200mV	0.26	200	700	500	20,30

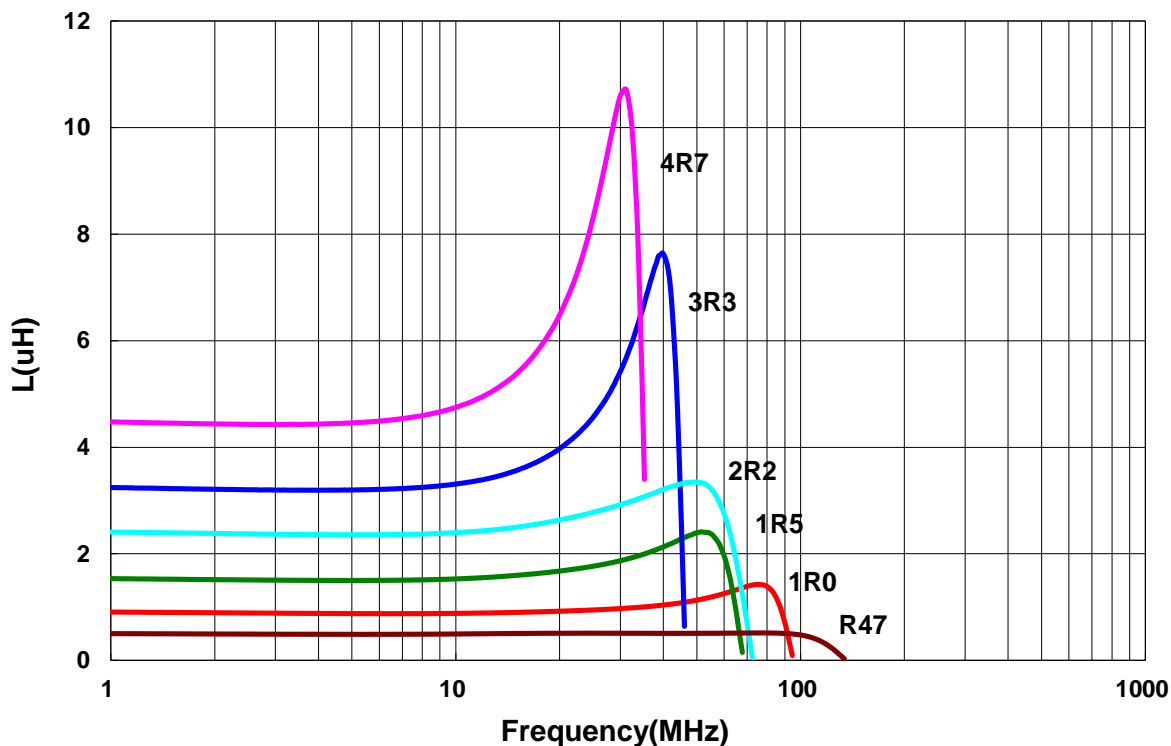
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with \*1, Rated Current is depending on the operating temperature
5. Measure Equipment :  
 L : Agilent HP4287A+16197A  
 RDC : HP 4338B, or equivalent

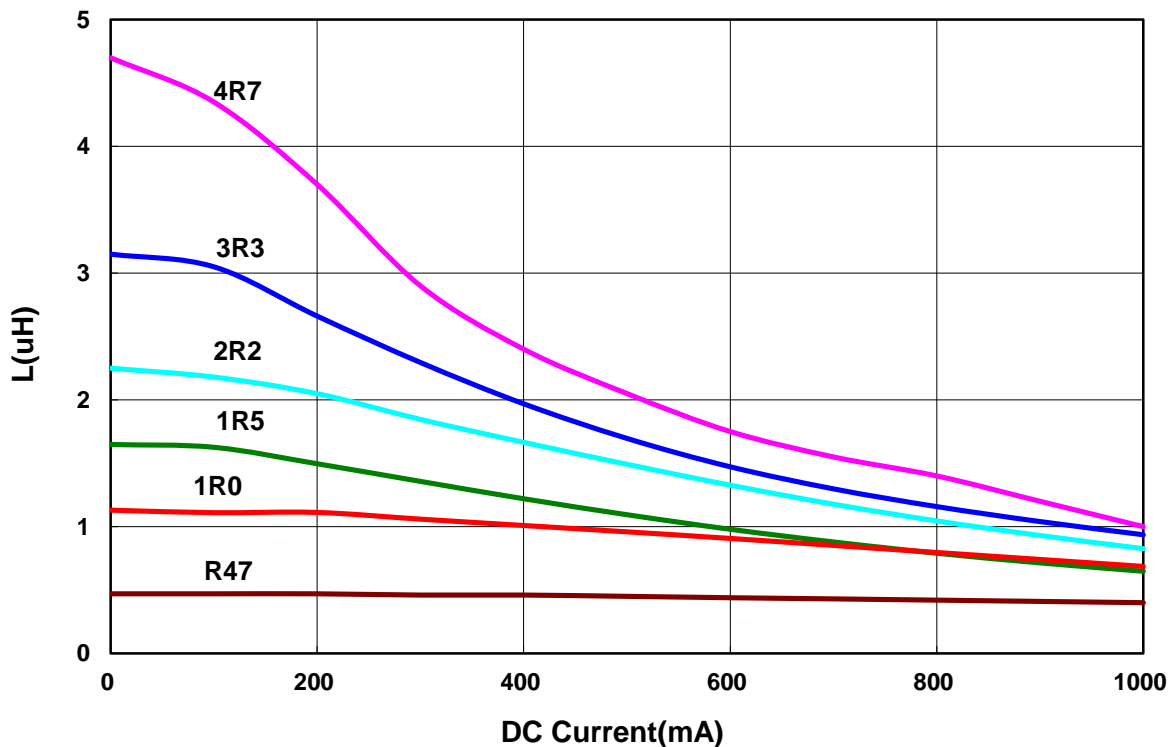
AKPB00201210 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

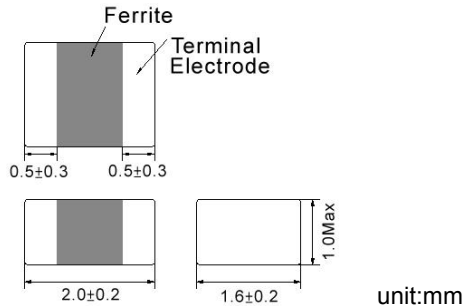


**Power Inductor AKPx Series**

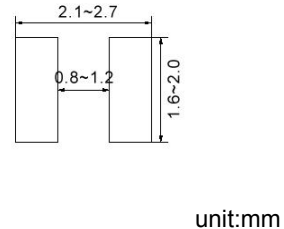
**Automotive  
AEC-Q200**

**AKPB00201610 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance	Test Freq.	RDC	Isat	Irms(mA)Max.		Tolerance
	(uH)				( $\Omega$ ) $\pm$ 25%	(mA)Max.	
AKPB00201610R47□A6	0.47	3MHz,200mV	0.06	1200	1600	1200	20,30
AKPB002016101R0□A6	1.0	3MHz,200mV	0.09	850	1300	950	20,30
AKPB002016101R5□A6	1.5	3MHz,200mV	0.11	600	1200	900	20,30
AKPB002016102R2□A6	2.2	3MHz,200mV	0.11	400	1200	900	20,30
AKPB002016103R3□A6	3.3	3MHz,200mV	0.12	350	850	625	20,30
AKPB002016104R7□A6	4.7	3MHz,200mV	0.14	200	1100	800	20,30

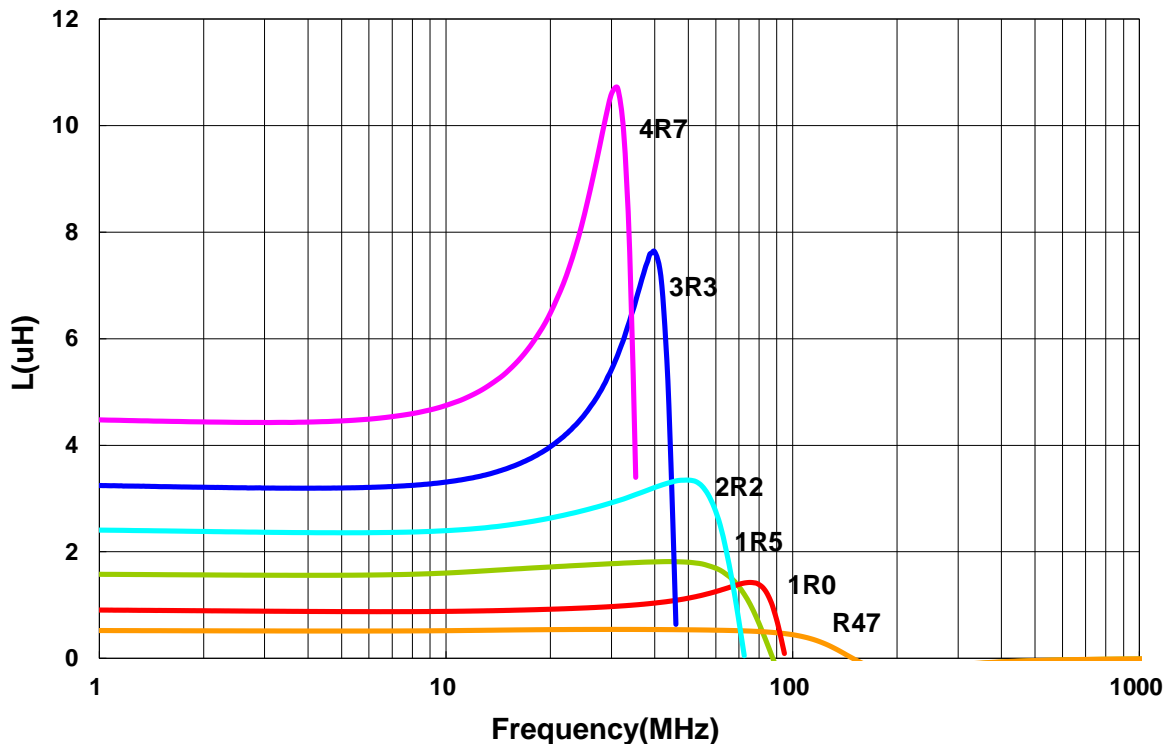
**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm$ 20% / T= $\pm$ 30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with \*1, Rated Current is depending on the operating temperature
5. Measure Equipment :  
L : Agilent HP4287A+16197A  
RDC : HP 4338B, or equivalent

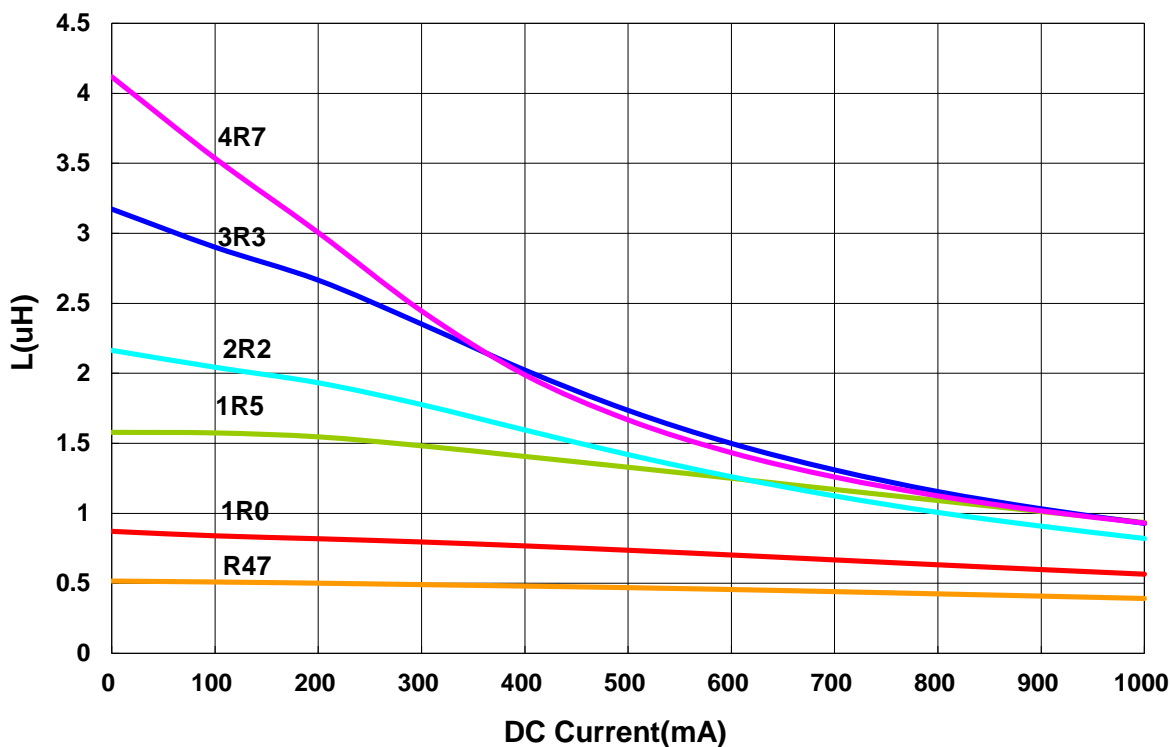
AKPB00201610 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



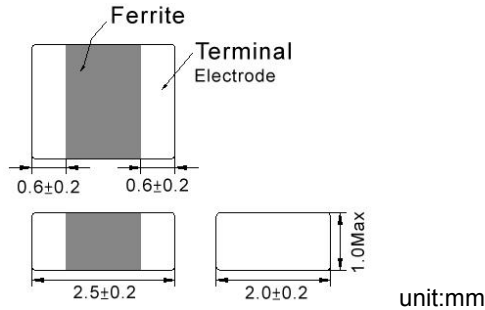


**Power Inductor AKPx Series**

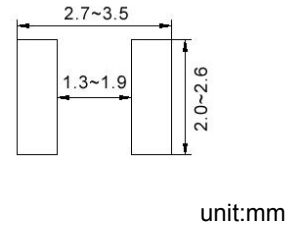
**Automotive  
AEC-Q200**

**AKPB00252010 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance	Test Freq.	RDC	Isat	Irms(mA)Max.		Tolerance
	(uH)				(Ω)±25%	(mA)Max.	
AKPB00252010R47□A6	0.47	3MHz,200mV	0.040	1500	1800	1300	20,30
AKPB002520101R0□A6	1.0	3MHz,200mV	0.055	900	1600	1200	20,30
AKPB002520102R2□A6	2.2	3MHz,200mV	0.080	500	1300	950	20,30
AKPB002520103R3□A6	3.3	3MHz,200mV	0.100	400	1200	900	20,30
AKPB002520104R7□A6	4.7	3MHz,200mV	0.110	300	1100	800	20,30

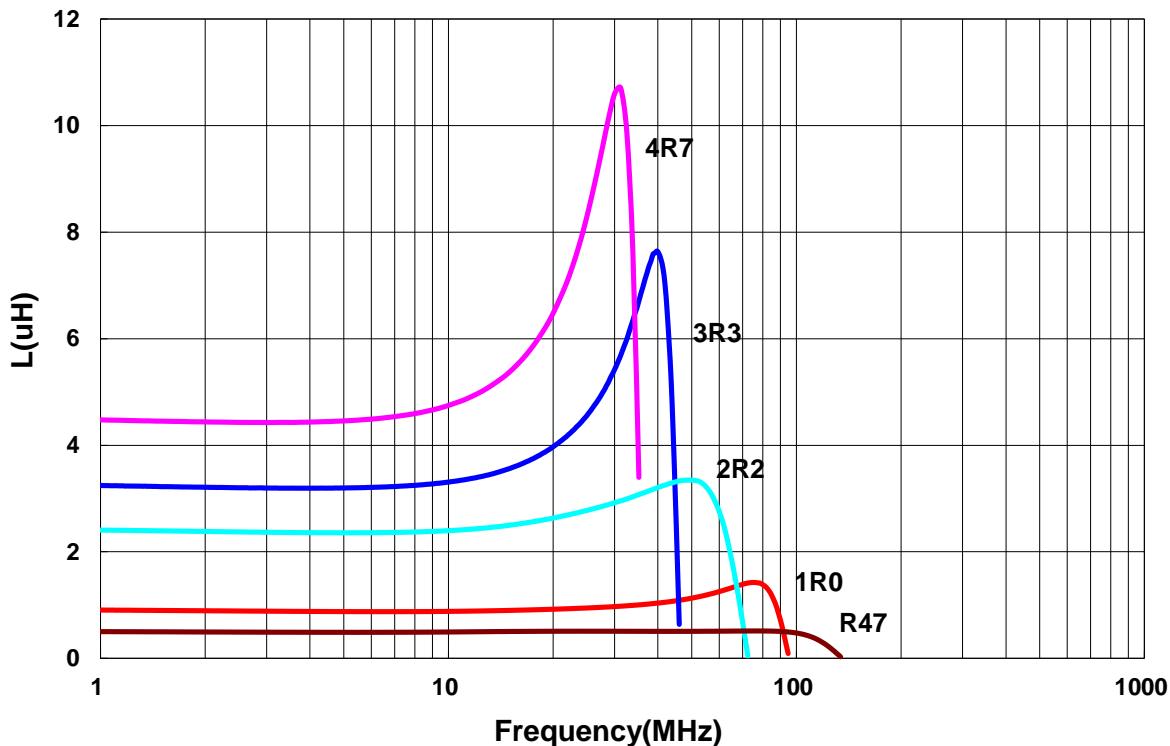
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with \*1, Rated Current is depending on the operating temperature
5. Measure Equipment :  
L : Agilent HP4287A+16197A  
RDC : HP 4338B, or equivalent

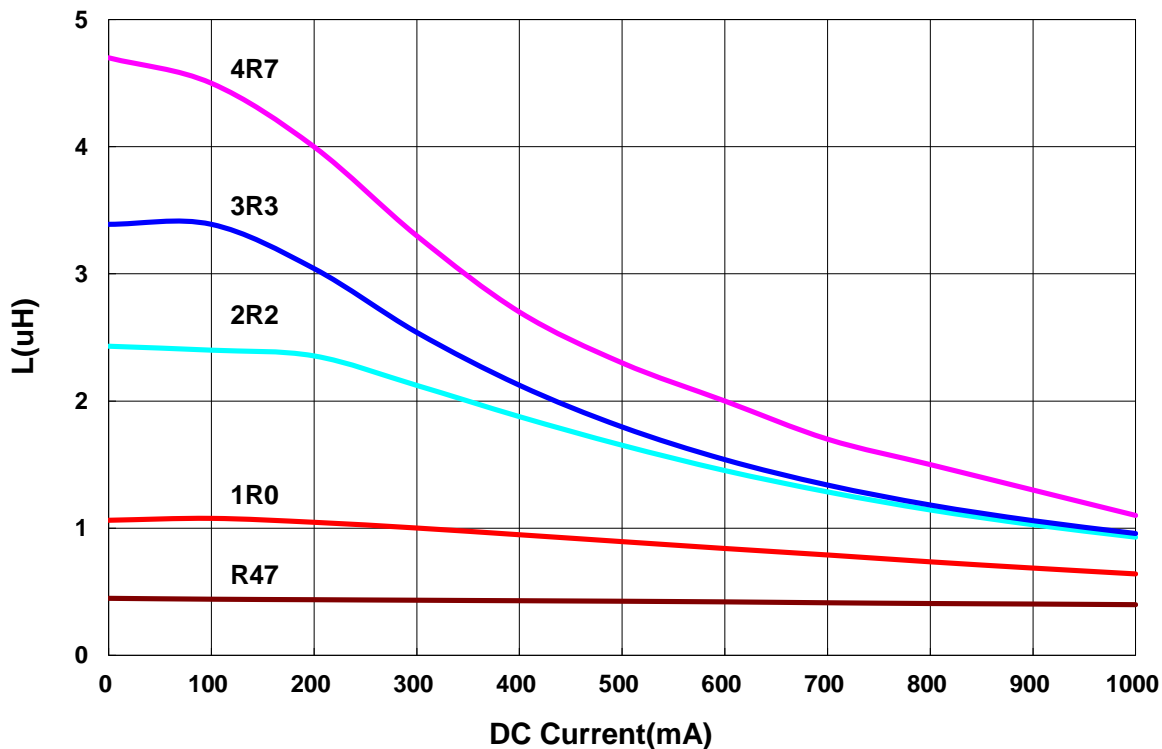
AKPB00252010 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

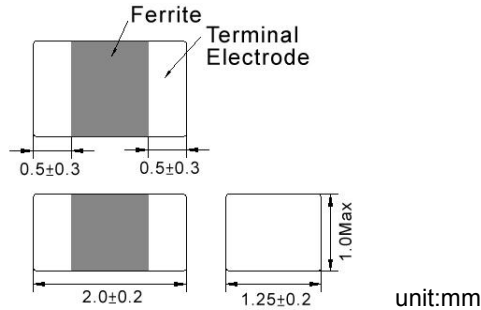


**Power Inductor AKPx Series**

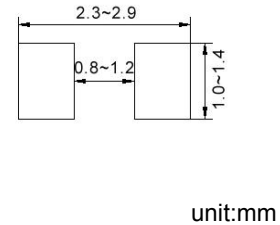
**Automotive  
AEC-Q200**

**AKPE00201210 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance	Test Freq.	RDC	Isat(mA)	Irms(mA)Max.		Tolerance
	(uH)			(Ω)±25%	Max.	85°C <sup>*1</sup>	
AKPE002012101R0□A2	1.0	3MHz,200mV	0.100	1400	1800	1300	20,30
AKPE002012102R2□A2	2.2	3MHz,200mV	0.125	500	1600	1200	20,30

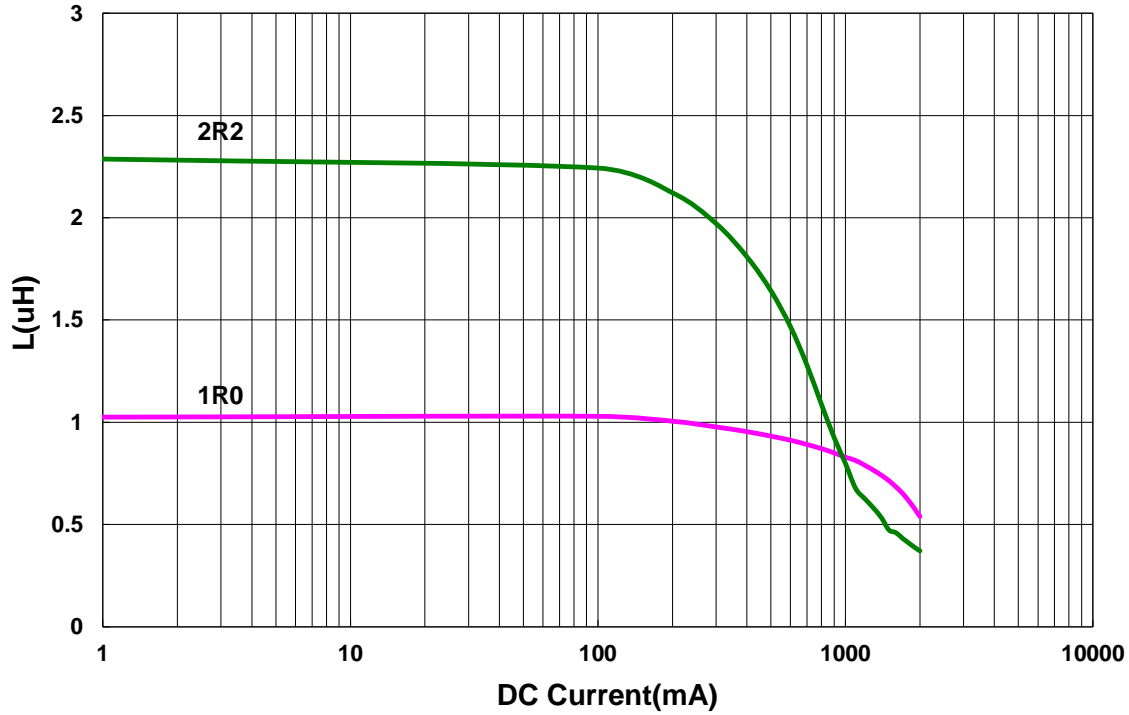
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with \*1, Rated Current is depending on the operating temperature
5. Measure Equipment :  
 L : Agilent HP4287A+16197A  
 RDC : HP 4338B, or equivalent

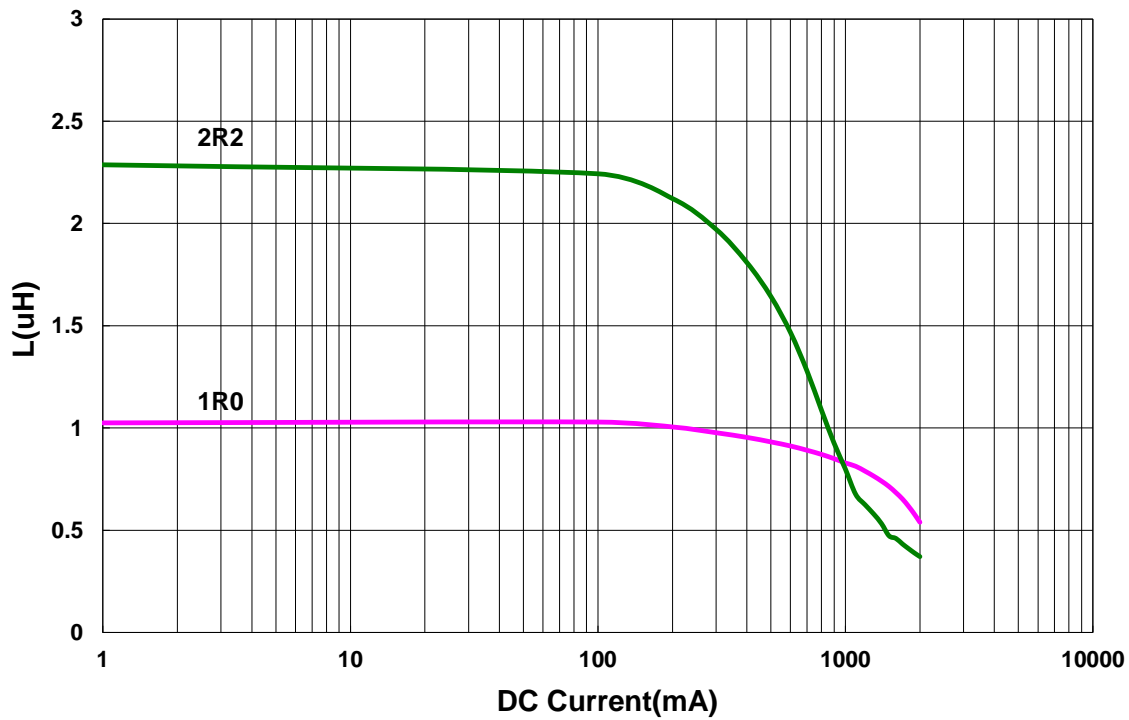
AKPE00201210 Type

■ Characteristics Graph

Inductance vs. DC Current



Inductance vs. DC Current

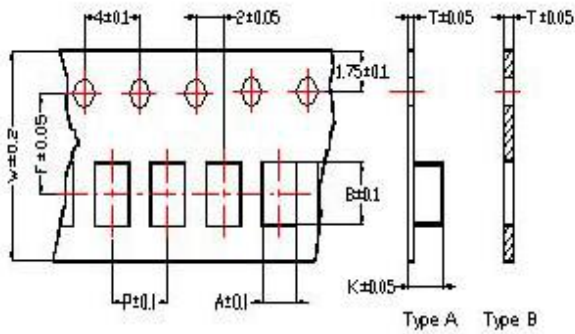


**Power Inductor AKPx Series**

**Automotive  
AEC-Q200**

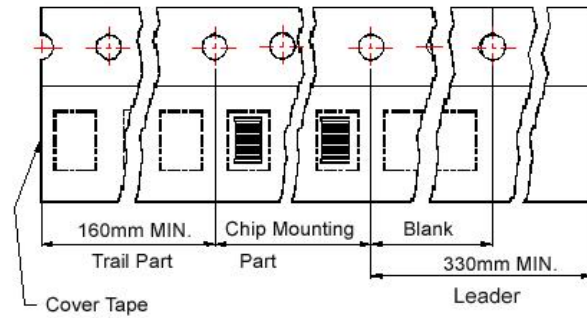
**■ Packaging**

**Tape Dimensions**

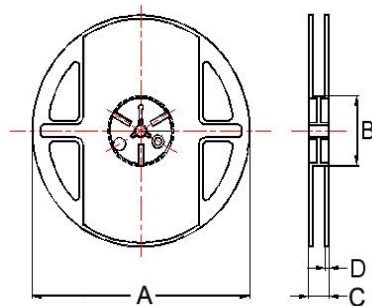


**Tape Material**

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	Tape	A	B	C	D	
AKPx001608DZ	1.05	1.85	0.95	8	4	3.5	-	B	178	60	12	1.5	4000
AKPx00201210	1.45	2.25	0.22	8	4	3.5	1.04	A	178	60	12	1.5	3000
AKPx00201610	1.8	2.2	0.22	8	4	3.5	1.15	A	178	60	12	1.5	3000
AKPx00252010	2.25	2.8	0.25	8	4	3.5	1.35	A	178	60	12	1.5	3000

**Power Inductor AMQx Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Metal
- Ultra High Current

**Part Numbering**

A	MQU	00	060603	100	M	A1
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	
			060630 6.8*7.3*2.8	1R0 1	M ±20%	
			101040 10.2*11.6*3.8	2R2 2.2		
				100 10		

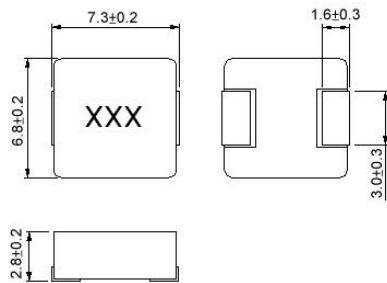
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor AMQx Series**

**Automotive  
AEC-Q200**

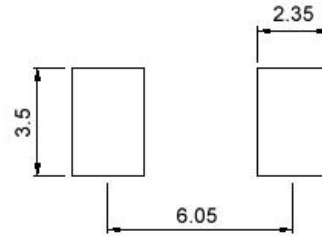
**AMQU00060630 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max.(Typ)	Isat(A) Max.(Typ)	Irms(A) Typ.	Tolerance (±%)	Marking
AMQU000606301R0MA1	1	100kHz,0.5V	9.5(8.5)	16(18)	12	20	1R0
AMQU000606301R5MA1	1.5	100kHz,0.5V	14(12.7)	14(16)	10	20	1R5
AMQU000606302R2MA1	2.2	100kHz,0.5V	18.7(17)	11(12)	8	20	2R2
AMQU000606303R3MA1	3.3	100kHz,0.5V	27.5(25)	8.0(9.0)	7	20	3R3
AMQU000606304R7MA1	4.7	100kHz,0.5V	39(35)	7.0(8.0)	6	20	4R7
AMQU000606306R8MA1	6.8	100kHz,0.5V	49(45)	5.5(6.5)	5.5	20	6R8
AMQU00060630100MA1	10	100kHz,0.5V	66(60)	4.8(5.5)	4	20	100

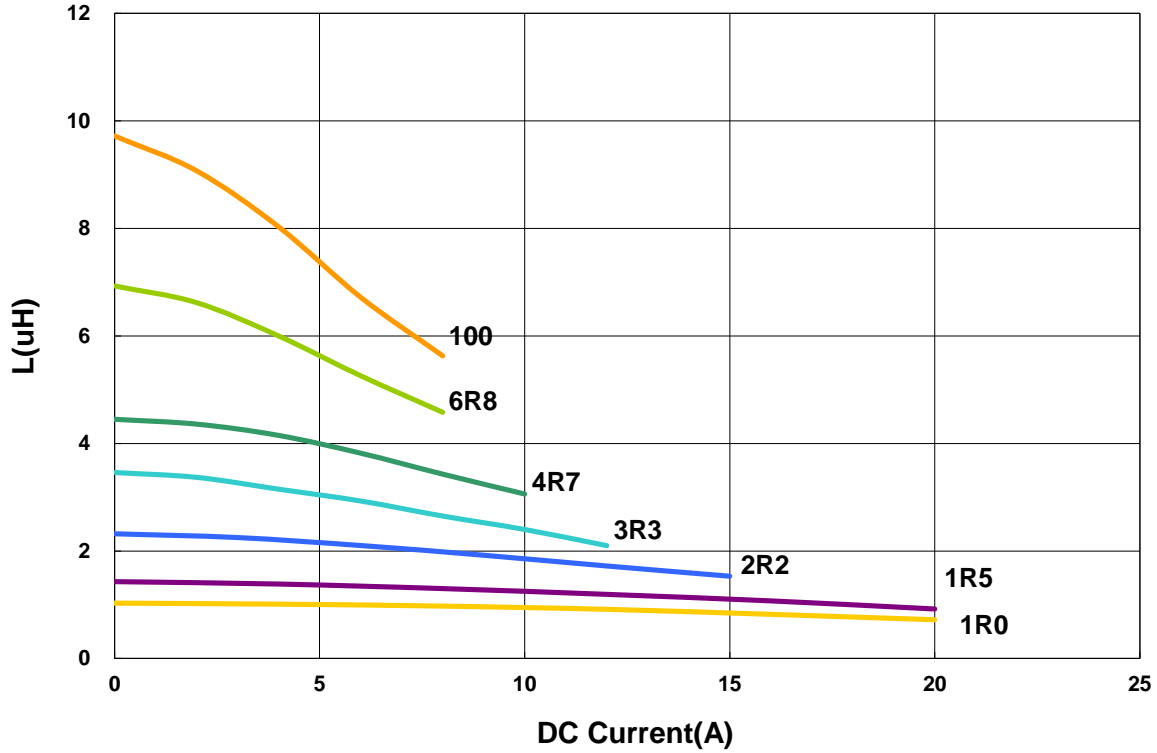
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
 L: WK3260B or WK6500P  
 RDC: CHEN HWA502 or 16502  
 Isat: WK3260B+WK3265B  
 I rms: CHROMA 1810

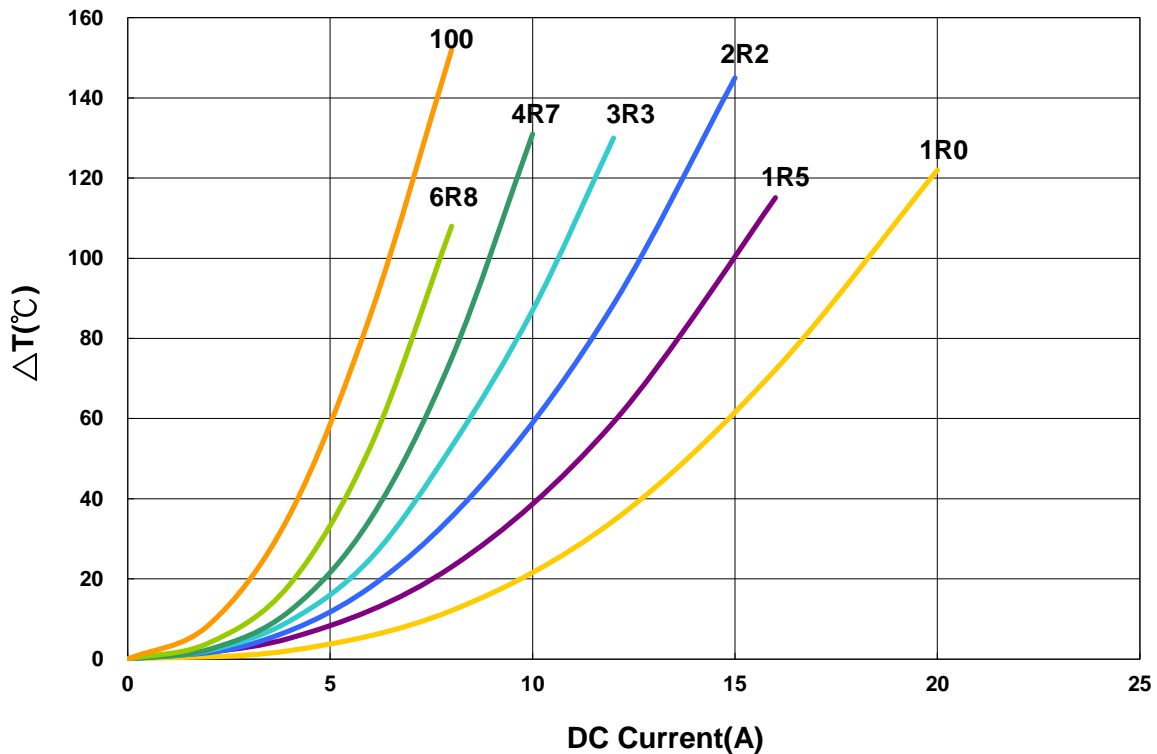
AMQU00060630 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



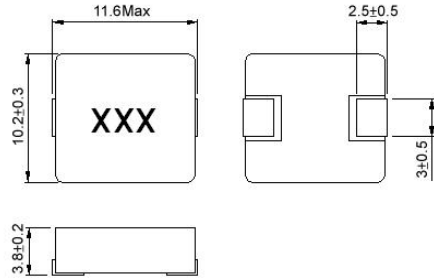


Power Inductor AMQx Series

Automotive  
AEC-Q200

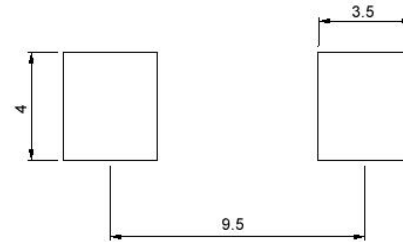
AMQU00101040 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max.(Typ)	Isat(A) Max.(Typ)	Irms(A) Typ.	Tolerance (±%)	Marking
AMQU001010401R0MA1	1	100kHz,0.5V	3.3(3.0)	20(24)	18	20	1R0
AMQU001010402R2MA1	2.2	100kHz,0.5V	6.5(5.9)	16(19)	14	20	2R2
AMQU001010403R3MA1	3.3	100kHz,0.5V	10.5(9.5)	13(16)	11	20	3R3
AMQU001010404R7MA1	4.7	100kHz,0.5V	15.5(14)	11(13.5)	9	20	4R7
AMQU001010406R8MA1	6.8	100kHz,0.5V	23(20)	9(12)	8	20	6R8
AMQU00101040100MA1	10	100kHz,0.5V	27(25)	6.5(8)	7	20	100

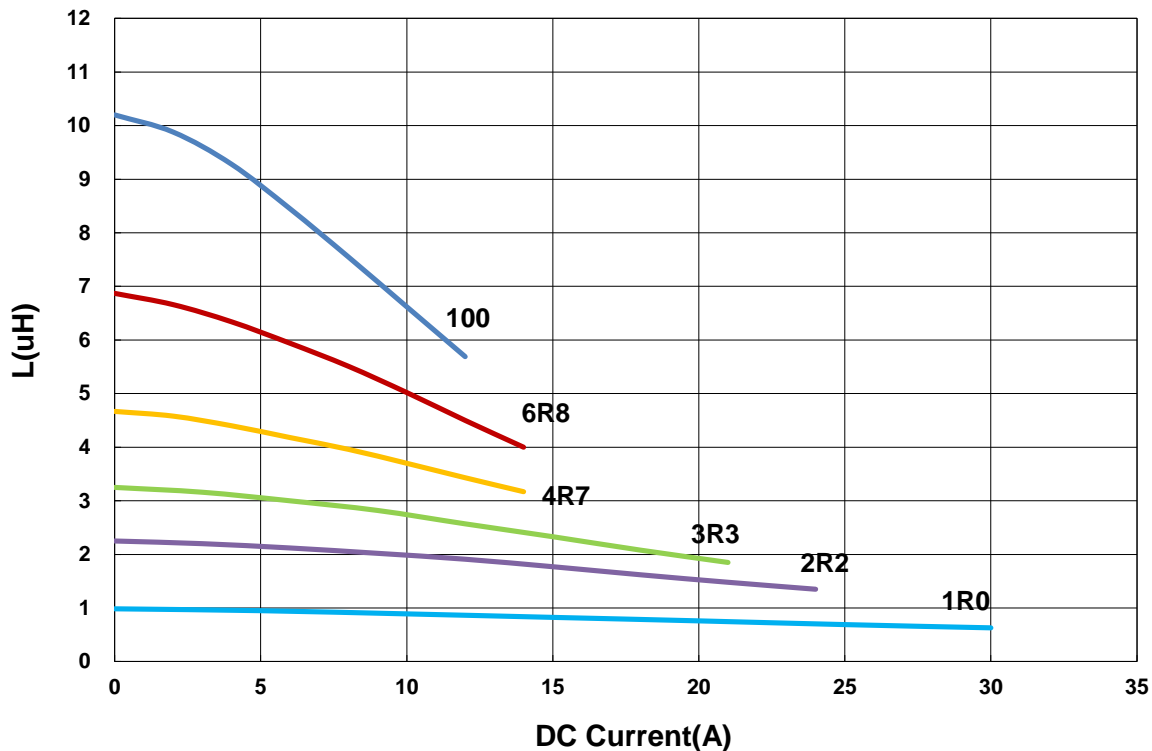
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
L: WK3260B or WK6500P  
RDC: CHEN HWA502 or 16502  
Isat: WK3260B+WK3265B  
I rms: CHROMA 1810

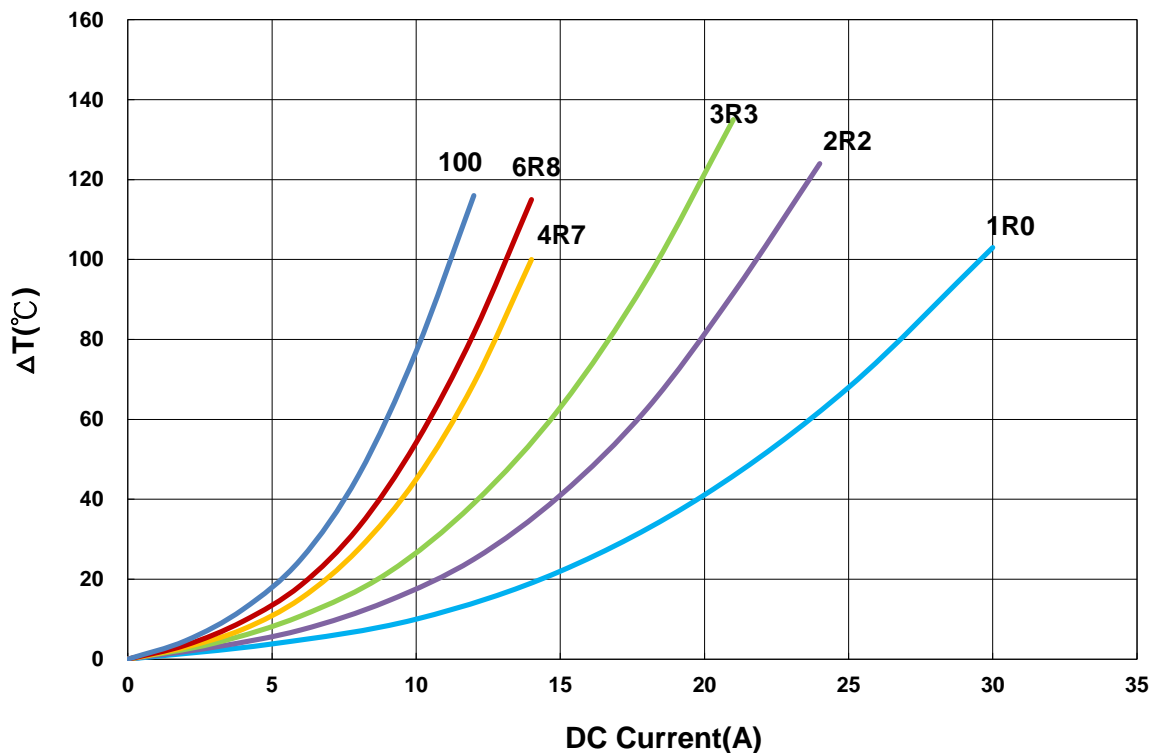
AMQU00101040 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

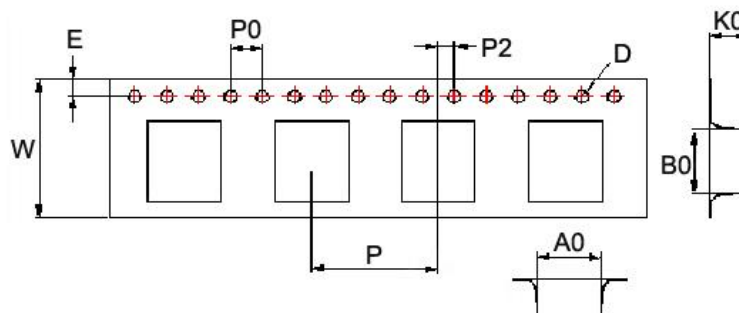


**Power Inductor AMQx Series**

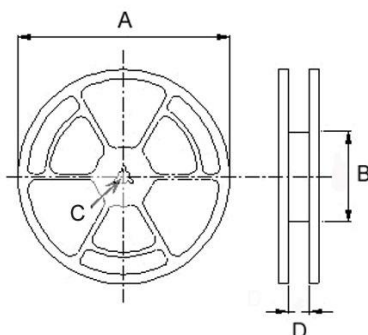
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
AMQU00060630	7.1	7.6	3.4	1.55	1.75	16	12	4	2	330	100	13	16	1000
AMQU00101040	10.6	11.7	4.25	1.55	1.75	24	16	4	2	330	100	13	24.4	500

**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Metal
- Ultra High Current

**Part Numbering**

A	MRU	00	040420	1R0	M	A1
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			040412 4.2x4.7x1.2	R22 0.22	M ±20%	
			040420 4.2x4.7x1.8	1R0 1.0		
			060630 6.8x7.3x2.8	3R3 3.3		
			101040 10.2x11.6x3.8			
			131365 12.8x13.8x6.5			

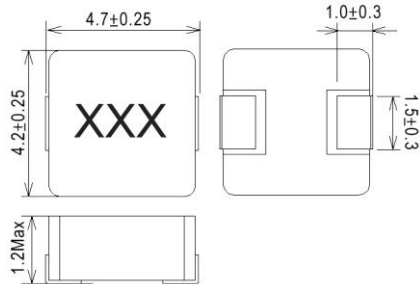
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

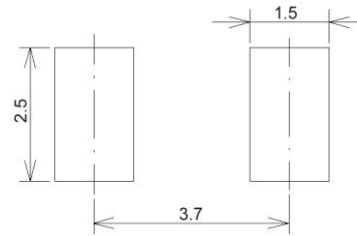
**AMRU00040412 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMRU00040412R22MA1	0.22	100kHz/0.5V	12(11)	15	8.5	20	R22
AMRU00040412R47MA1	0.47	100kHz/0.5V	20(18)	9	5	20	R47
AMRU000404121R0MA1	1.0	100kHz/0.5V	43(39)	6	4	20	1R0

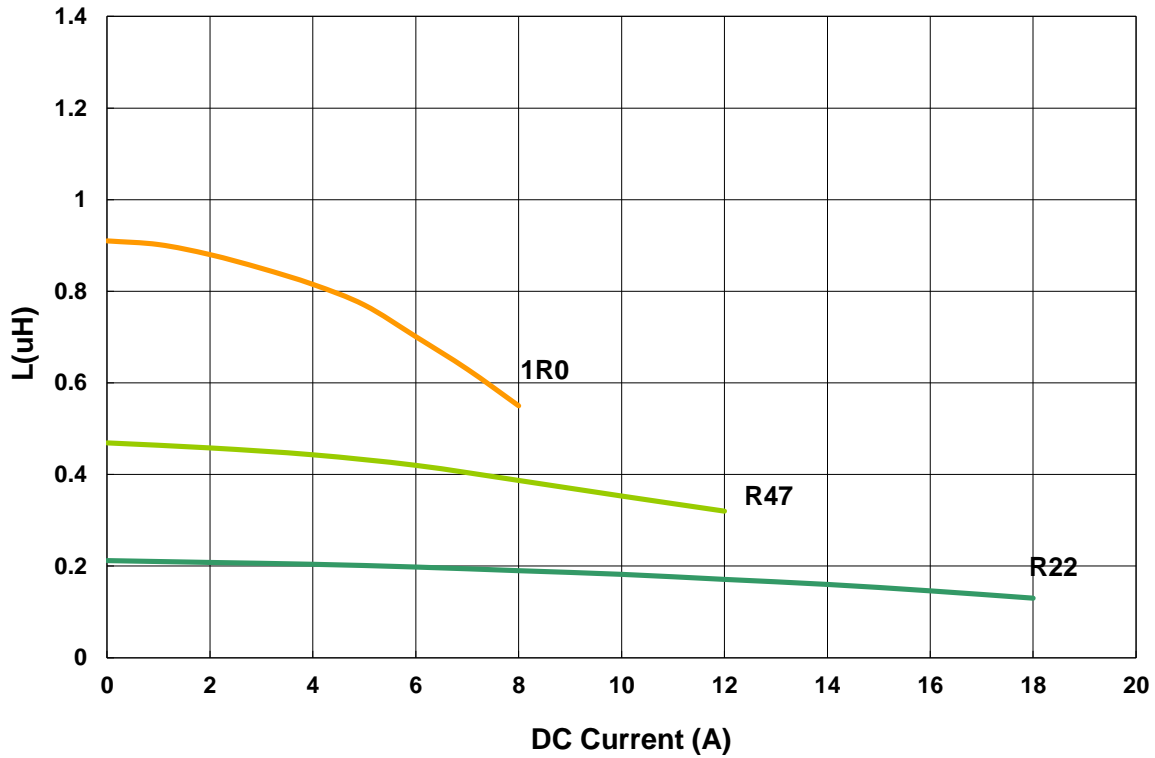
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
 L: WK3260B or WK6500P  
 RDC: CHEN HWA502 or 16502  
 Isat: WK3260B+WK3265B  
 Irms: CHROMA 1810

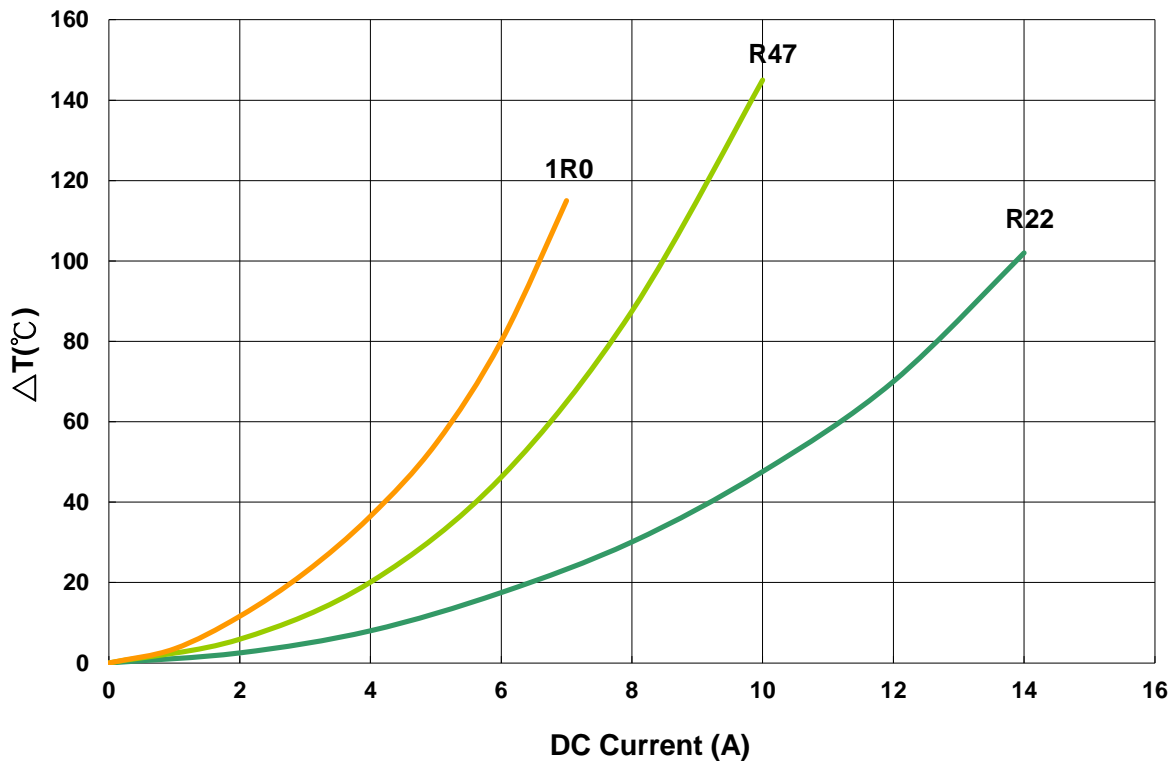
AMRU00040412 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

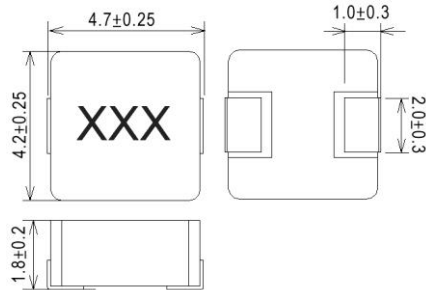


**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

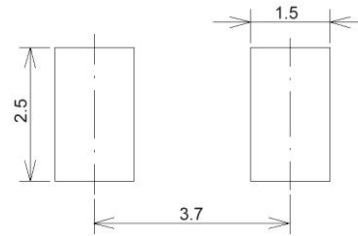
**AMRU00040420 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMRU00040420R47MB1	0.47	100kHz/0.5V	14(12)	10	7	20	R47
AMRU000404201R0MB1	1	100kHz/0.5V	27(24)	7	4.5	20	1R0
AMRU000404201R5MB1	1.5	100kHz/0.5V	46(38)	6	4	20	1R5
AMRU000404202R2MB1	2.2	100kHz/0.5V	55(50)	5	3	20	2R2
AMRU000404204R7MB1	4.7	100kHz/0.5V	105(95)	3.5	2.2	20	4R7

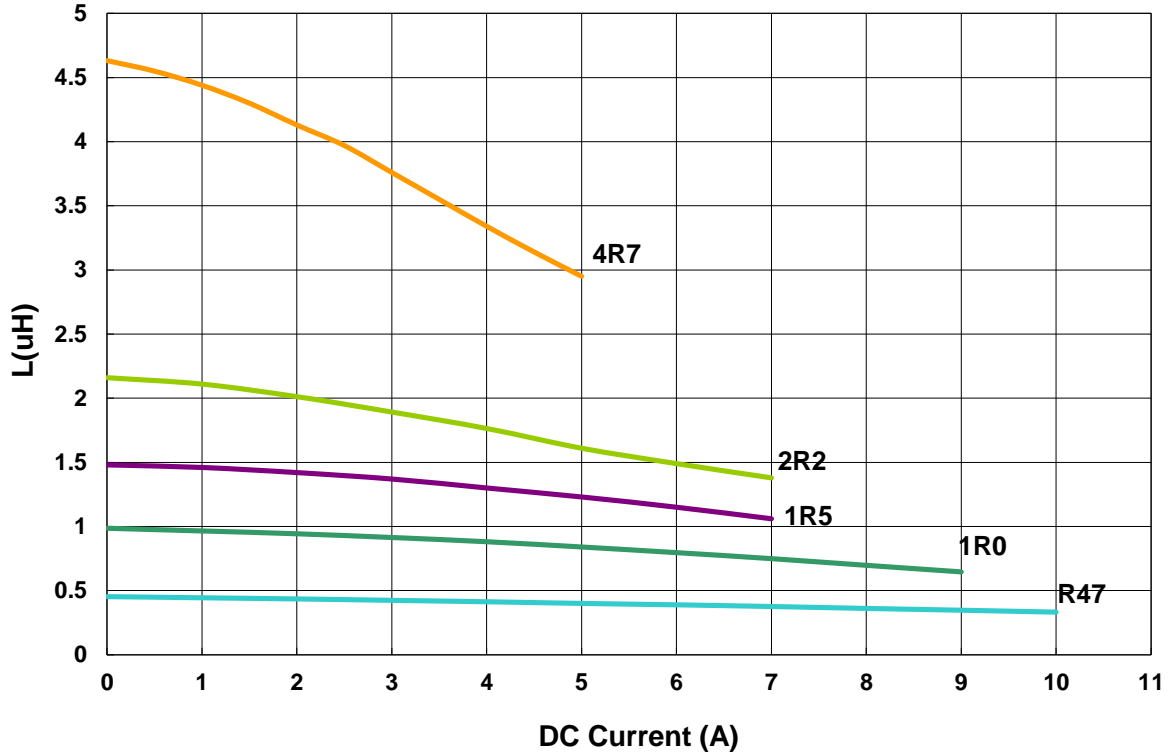
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
 L: WK3260B or WK6500P  
 RDC: CHEN HWA502 or 16502  
 Isat: WK3260B+WK3265B  
 I rms: CHROMA 1810

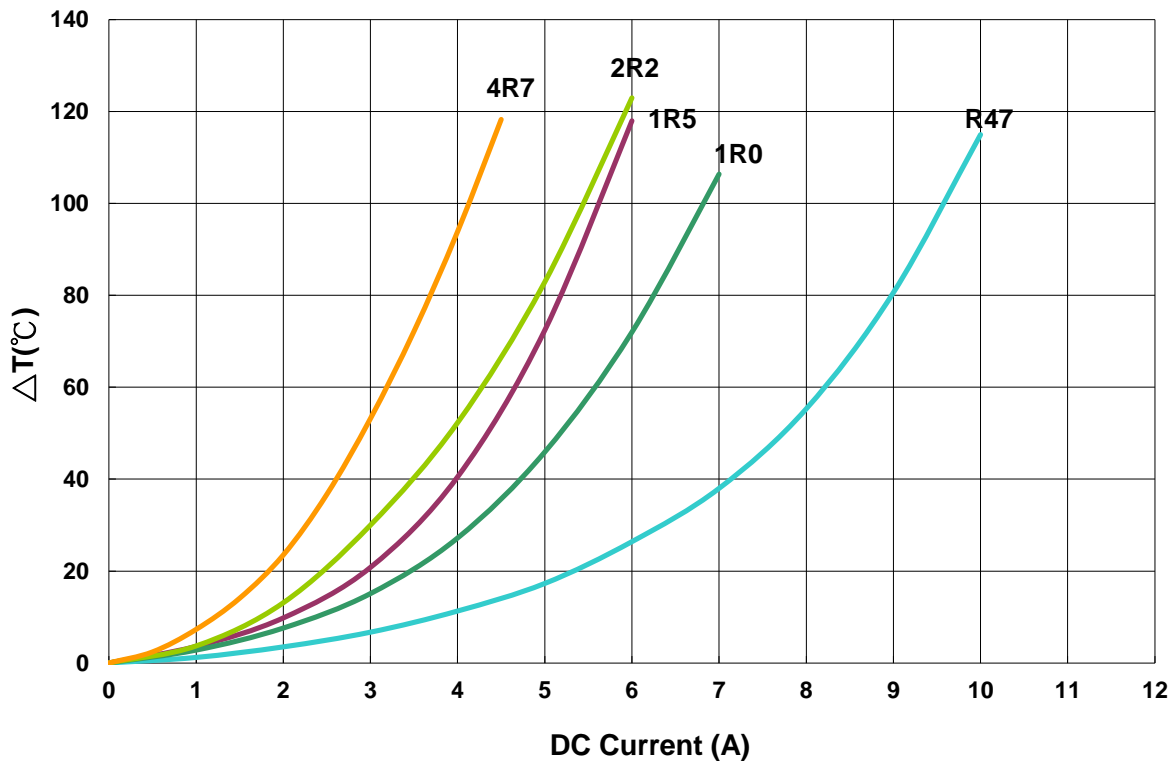
AMRU00040420 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



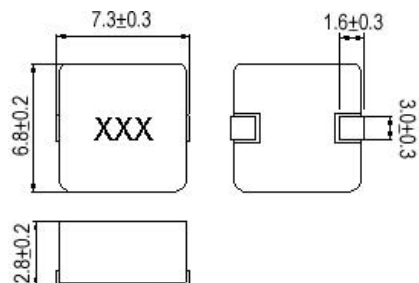


**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

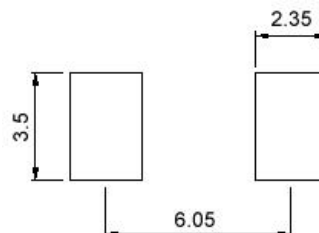
**AMRU00060630 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMRU00060630R47MA1	0.47	100kHz,0.5V	4.3(3.9)	20	16.5	20	R47
AMRU000606301R0MA1	1	100kHz,0.5V	10(9)	18	10	20	1R0
AMRU000606301R5MA1	1.5	100kHz,0.5V	14(13)	13	9	20	1R5
AMRU000606302R2MA1	2.2	100kHz,0.5V	20(18)	10	8	20	2R2
AMRU000606303R3MA1	3.3	100kHz,0.5V	28(25)	9	6.5	20	3R3
AMRU000606304R7MA1	4.7	100kHz,0.5V	40(35)	8	5.5	20	4R7
AMRU000606305R6MA1	5.6	100kHz,0.5V	45(38)	7	5	20	5R6
AMRU000606306R8MA1	6.8	100kHz,0.5V	49.5(45)	6	4.5	20	6R8
AMRU000606308R2MA1	8.2	100kHz,0.5V	55(50)	5.2	4.3	20	8R2
AMRU00060630100MA1	10	100kHz,0.5V	68(62)	5	4	20	100

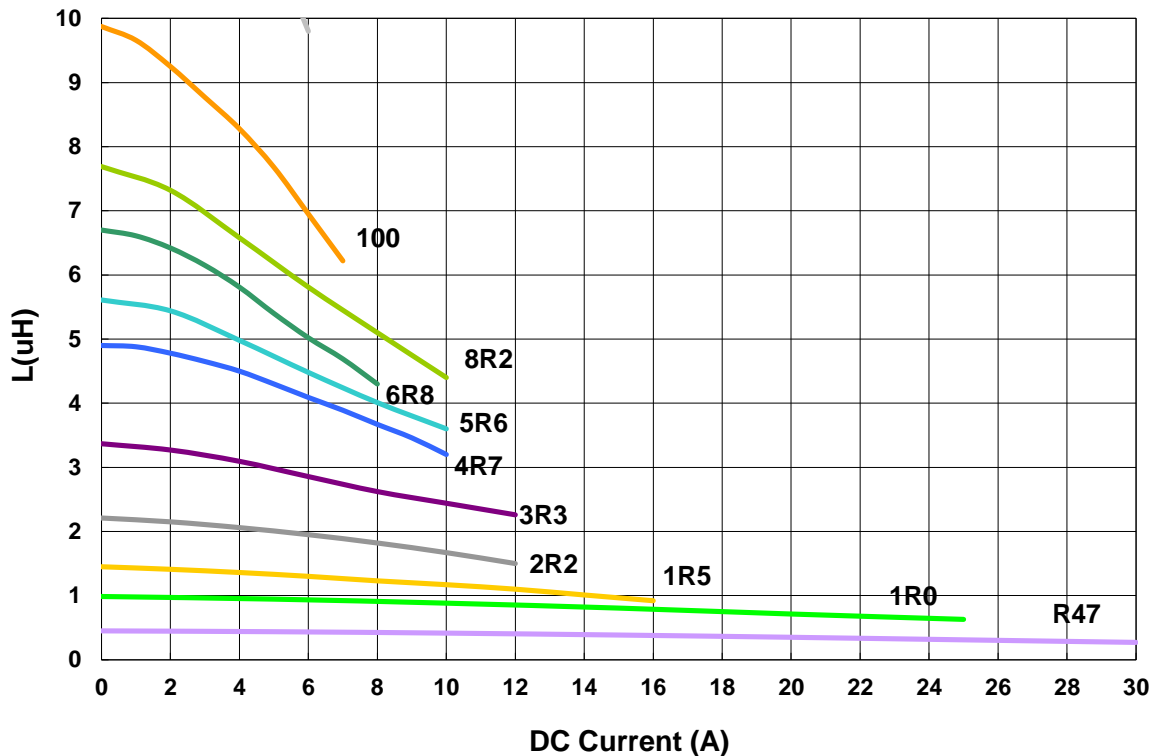
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
 L: WK3260B or WK6500P  
 RDC: CHEN HWA502 or 16502  
 Isat: WK3260B+WK3265B  
 I rms: CHROMA 1810

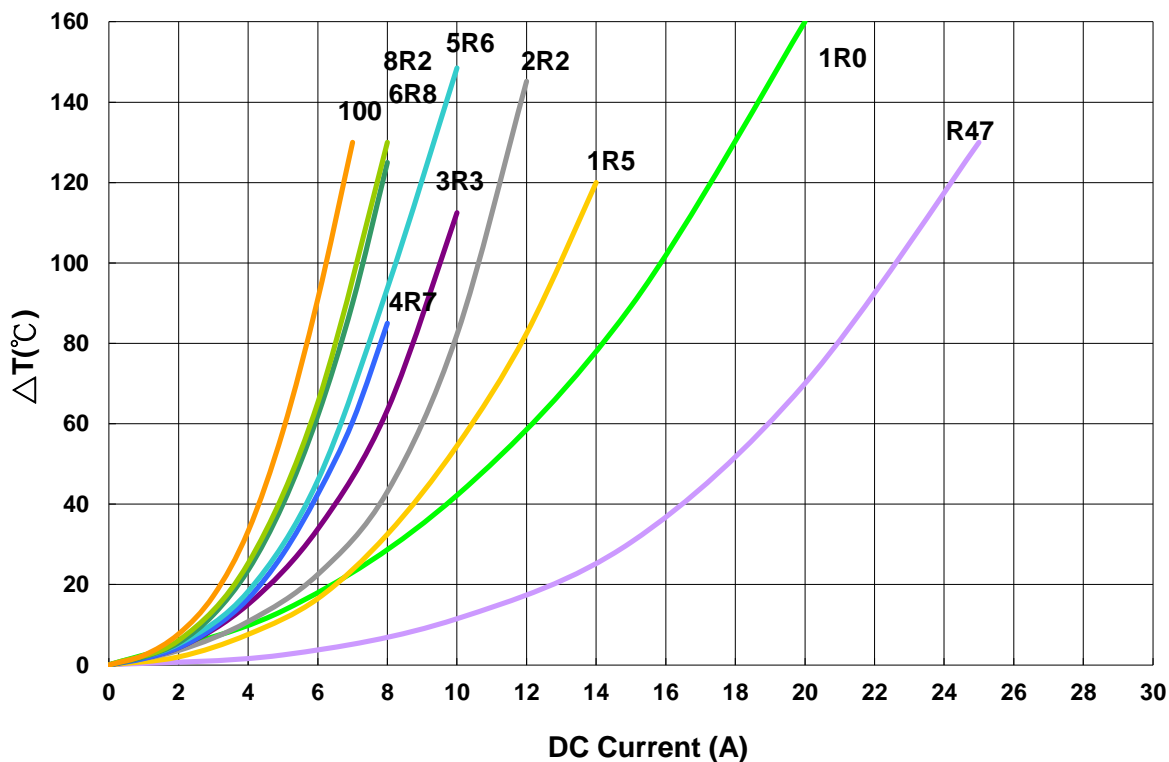
AMRU00060630 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

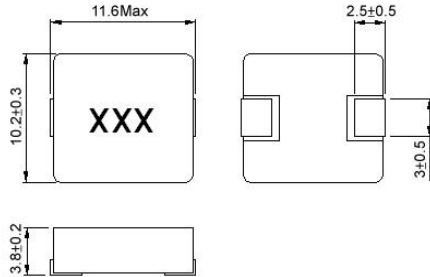


**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

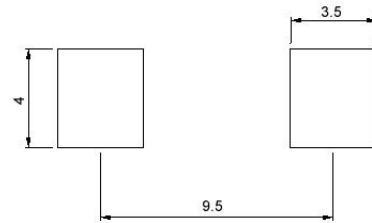
**AMRU00101040 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMRU001010401R0MA1	1	100kHz/0.5V	3.3(3.0)	20	18	20	1R0
AMRU001010402R2MA1	2.2	100kHz/0.5V	6.8(6.0)	16	14	20	2R2
AMRU001010403R3MA1	3.3	100kHz/0.5V	11(10)	13	11	20	3R3
AMRU001010404R7MA1	4.7	100kHz/0.5V	16(14.5)	11	9	20	4R7
AMRU001010406R8MA1	6.8	100kHz/0.5V	24(20)	9	8	20	6R8
AMRU00101040100MA1	10	100kHz/0.5V	30(27)	7	6.5	20	100

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Absolute maximum voltage 30VDC
5. Measure Equipment:  
L: WK3260B or WK6500P  
RDC: CHEN HWA502 or 16502  
Isat: WK3260B+WK3265B  
I rms: CHROMA 1810

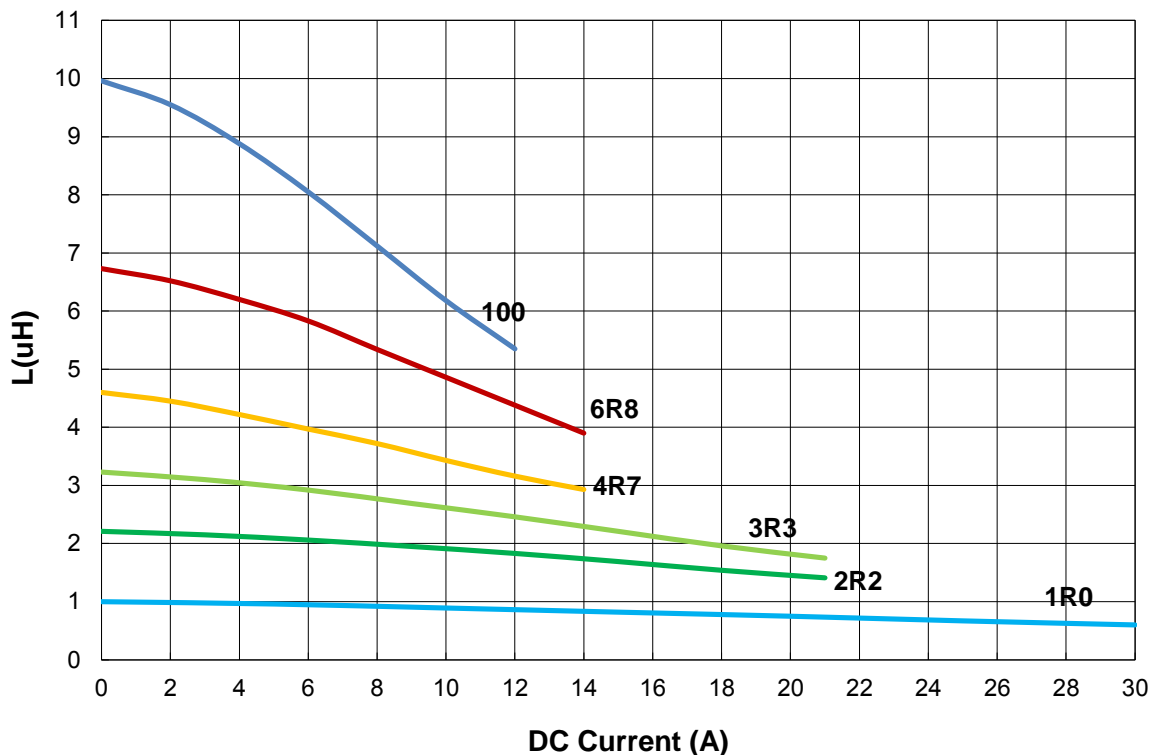
**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

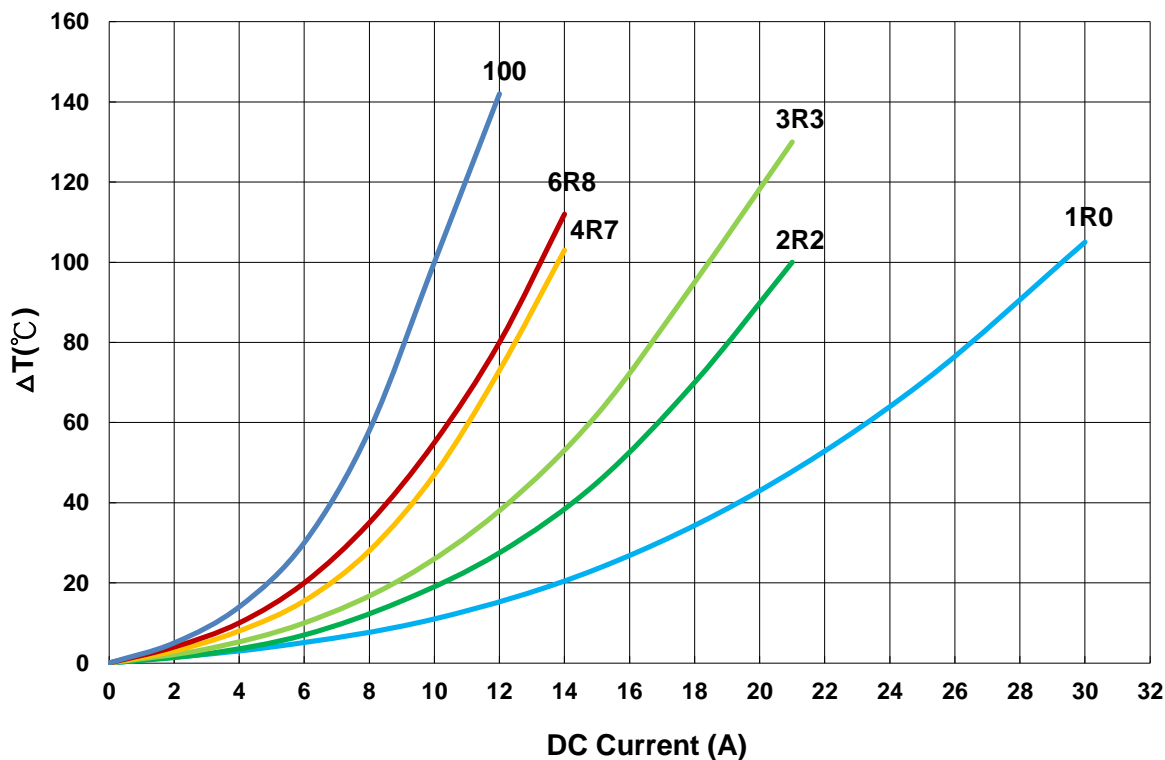
**AMRU00101040 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

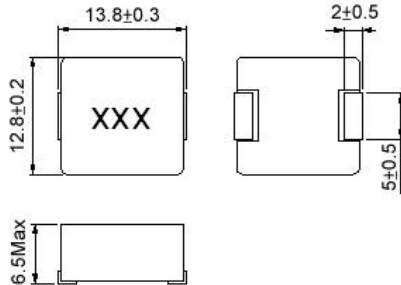


**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

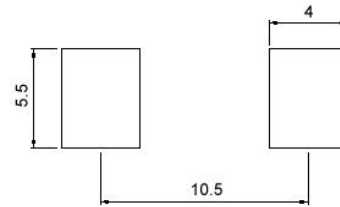
**AMRU00131365 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMRU001313651R0MA1	1	100kHz/0.5V	2.1(1.9)	30	28	20	1R0
AMRU001313651R5MA1	1.5	100kHz/0.5V	3.0(2.7)	28	23	20	1R5
AMRU001313652R2MA1	2.2	100kHz/0.5V	4.4(3.7)	25	18	20	2R2
AMRU001313653R3MA1	3.3	100kHz/0.5V	6.8(5.7)	22	16	20	3R3
AMRU001313654R7MA1	4.7	100kHz/0.5V	7.7(7.0)	18	14	20	4R7
AMRU00131365100MA1	10	100kHz/0.5V	18(16.5)	12	10	20	100
AMRU00131365220MA1	22	100kHz/0.5V	40(35)	7	6	20	220
AMRU00131365330MA1	33	100kHz/0.5V	55(50)	6	5	20	330

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment:  
 L: WK3260B or WK6500P  
 RDC: CHEN HWA502 or 16502  
 Isat: WK3260B+WK3265B  
 Irms: CHROMA 1810

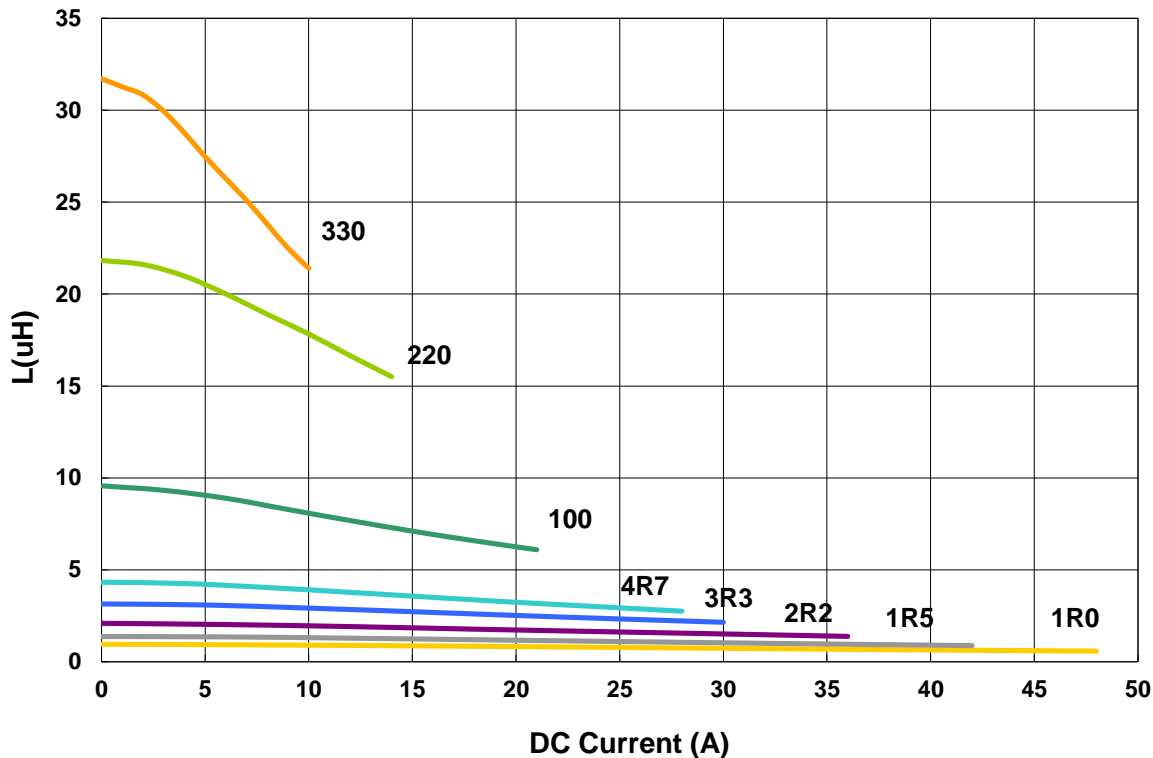
**Power Inductor AMRx Series**

**Automotive  
AEC-Q200**

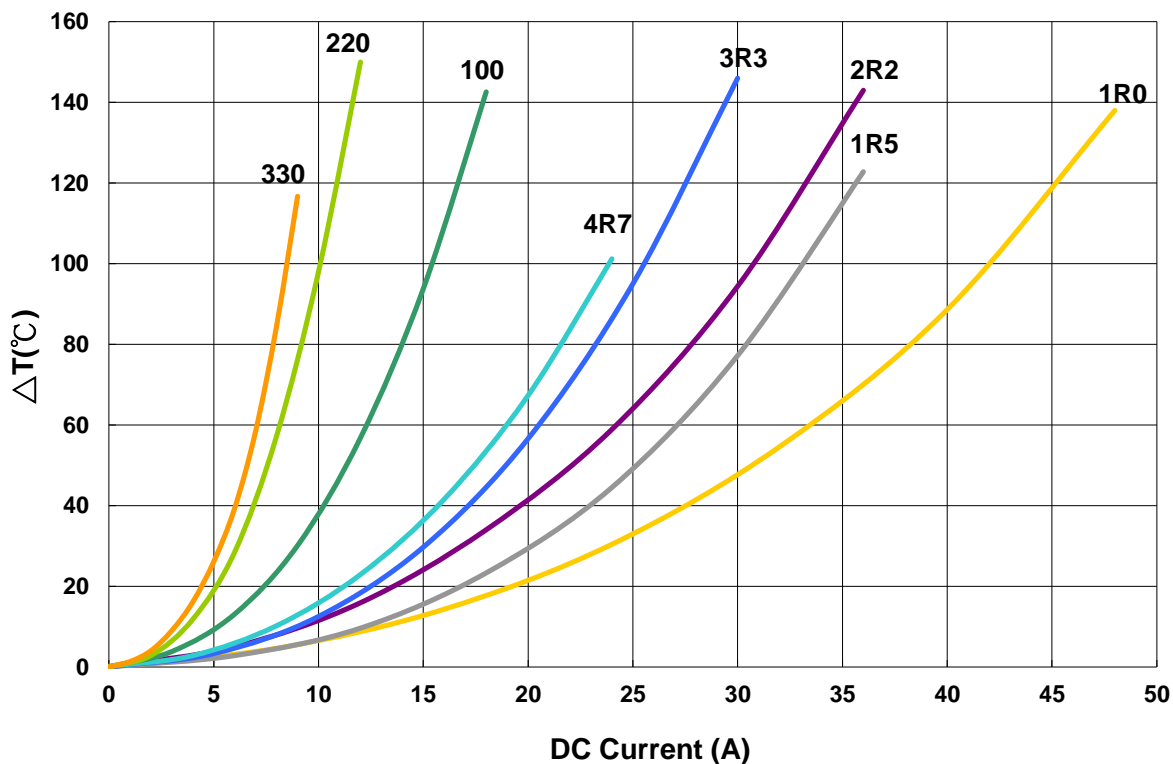
**AMRU00131365 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

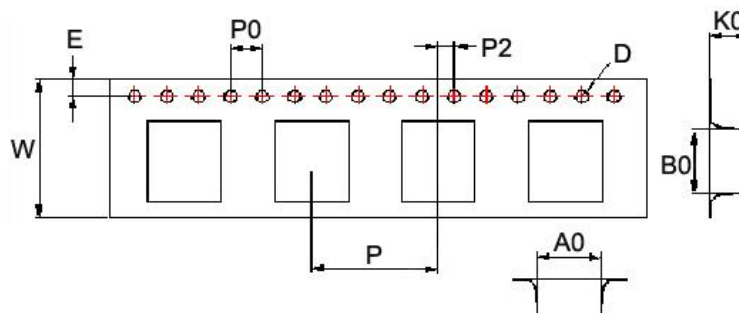


**Power Inductor AMRx Series**

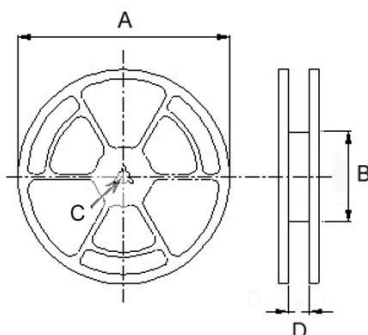
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	
AMRU00040412	4.4	4.9	1.5	1.55	1.75	12	8	4	2	330	100	13	13.4	2000
AMRU00040420	4.3	4.9	2.4	1.55	1.75	12	8	4	2	330	100	13	13.4	2000
AMRU00060630	7.1	7.6	3.4	1.55	1.75	16	12	4	2	330	100	13	16	1000
AMRU00101040	10.6	11.7	4.25	1.55	1.75	24	16	4	2	330	100	13	24.4	500
AMRU00131365	13.1	14.6	6.75	1.55	1.75	24	16	4	2	330	100	13	24.4	500

**Power Inductor AMDU Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Metal
- Ultra High Current

**Part Numbering**

A	MDU	00	101010	100	M	A1
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			101010 10.2x9.5x10.85	100 10 150 15 220 22	M ±20%	

This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

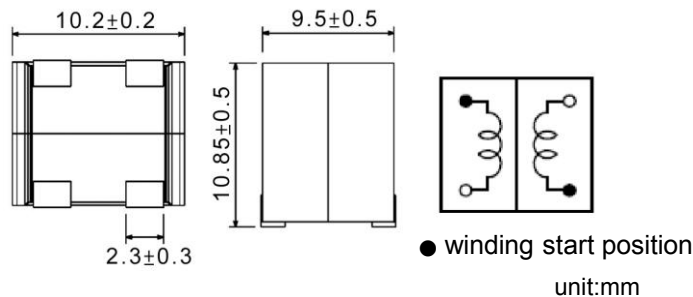


**Power Inductor AMDU Series**

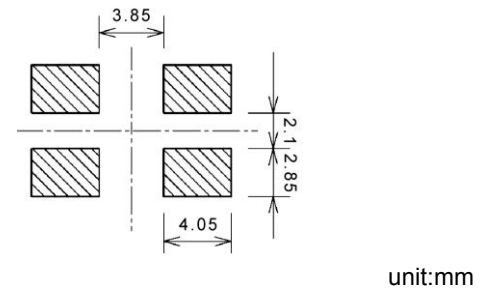
**Automotive  
AEC-Q200**

**AMDU00101010 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMDU00101010100MA1	10	100kHz/0.5V	24(20)	7.5	4.8	20	100
AMDU00101010150MA1	15	100kHz/0.5V	35(30)	5.5	3.8	20	150
AMDU00101010220MA1	22	100kHz/0.5V	53(48)	4.5	3.0	20	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.  
Circuit design 125°C under worst case operating conditions. Component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Absolute maximum voltage 30VDC
- Measure Equipment:  
L: WK3260B or WK6500P  
RDC: CHEN HWA502 or 16502  
Isat: WK3260B+WK3265B  
Irms: CHROMA 1810

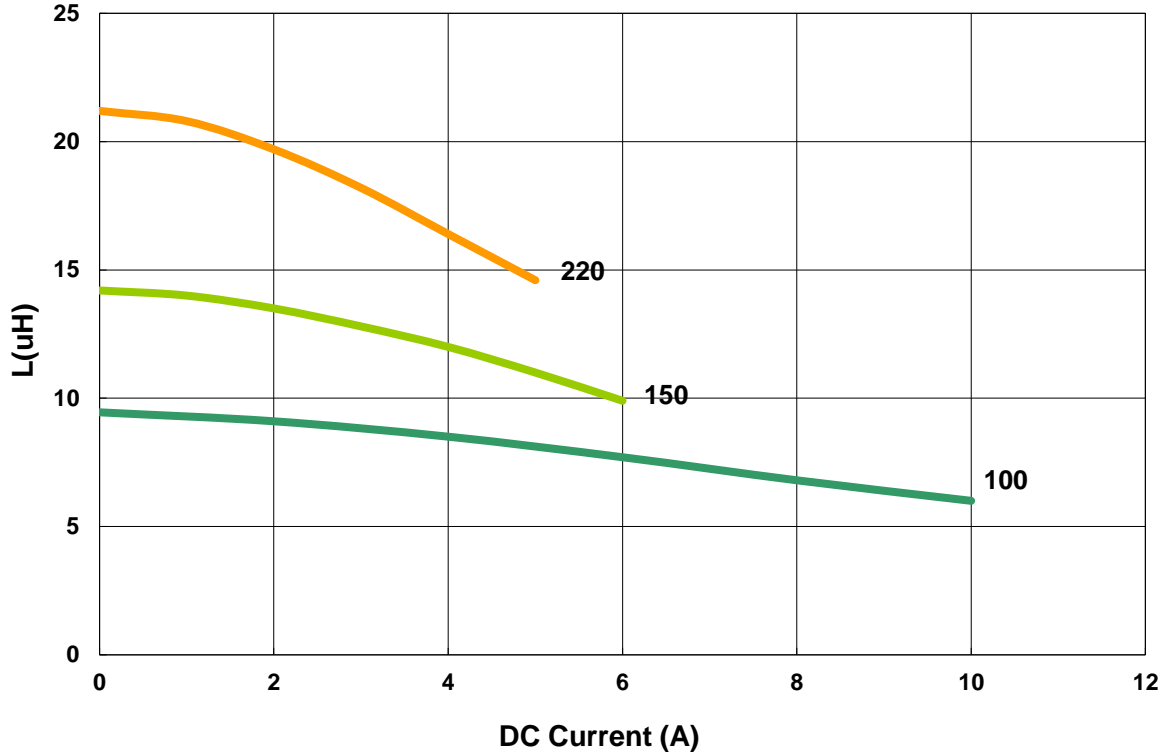
**Power Inductor AMDU Series**

**Automotive  
AEC-Q200**

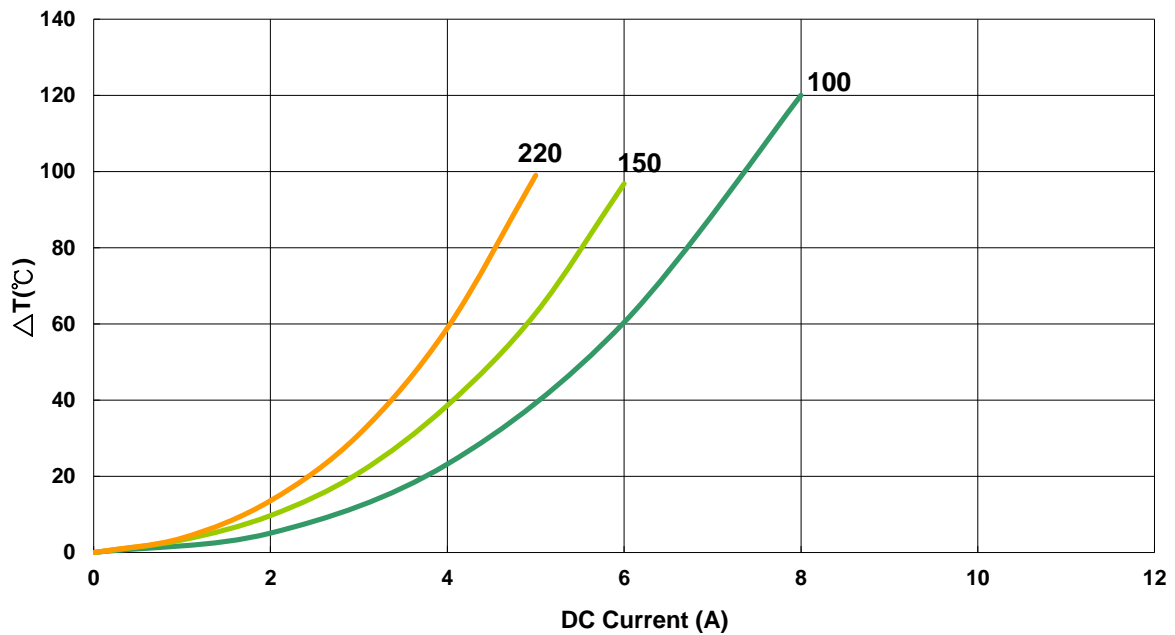
**AMDU00101010 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

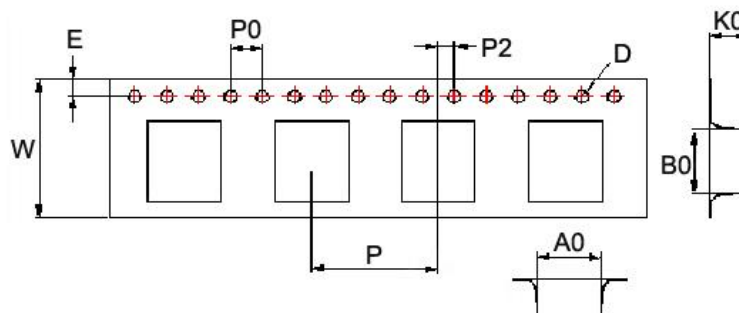


**Power Inductor AMDU Series**

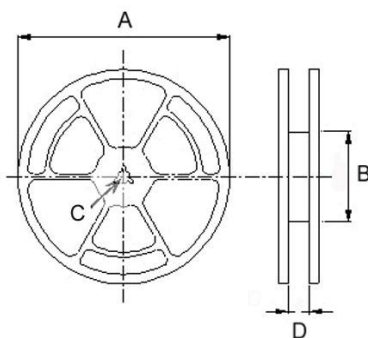
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
AMDU00101010	10.2	10.7	11.5	1.55	1.75	24	16	4	2	330	100	13	24.4	200

**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Magnetic Resin LVx
- Ferrite
- High Current

**Part Numbering**

A	WVS	00	606045	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			404012 4.0x4.0x1.2	R47 0.47	M ±20%	00 General
			404018 4.0x4.0x1.8	1R0 1.0	T ±30%	L1 Low DCR
			505020 5.0x5.0x2.0	101 100		
			505040 5.0x5.0x4.0			
			606020 6.0x6.0x2.0			
			606028 6.0x6.0x2.8			
			606045 6.0x6.0x4.5			
			808040 8.0x8.0x4.0			

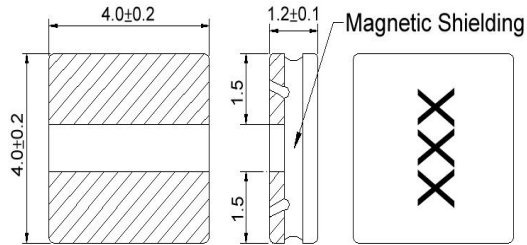
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

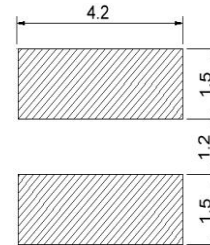
**AWVS00404012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS004040121R0□00	1.0	100kHz,1V	48	2.50(2.20)	1.70(1.50)	20,30	1R0
AWVS004040121R5□00	1.5	100kHz,1V	58	2.10(1.80)	1.60(1.40)	20,30	1R5
AWVS004040122R2□00	2.2	100kHz,1V	65	1.70(1.50)	1.50(1.30)	20,30	2R2
AWVS004040123R3□00	3.3	100kHz,1V	90	1.30(1.10)	1.40(1.20)	20,30	3R3
AWVS004040124R7□00	4.7	100kHz,1V	110	1.10(0.90)	1.20(1.00)	20,30	4R7
AWVS004040126R8□00	6.8	100kHz,1V	135	0.90(0.81)	1.00(0.94)	20,30	6R8
AWVS00404012100□00	10	100kHz,1V	190	0.78(0.70)	0.90(0.81)	20,30	100
AWVS00404012150□00	15	100kHz,1V	250	0.65(0.58)	0.85(0.76)	20,30	150
AWVS00404012220□00	22	100kHz,1V	400	0.52(0.46)	0.75(0.67)	20,30	220
AWVS00404012330□00	33	100kHz,1V	600	0.44(0.39)	0.70(0.63)	20,30	330
AWVS00404012470□00	47	100kHz,1V	930	0.35(0.31)	0.50(0.45)	20,30	470

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

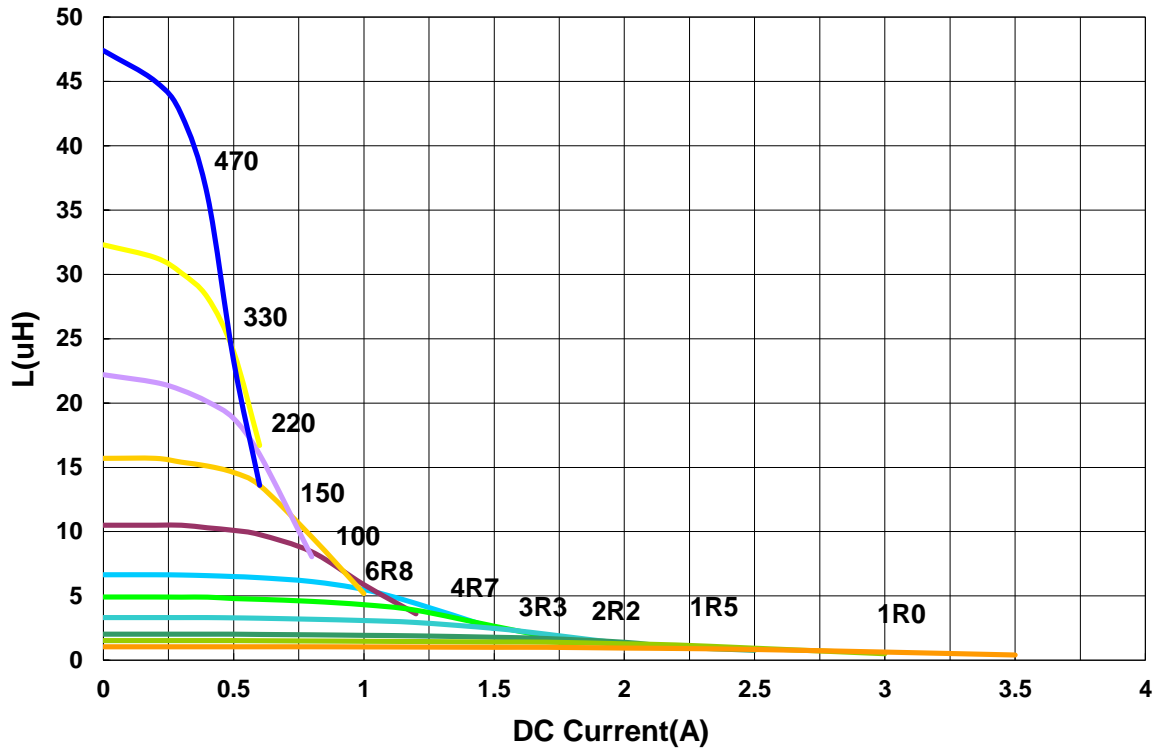
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

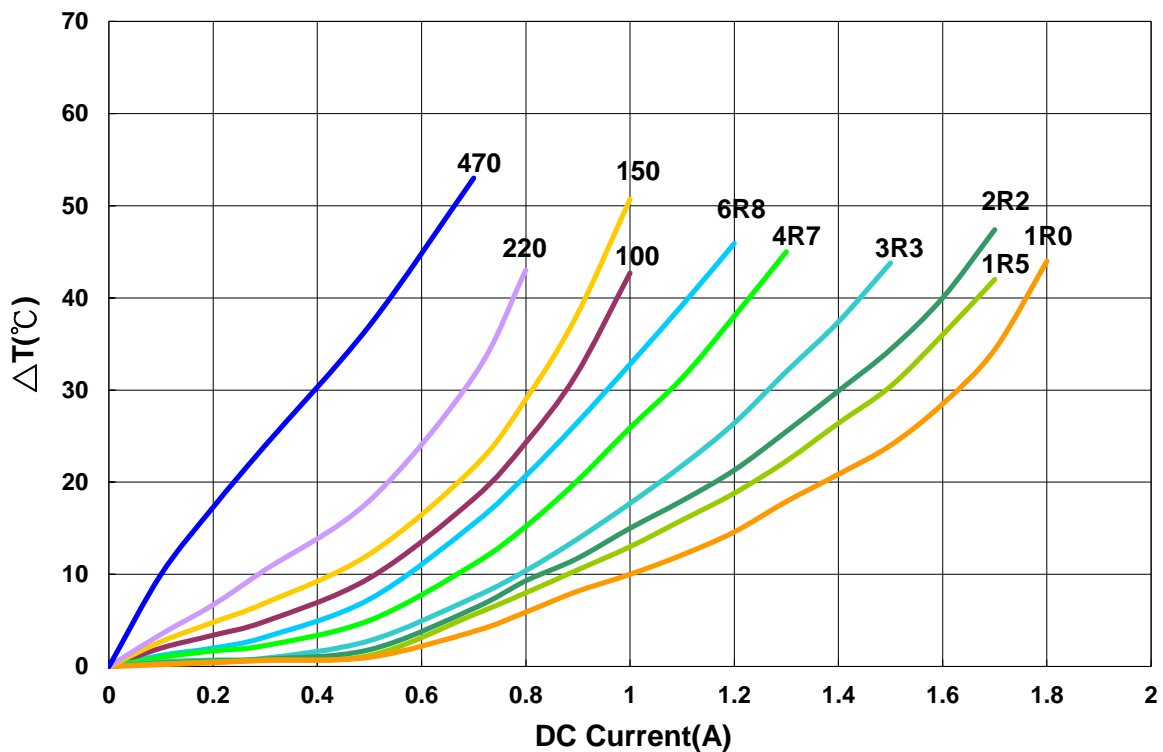
**AWVS00404012 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

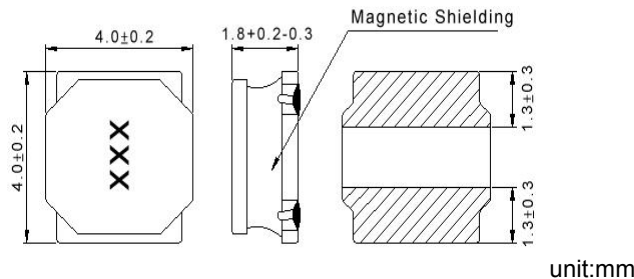


**Power Inductor AWVS Series**

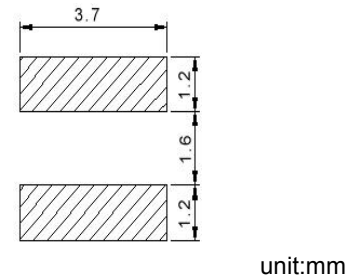
**Automotive  
AEC-Q200**

**AWVS00404018 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±20%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS004040181R0□00	1	100kHz,1V	32	4.10(3.60)	2.80(2.50)	20,30	1R0
AWVS004040181R5□00	1.5	100kHz,1V	40	3.30(2.90)	2.60(2.30)	20,30	1R5
AWVS004040181R8□00	1.8	100kHz,1V	55	2.80(2.50)	2.50(2.20)	20,30	1R8
AWVS004040182R2□00	2.2	100kHz,1V	60	2.80(2.50)	2.50(2.20)	20,30	2R2
AWVS004040182R3□00	2.3	100kHz,1V	60	2.80(2.50)	2.50(2.20)	20,30	2R3
AWVS004040183R3□00	3.3	100kHz,1V	70	2.20(1.90)	2.10(1.80)	20,30	3R3
AWVS004040183R6□00	3.6	100kHz,1V	75	2.10(1.80)	1.90(1.70)	20,30	3R6
AWVS004040183R9□00	3.9	100kHz,1V	75	2.10(1.80)	1.90(1.70)	20,30	3R9
AWVS004040184R7□00	4.7	100kHz,1V	90	2.00(1.80)	1.70(1.50)	20,30	4R7
AWVS004040186R8□00	6.8	100kHz,1V	110	1.60(1.40)	1.50(1.30)	20,30	6R8
AWVS004040188R2□00	8.2	100kHz,1V	155	1.50(1.30)	1.30(1.10)	20,30	8R2
AWVS00404018100□00	10	100kHz,1V	170	1.40(1.20)	1.20(1.00)	20,30	100
AWVS00404018150□00	15	100kHz,1V	250	1.00(0.90)	1.00(0.90)	20,30	150
AWVS00404018220□00	22	100kHz,1V	350	0.90(0.81)	0.85(0.76)	20,30	220
AWVS00404018330□00	33	100kHz,1V	530	0.80(0.72)	0.70(0.63)	20,30	330
AWVS00404018470□00	47	100kHz,1V	720	0.70(0.63)	0.56(0.50)	20,30	470
AWVS00404018680□00	68	100kHz,1V	1000	0.56(0.50)	0.45(0.40)	20,30	680
AWVS00404018101□00	100	100kHz,1V	1500	0.46(0.41)	0.38(0.34)	20,30	101
AWVS00404018151□00	150	100kHz,1V	2500	0.35(0.31)	0.30(0.27)	20,30	151
AWVS00404018221□00	220	100kHz,1V	4000	0.28(0.25)	0.23(0.20)	20,30	221

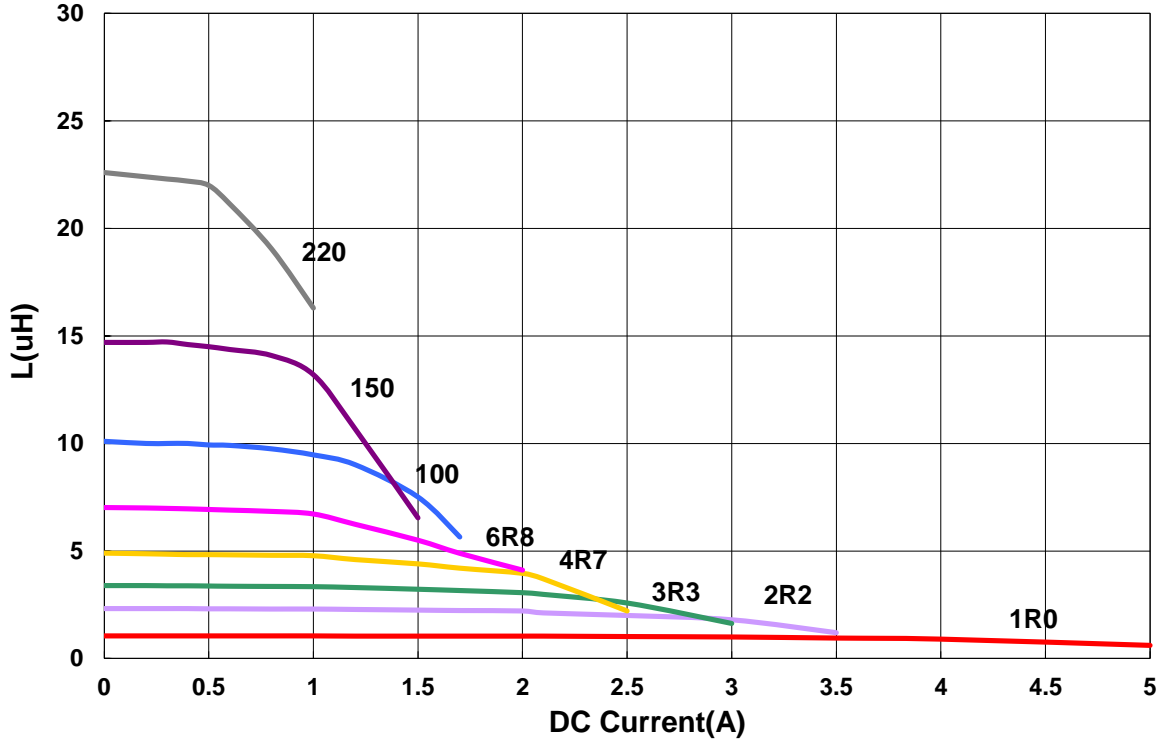
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

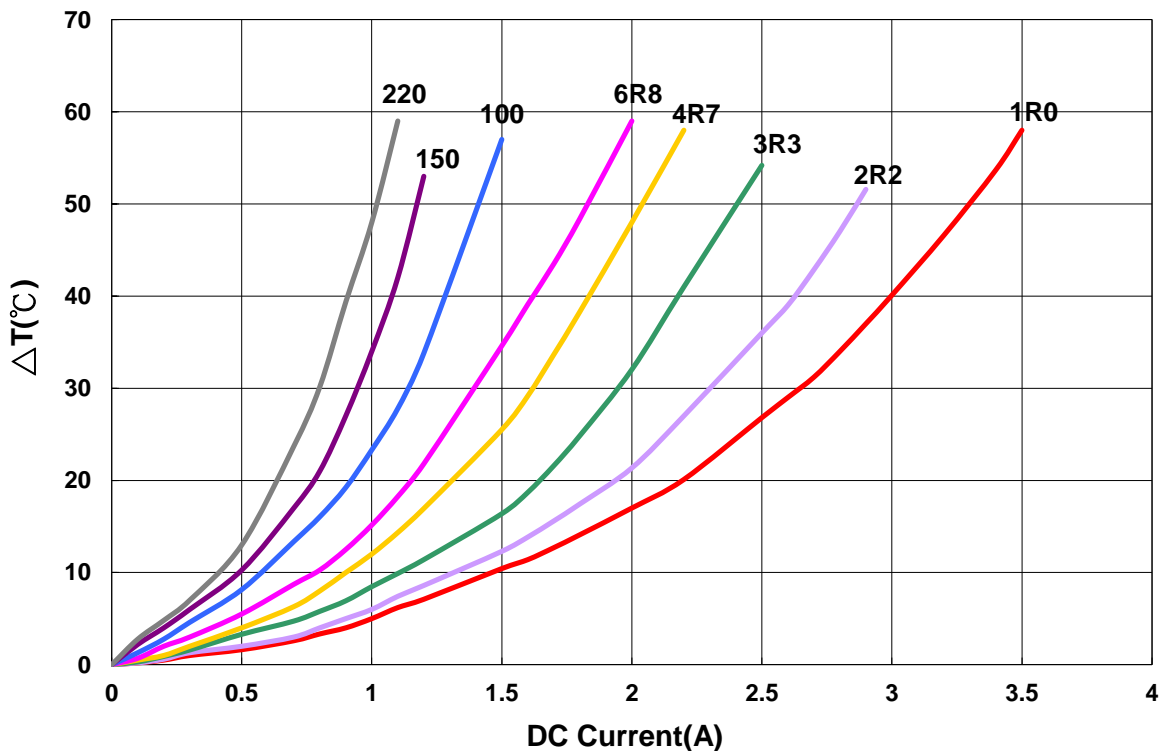
AWVS00404018 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



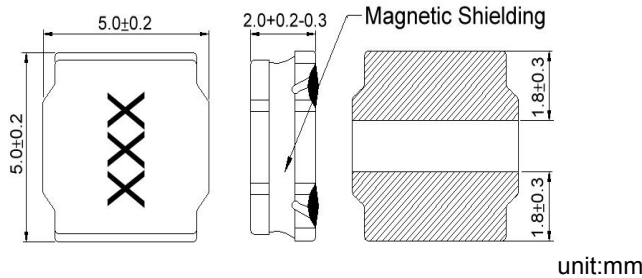


**Power Inductor AWVS Series**

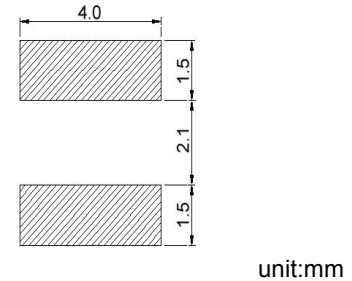
**Automotive  
AEC-Q200**

**AWVS00505020 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±20%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS005050201R0□00	1.0	100kHz,1V	21	5.10(4.50)	4.00(3.60)	20,30	1R0
AWVS005050201R2□00	1.2	100kHz,1V	21	4.80(4.30)	3.80(3.40)	30	1R2
AWVS005050201R5□00	1.5	100kHz,1V	26	4.20(3.70)	3.50(3.10)	20,30	1R5
AWVS005050202R2□00	2.2	100kHz,1V	35	3.40(3.00)	3.20(2.80)	20,30	2R2
AWVS005050202R7□00	2.7	100kHz,1V	38	3.40(3.00)	3.20(2.80)	20,30	2R7
AWVS005050203R3□00	3.3	100kHz,1V	48	3.05(2.70)	2.80(2.50)	20,30	3R3
AWVS005050204R7□00	4.7	100kHz,1V	60	2.20(1.90)	2.90(2.60)	20,30	4R7
AWVS005050205R6□00	5.6	100kHz,1V	82	2.05(1.80)	2.00(1.80)	20,30	5R6
AWVS005050206R8□00	6.8	100kHz,1V	90	2.00(1.80)	1.80(1.60)	20,30	6R8
AWVS00505020100□00	10	100kHz,1V	120	1.60(1.44)	1.60(1.40)	20,30	100
AWVS00505020150□00	15	100kHz,1V	190	1.30(1.17)	1.20(1.00)	20,30	150
AWVS00505020220□00	22	100kHz,1V	260	1.00(0.90)	1.00(0.90)	20,30	220
AWVS00505020330□00	33	100kHz,1V	460	0.80(0.72)	0.75(0.67)	20,30	330
AWVS00505020470□00	47	100kHz,1V	580	0.65(0.58)	0.65(0.58)	20,30	470

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A  
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
Isat: Agilent HP4284A  
I rms: Agilent HP4284A

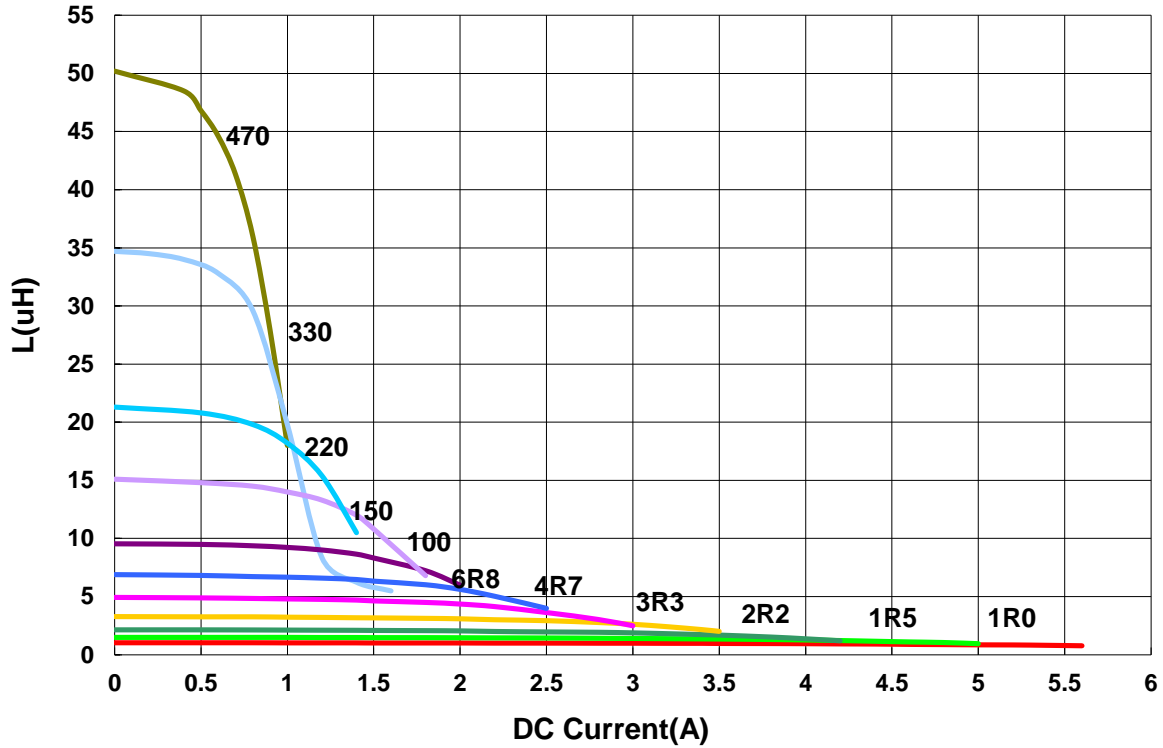
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

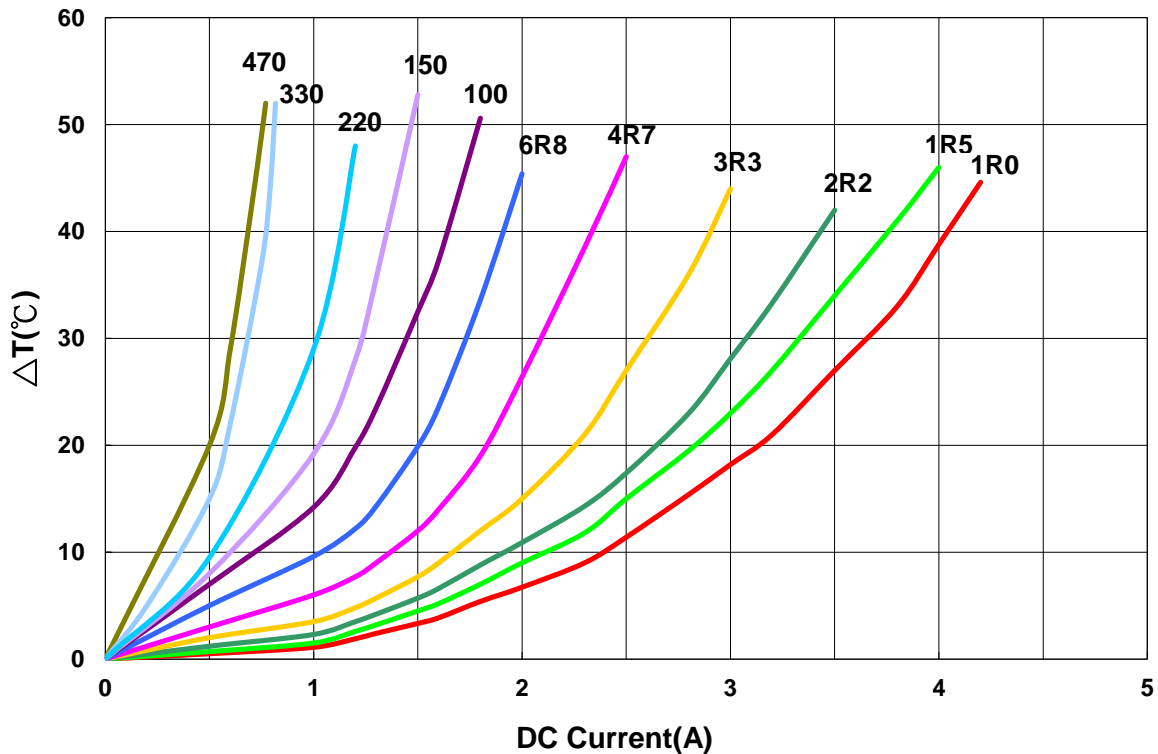
**AWVS00505020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

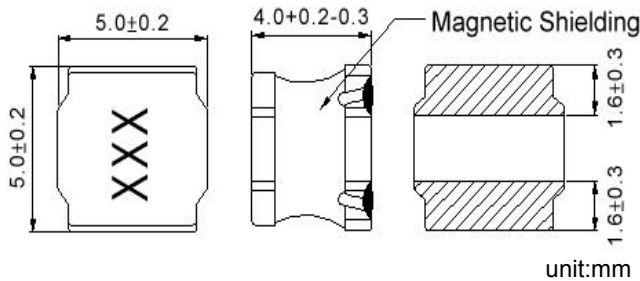


**Power Inductor AWVS Series**

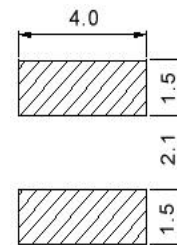
**Automotive  
AEC-Q200**

**AWVS00505040 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS005050401R0□00	1.0	100kHz,1V	14	7.5(6.70)	4.6(4.10)	20,30	1R0
AWVS005050401R2□00	1.2	100kHz,1V	15	7.4(6.60)	4.5(4.00)	20,30	1R2
AWVS005050401R5□00	1.5	100kHz,1V	16	7.1(6.30)	4.4(3.90)	20,30	1R5
AWVS005050402R2□00	2.2	100kHz,1V	21	5.7(5.10)	3.7(3.30)	20,30	2R2
AWVS005050403R0□00	3	100kHz,1V	21	4.8(4.30)	3.5(3.10)	20,30	3R0
AWVS005050403R3□00	3.3	100kHz,1V	26	4.8(4.30)	3.5(3.10)	20,30	3R3
AWVS005050403R6□00	3.6	100kHz,1V	31	4.2(3.70)	3.3(2.90)	20,30	3R6
AWVS005050404R7□00	4.7	100kHz,1V	32	4.2(3.70)	3.2(2.80)	20,30	4R7
AWVS005050406R8□00	6.8	100kHz,1V	50	3.3(2.90)	2.4(2.10)	20,30	6R8
AWVS00505040100□00	10	100kHz,1V	60	2.8(2.50)	2.2(1.90)	20,30	100
AWVS00505040150□00	15	100kHz,1V	90	2.3(2.00)	1.8(1.60)	20,30	150
AWVS00505040220□00	22	100kHz,1V	135	1.8(1.60)	1.4(1.20)	20,30	220
AWVS00505040270□00	27	100kHz,1V	180	1.6(1.40)	1.2(1.00)	20,30	270
AWVS00505040330□00	33	100kHz,1V	190	1.5(1.30)	1.1(0.99)	20,30	330
AWVS00505040470□00	47	100kHz,1V	310	1.2(1.00)	0.9(0.81)	20,30	470
AWVS00505040680□00	68	100kHz,1V	540	1.0(0.90)	0.78(0.7)	20,30	680
AWVS00505040101□00	100	100kHz,1V	800	0.7(0.60)	0.6(0.50)	20,30	101

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

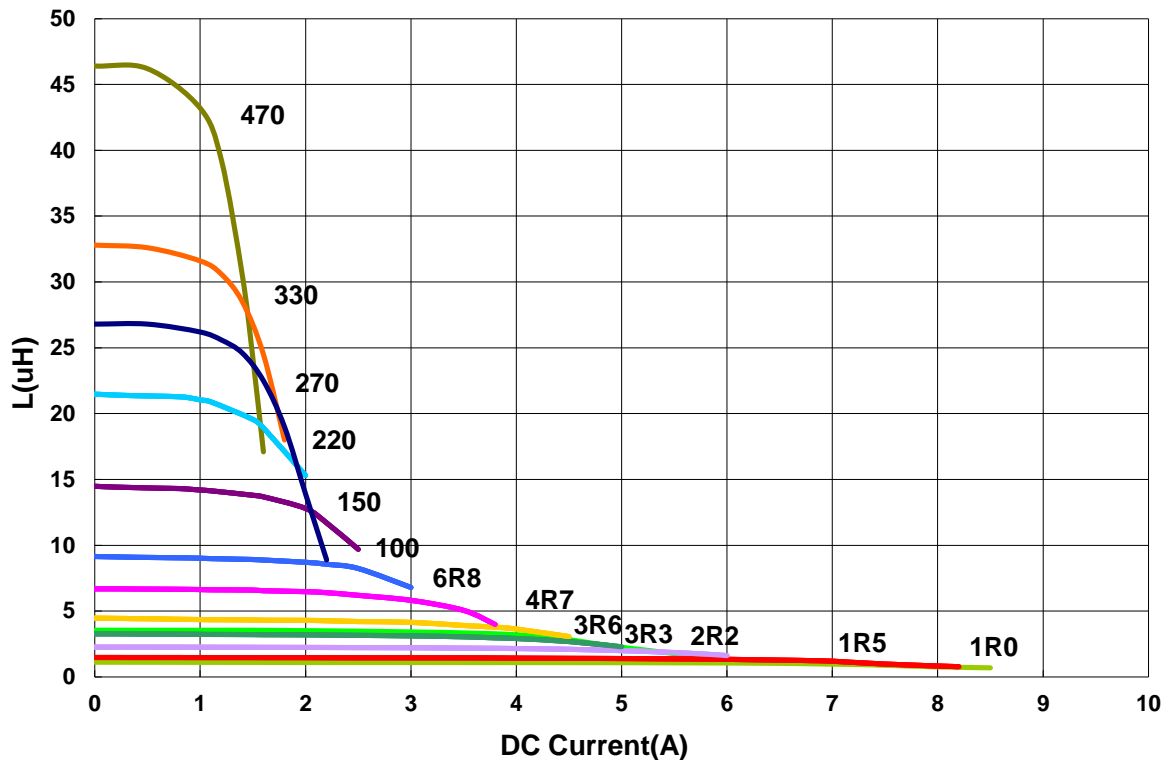
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

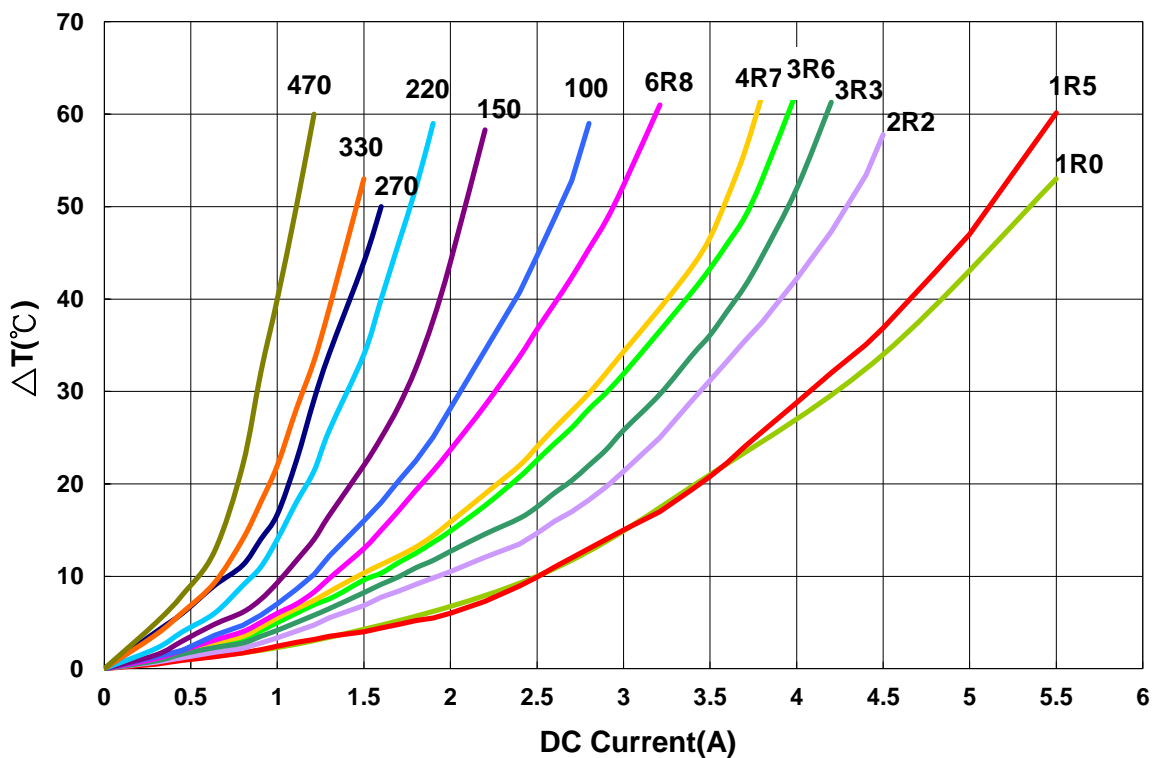
**AWVS00505040 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

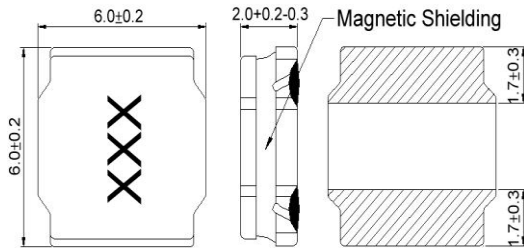


**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

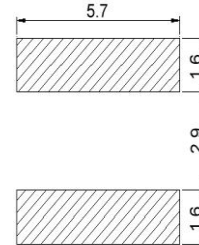
**AWVS00606020 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS00606020R50□00	0.5	100kHz,1V	13	8.0(7.20)	5.3(4.7)	30	R50
AWVS00606020R90□00	0.9	100kHz,1V	18	6.3(5.60)	4.2(3.7)	30	R90
AWVS006060201R0□00	1.0	100kHz,1V	19	6.2(5.50)	4.1(3.6)	30	1R0
AWVS006060201R5□00	1.5	100kHz,1V	26	5.0(4.50)	3.6(3.2)	20,30	1R5
AWVS006060202R2□00	2.2	100kHz,1V	34	4.2(3.70)	3.2(2.8)	20,30	2R2
AWVS006060203R3□00	3.3	100kHz,1V	40	3.2(2.80)	2.7(2.4)	20,30	3R3
AWVS006060204R7□00	4.7	100kHz,1V	58	2.5(2.20)	2.2(1.9)	20,30	4R7
AWVS006060206R8□00	6.8	100kHz,1V	85	2.2(1.90)	1.8(1.6)	20,30	6R8
AWVS00606020100□00	10	100kHz,1V	125	2.0(1.80)	1.6(1.4)	20,30	100
AWVS00606020150□00	15	100kHz,1V	190	1.3(1.10)	1.3(1.1)	20,30	150
AWVS00606020220□00	22	100kHz,1V	260	1.1(0.99)	1.1(0.99)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A  
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
Isat: Agilent HP4284A  
Irms: Agilent HP4284A

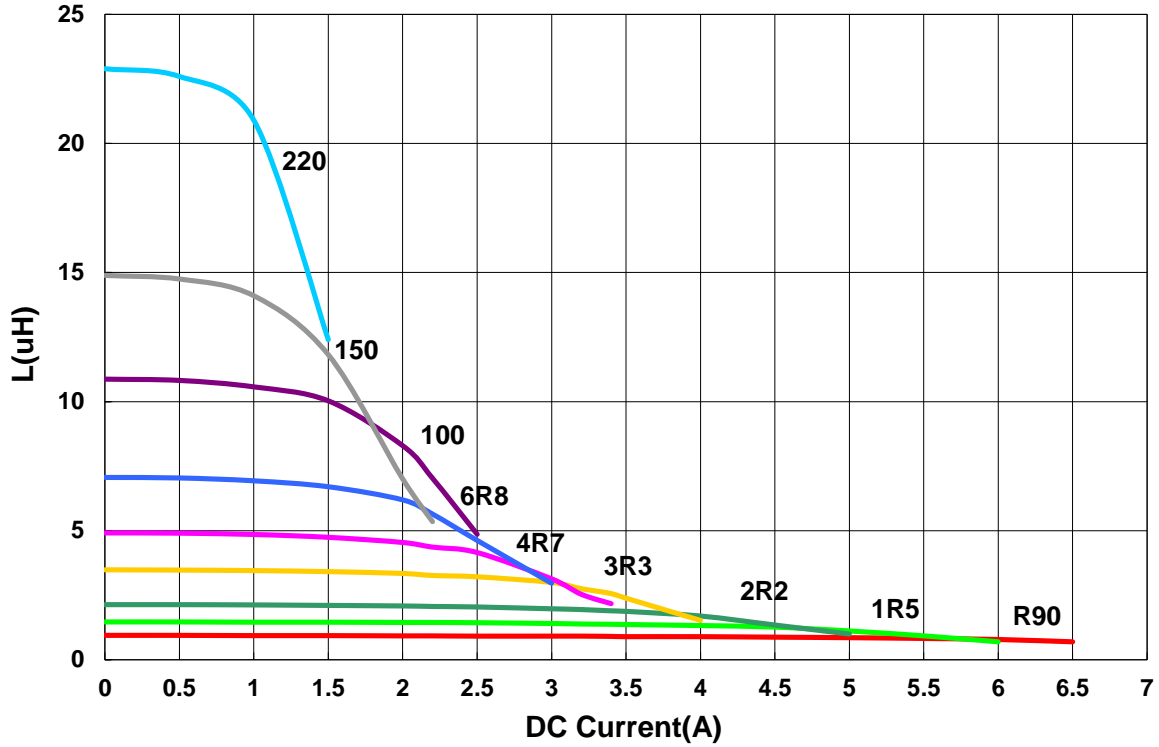
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

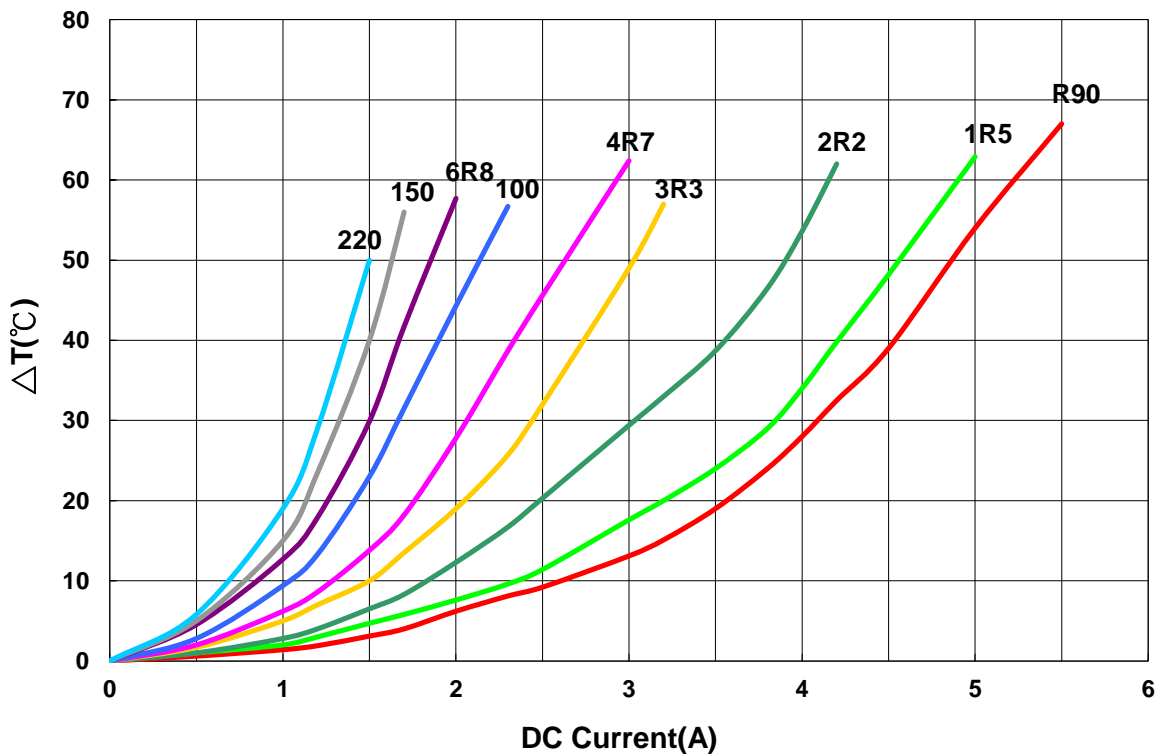
**AWVS00606020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

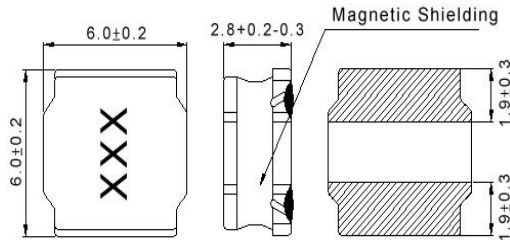


**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

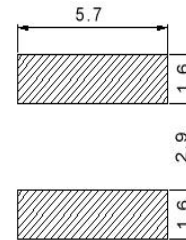
**AWVS00606028 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS006060281R0□00	1	100kHz,1V	13	7.60(6.80)	5.20(4.60)	20,30	1R0
AWVS006060281R5□00	1.5	100kHz,1V	16	6.30(5.60)	4.80(4.30)	30	1R5
AWVS006060282R2□00	2.2	100kHz,1V	20	5.40(4.80)	4.00(3.60)	20,30	2R2
AWVS006060282R7□00	2.7	100kHz,1V	26	4.90(4.40)	3.70(3.30)	20,30	2R7
AWVS006060283R3□00	3.3	100kHz,1V	28	4.30(3.80)	3.50(3.10)	20,30	3R3
AWVS006060284R7□00	4.7	100kHz,1V	38	3.70(3.30)	3.20(2.80)	20,30	4R7
AWVS006060286R0□00	6	100kHz,1V	45	3.30(2.90)	2.80(2.50)	20,30	6R0
AWVS006060286R8□00	6.8	100kHz,1V	50	3.10(2.70)	2.70(2.40)	20,30	6R8
AWVS00606028100□00	10	100kHz,1V	65	2.50(2.20)	2.30(2.00)	20,30	100
AWVS00606028150□00	15	100kHz,1V	95	2.00(1.80)	1.80(1.60)	20,30	150
AWVS00606028220□00	22	100kHz,1V	135	1.60(1.40)	1.50(1.30)	20,30	220
AWVS00606028330□00	33	100kHz,1V	220	1.30(1.10)	1.40(1.20)	20,30	330
AWVS00606028470□00	47	100kHz,1V	320	1.10(0.99)	1.00(0.90)	20,30	470
AWVS00606028680□00	68	100kHz,1V	420	0.98(0.88)	0.90(0.81)	20,30	680
AWVS00606028101□00	100	100kHz,1V	600	0.82(0.73)	0.8(0.72)	20,30	101

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A  
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
Isat: Agilent HP4284A  
I rms: Agilent HP4284A

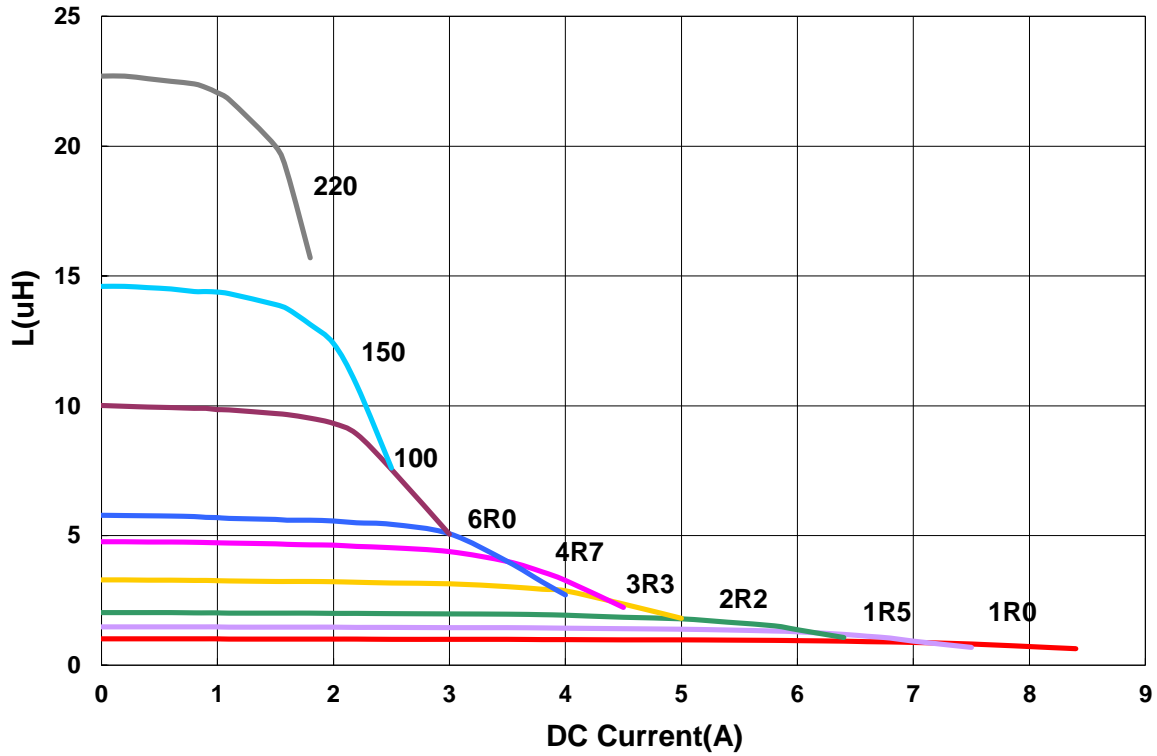
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

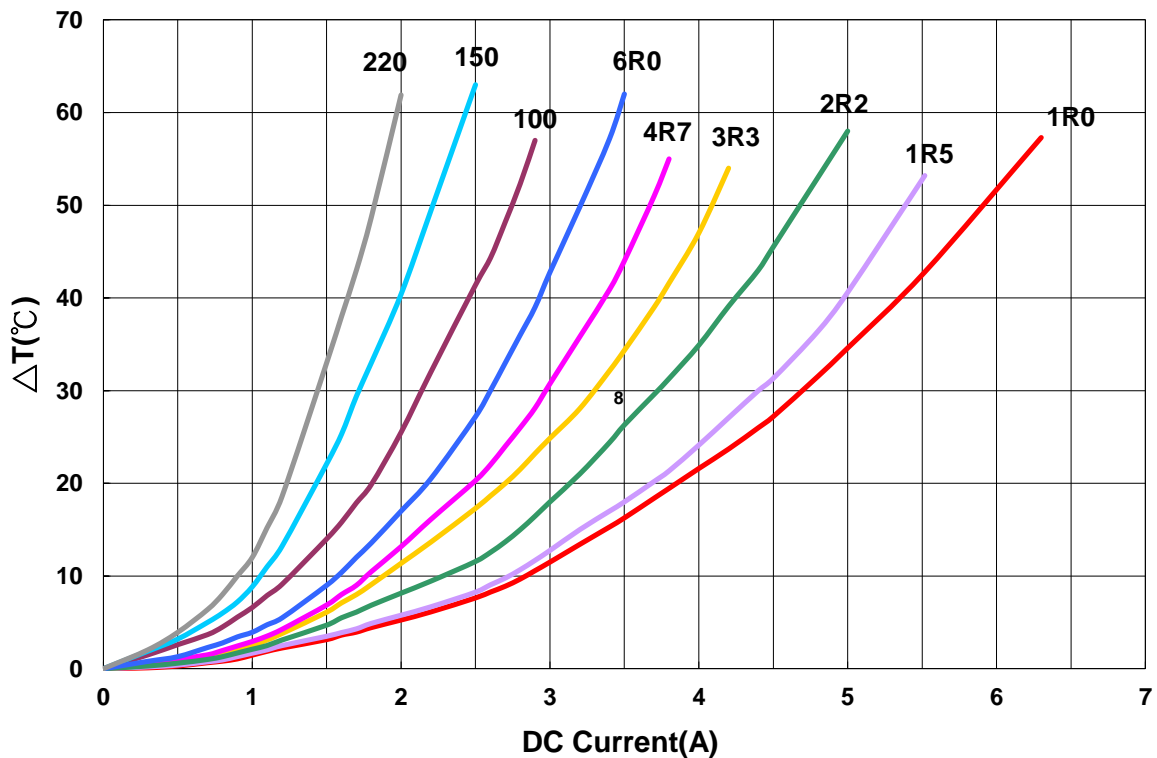
**AWVS00606028 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



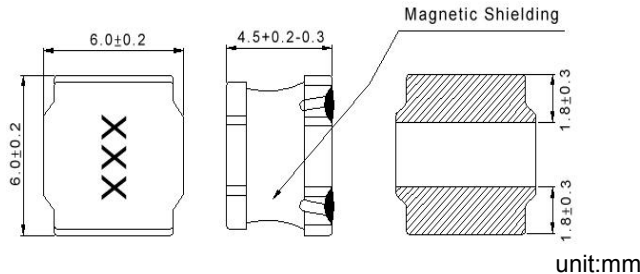


**Power Inductor AWVS Series**

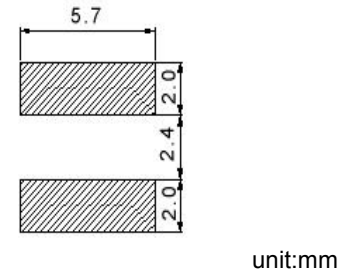
**Automotive  
AEC-Q200**

**AWVS00606045 Type**

**Dimensions**



**Recommended Land Pattern**



**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS006060451R0□00	1.0	100kHz,1V	12	12.2(10.50)	6.5(5.80)	20,30	1R0
AWVS006060451R2□00	1.2	100kHz,1V	13	10.6(9.50)	5.9(5.30)	20,30	1R2
AWVS006060451R5□00	1.5	100kHz,1V	15	10.4(9.30)	5.9(5.30)	20,30	1R5
AWVS006060451R8□00	1.8	100kHz,1V	17	9.6(8.60)	5.6(5.00)	20,30	1R8
AWVS006060452R2□00	2.2	100kHz,1V	18	8.8(7.90)	5.1(4.50)	20,30	2R2
AWVS006060452R3□00	2.3	100kHz,1V	19	8.8(7.90)	5.0(4.50)	20,30	2R3
AWVS006060453R0□00	3	100kHz,1V	22	7.8(7.00)	4.4(3.90)	20,30	3R0
AWVS006060453R3□00	3.3	100kHz,1V	24	7.5(6.70)	4.3(3.80)	20,30	3R3
AWVS006060453R6□00	3.6	100kHz,1V	24	7.5(6.70)	4.3(3.80)	20,30	3R6
AWVS006060453R9□00	3.9	100kHz,1V	26	7.0(6.30)	4.0(3.60)	20,30	3R9
AWVS006060454R5□00	4.5	100kHz,1V	31	6.7(6.00)	3.9(3.50)	20,30	4R5
AWVS006060454R7□00	4.7	100kHz,1V	31	6.7(6.00)	3.9(3.50)	20,30	4R7
AWVS006060455R1□00	5.1	100kHz,1V	33	6.0(5.40)	3.5(3.10)	20,30	5R1
AWVS006060455R6□00	5.6	100kHz,1V	40	5.5(4.90)	3.3(2.90)	20,30	5R6
AWVS006060456R3□00	6.3	100kHz,1V	40	5.5(4.90)	3.3(2.90)	20,30	6R3
AWVS006060456R8□00	6.8	100kHz,1V	43	5.3(4.70)	3.2(2.80)	20,30	6R8
AWVS006060458R2□00	8.2	100kHz,1V	53	4.6(4.10)	2.9(2.60)	20,30	6R8
AWVS00606045100□00	10	100kHz,1V	57	4.5(4.00)	2.7(2.40)	20,30	100
AWVS00606045150□00	15	100kHz,1V	80	3.4(3.00)	2.2(1.90)	20,30	150
AWVS00606045180□00	18	100kHz,1V	100	3.1(2.70)	1.8(1.60)	20,30	180
AWVS00606045220□00	22	100kHz,1V	125	3.0(2.70)	1.9(1.70)	20,30	220
AWVS00606045270□00	27	100kHz,1V	160	2.5(2.20)	1.3(1.10)	20,30	270
AWVS00606045330□00	33	100kHz,1V	165	2.3(2.00)	1.4(1.20)	20,30	330
AWVS00606045470□00	47	100kHz,1V	245	1.9(1.70)	1.2(1.00)	20,30	470
AWVS00606045560□00	56	100kHz,1V	310	1.7(1.50)	1.1(0.99)	20,30	560
AWVS00606045680□00	68	100kHz,1V	330	1.6(1.40)	1.0(0.90)	20,30	680
AWVS00606045101□00	100	100kHz,1V	500	1.3(1.10)	0.8(0.72)	20,30	101
AWVS00606045221□00	220	100kHz,1V	1300	0.82(0.73)	0.38(0.34)	20,30	221
AWVS00606045331□00	330	100kHz,1V	1800	0.7(0.63)	0.35(0.31)	20,30	331
AWVS00606045102□00	1000	100kHz,1V	6000	0.4(0.36)	0.22(0.19)	20,30	102

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A  
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
Isat: Agilent HP4284A  
I rms: Agilent HP4284A

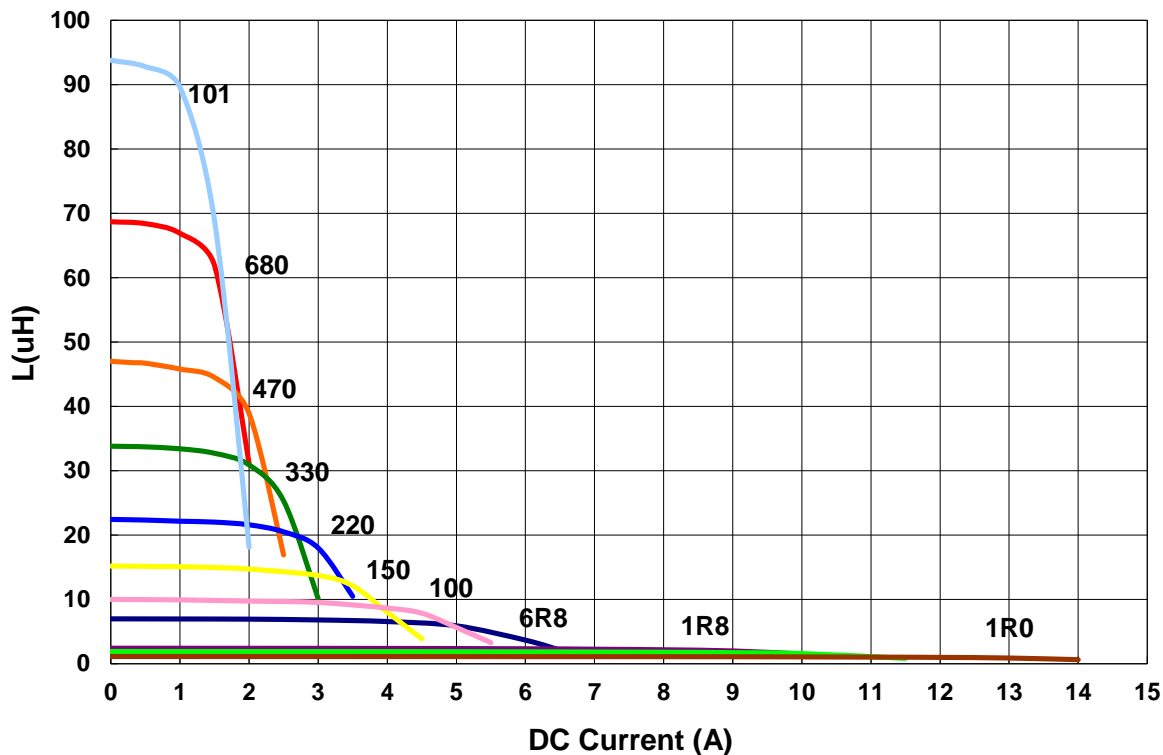
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

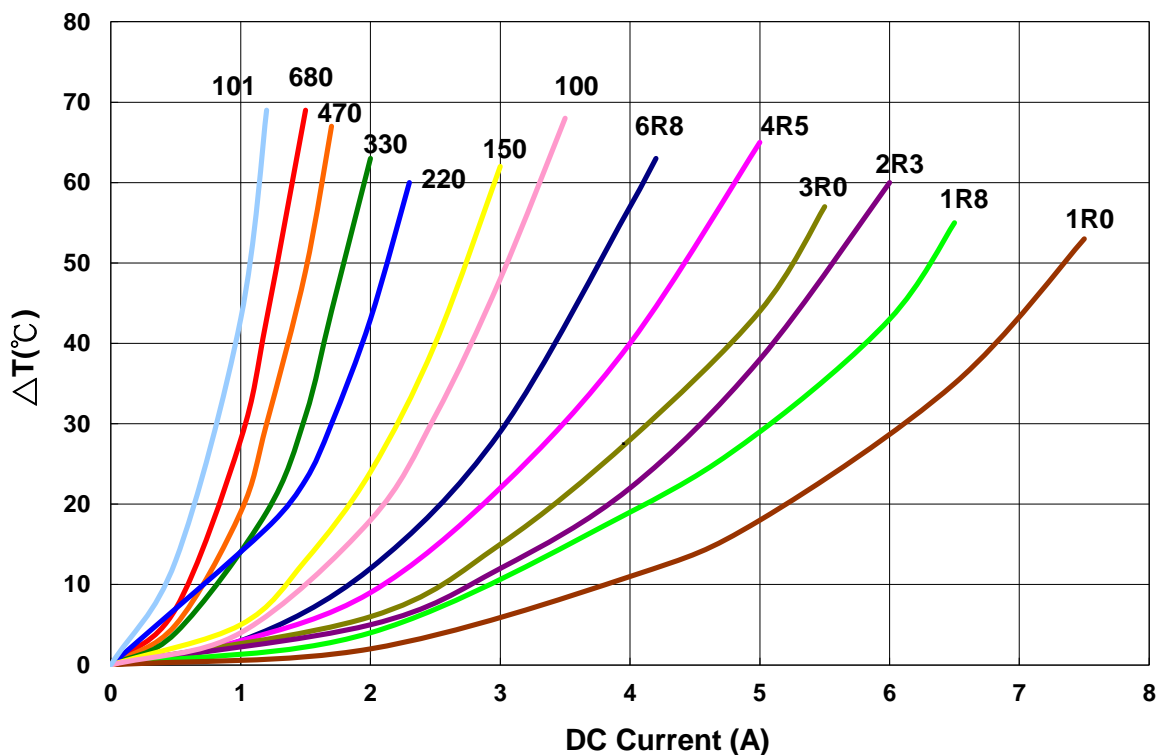
**AWVS00606045 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

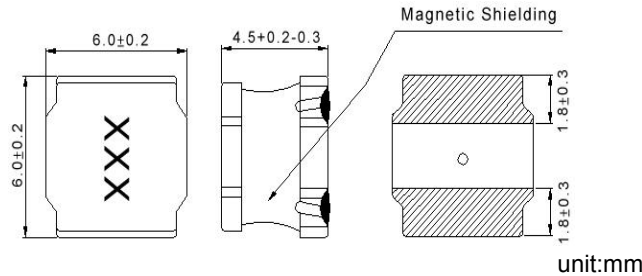


**Power Inductor AWVS Series**

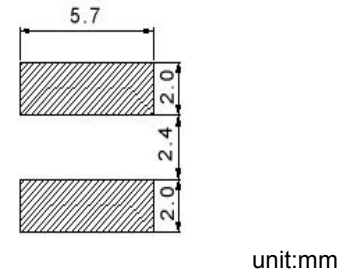
**Automotive  
AEC-Q200**

**AWVS00606045 - L1 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max.	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS00606045R50□L1	0.5	100kHz,1V	9	11(9.90)	8.0(7.20)	30	R50
AWVS006060452R2□L1	2.2	100kHz,1V	17	6.8(6.10)	5.5(4.90)	20,30	2R2
AWVS006060453R3□L1	3.3	100kHz,1V	24	5.5(4.90)	4.7(4.20)	20,30	3R3
AWVS006060454R7□L1	4.7	100kHz,1V	30	4.6(4.10)	4.0(3.60)	20,30	4R7
AWVS006060456R8□L1	6.8	100kHz,1V	40	4.0(3.60)	3.5(3.10)	20,30	6R8
AWVS006060451L1□L1	10	100kHz,1V	50	3.2(2.80)	3.2(2.80)	20,30	100
AWVS00606045150□L1	15	100kHz,1V	80	2.6(2.30)	2.5(2.20)	20,30	150
AWVS00606045220□L1	22	100kHz,1V	120	2.1(1.80)	2.0(1.80)	20,30	220
AWVS00606045330□L1	33	100kHz,1V	170	1.7(1.50)	1.6(1.40)	20,30	330
AWVS00606045101□L1	100	100kHz,1V	595	0.95(0.85)	0.92(0.82)	20,30	101

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

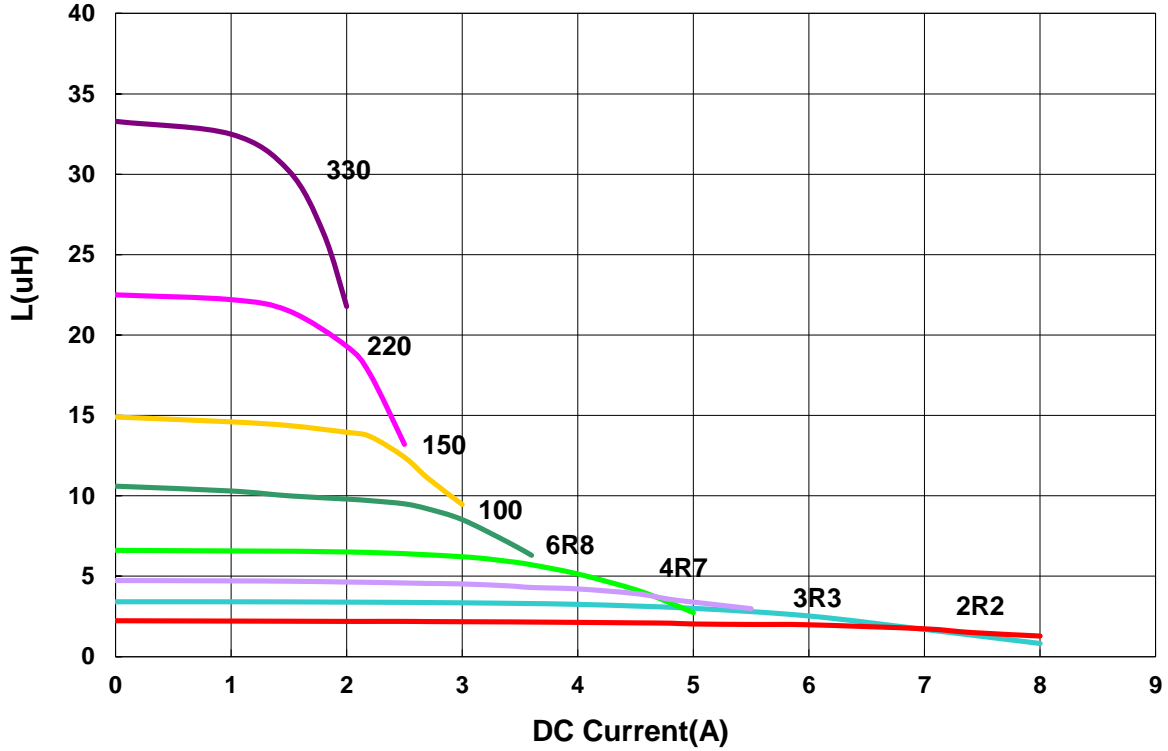
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

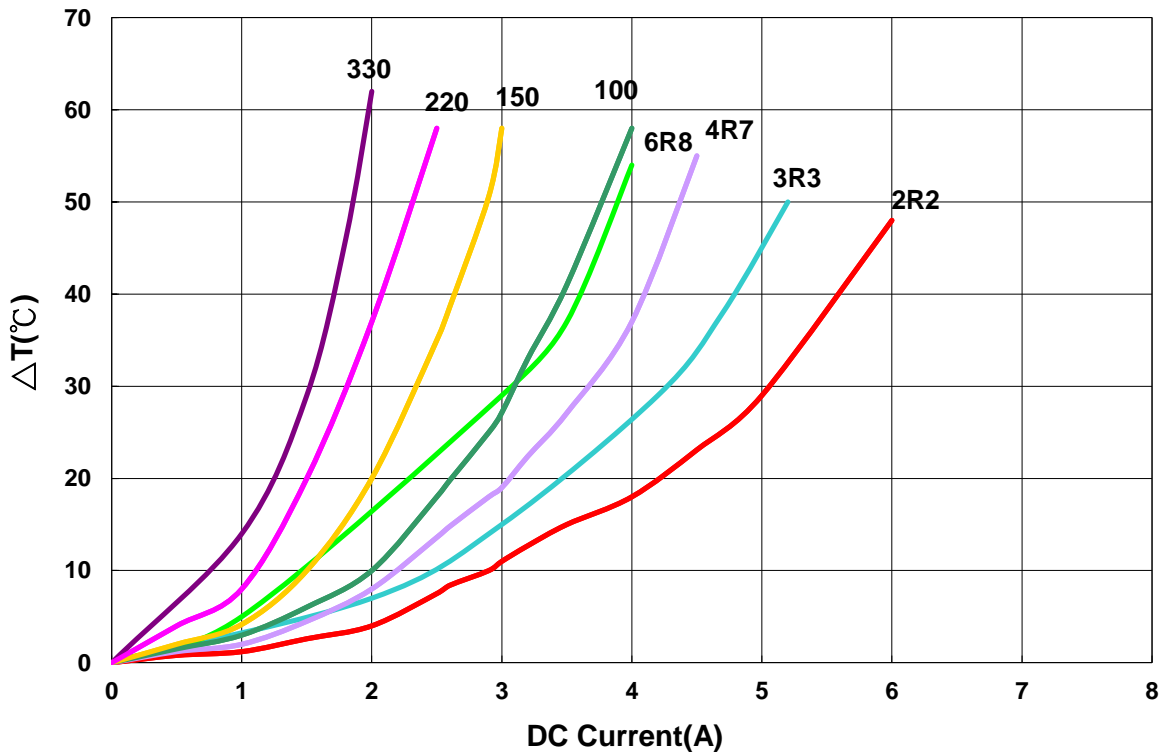
**AWVS00606045 - L1 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

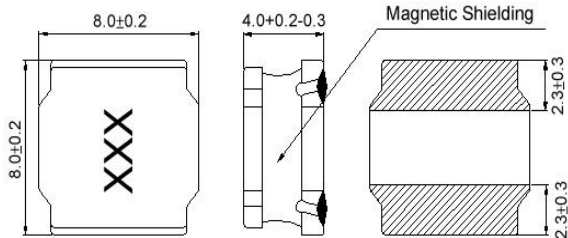


**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

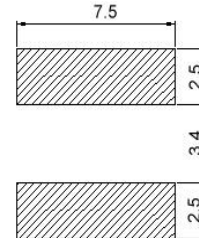
**LVS808040 - AU Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS00808040R90□00	0.9	100kHz,1V	7	13.8(12.00)	8.05(7.10)	30	R90
AWVS008080401R0□00	1.0	100kHz,1V	8	13.0(11.50)	7.95(7.00)	30	1R0
AWVS008080401R4□00	1.4	100kHz,1V	9	10.8(9.50)	7.80(6.90)	30	1R4
AWVS008080401R5□00	1.5	100kHz,1V	10	10.0(9.00)	7.70(6.80)	30	1R5
AWVS008080402R0□00	2	100kHz,1V	11	9.60(8.50)	7.40(6.50)	20,30	2R0
AWVS008080402R2□00	2.2	100kHz,1V	12	9.20(8.10)	7.20(6.30)	20,30	2R2
AWVS008080402R5□00	2.5	100kHz,1V	13	8.20(7.20)	6.30(5.50)	20,30	2R5
AWVS008080403R3□00	3.3	100kHz,1V	15	7.50(6.60)	6.00(5.30)	20,30	3R3
AWVS008080403R9□00	3.9	100kHz,1V	18	6.10(5.40)	5.50(4.90)	20,30	3R9
AWVS008080404R7□00	4.7	100kHz,1V	18	6.00(5.30)	5.50(4.80)	20,30	4R7
AWVS008080405R6□00	5.6	100kHz,1V	23	5.70(5.00)	5.20(4.50)	20,30	5R6
AWVS008080406R8□00	6.8	100kHz,1V	25	5.40(4.70)	5.10(4.40)	20,30	6R8
AWVS00808040100□00	10	100kHz,1V	38	4.30(3.70)	3.80(3.30)	20,30	100
AWVS00808040120□00	12	100kHz,1V	45	3.80(3.30)	3.50(3.00)	20,30	120
AWVS00808040150□00	15	100kHz,1V	50	3.60(3.10)	3.20(2.70)	20,30	150
AWVS00808040180□00	18	100kHz,1V	68	3.10(2.60)	2.70(2.30)	20,30	180
AWVS00808040220□00	22	100kHz,1V	80	2.80(2.40)	2.60(2.20)	20,30	220
AWVS00808040330□00	33	100kHz,1V	110	2.30(2.00)	2.00(1.70)	20,30	330
AWVS00808040470□00	47	100kHz,1V	160	1.90(1.60)	1.75(1.40)	20,30	470
AWVS00808040680□00	68	100kHz,1V	240	1.70(1.40)	1.45(1.20)	20,30	680
AWVS00808040101□00	100	100kHz,1V	340	1.40(1.10)	1.10(0.95)	20,30	101
AWVS00808040121□00	120	100kHz,1V	425	1.10(0.95)	1.00(0.80)	20,30	121
AWVS00808040151□00	150	100kHz,1V	480	1.00(0.88)	0.90(0.75)	20,30	151
AWVS00808040181□00	180	100kHz,1V	650	0.98(0.88)	0.70(0.63)	20,30	181
AWVS00808040221□00	220	100kHz,1V	670	0.94(0.80)	0.60(0.50)	20,30	221
AWVS00808040271□00	270	100kHz,1V	900	0.83(0.73)	0.55(0.45)	20,30	271
AWVS00808040821□00	820	100kHz,1V	2800	0.40(0.35)	0.38(0.30)	20,30	821

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

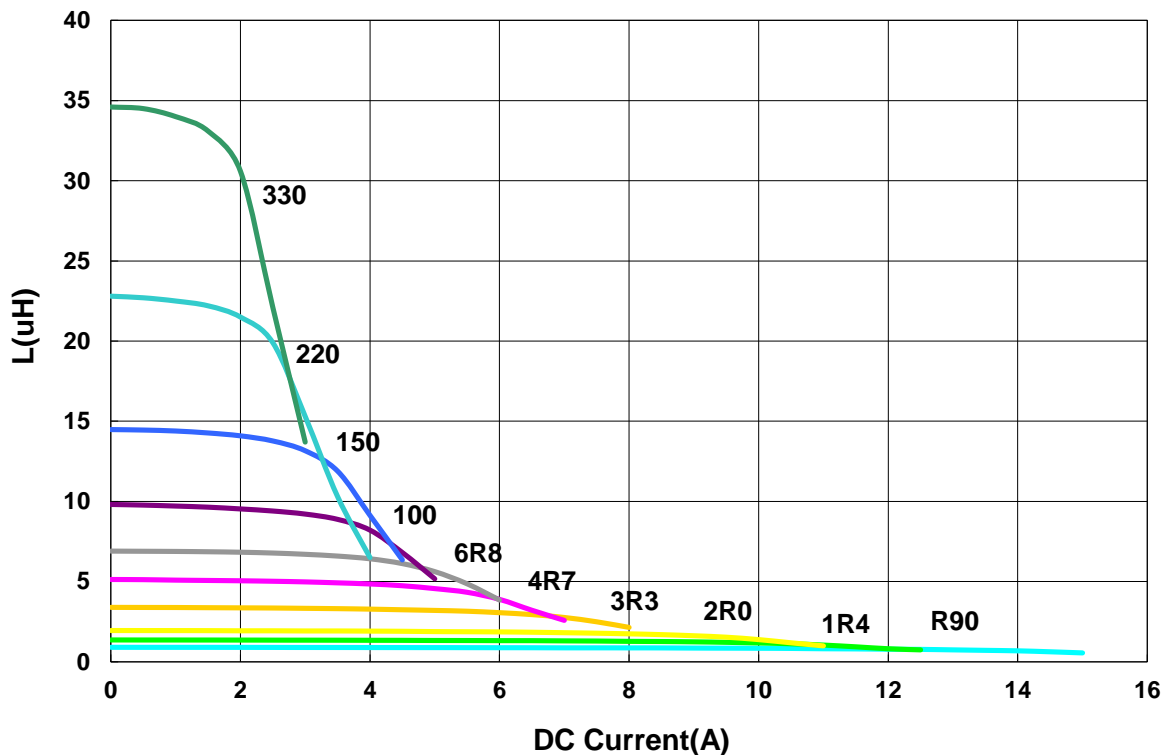
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

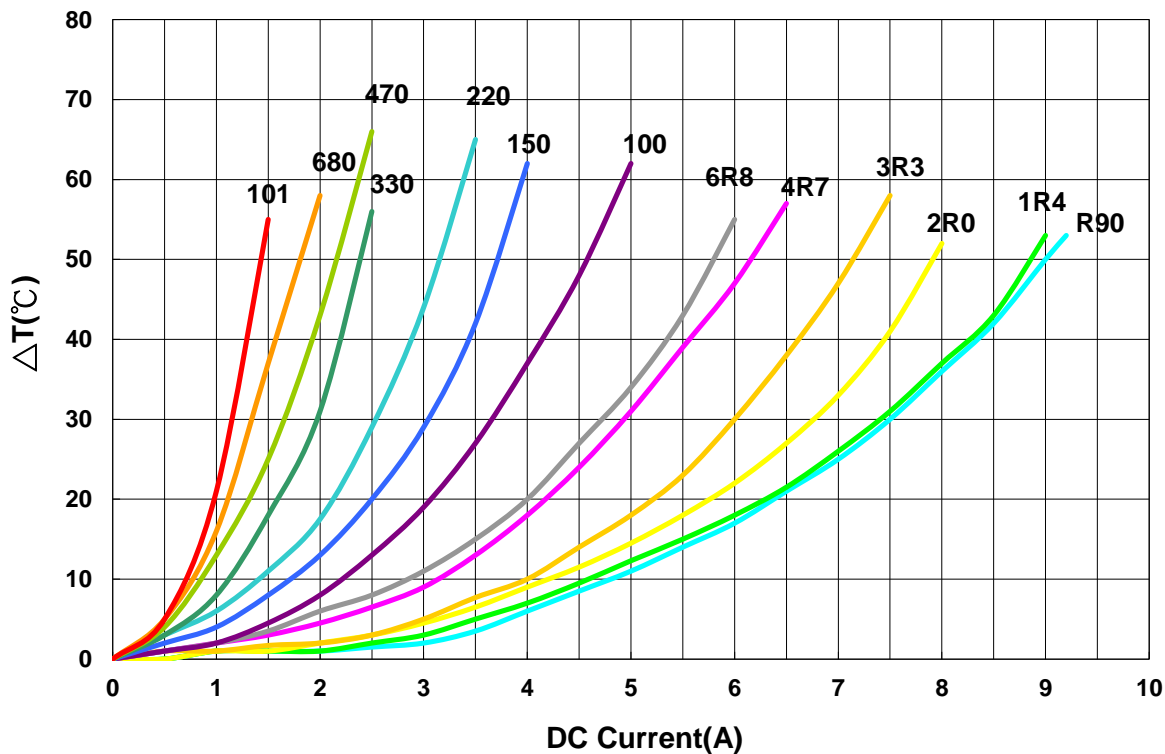
**LVS808040 - AU Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

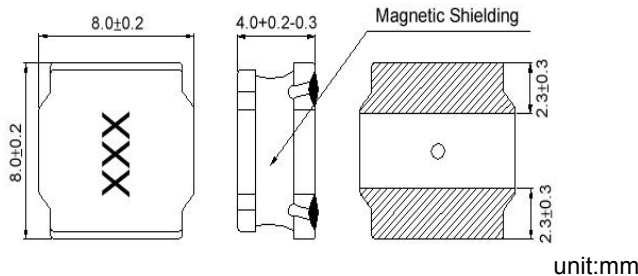


**Power Inductor AWVS Series**

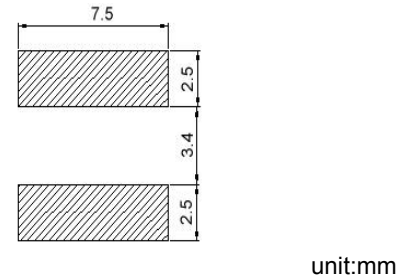
**Automotive  
AEC-Q200**

**AWVS00808040 - L1 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max.	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS008080401R0□L1	1.0	100kHz,1V	10	9.5(8.40)	8.5(7.50)	30	1R0
AWVS008080402R2□L1	2.2	100kHz,1V	12	7.2(6.30)	7.3(6.40)	20,30	2R2
AWVS008080403R3□L1	3.3	100kHz,1V	19	5.6(4.99)	6.0(5.30)	20,30	3R3
AWVS008080404R7□L1	4.7	100kHz,1V	22	4.4(3.80)	5.0(4.40)	20,30	4R7
AWVS008080408R2□L1	8.2	100kHz,1V	37	3.6(3.10)	3.8(3.30)	20,30	8R2
AWVS008080401L1□L1	10	100kHz,1V	42	3.1(2.60)	3.5(3.00)	20,30	100
AWVS00808040150□L1	15	100kHz,1V	58	2.5(2.10)	3.0(2.60)	20,30	150
AWVS00808040220□L1	22	100kHz,1V	85	2.0(1.70)	2.5(2.10)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A



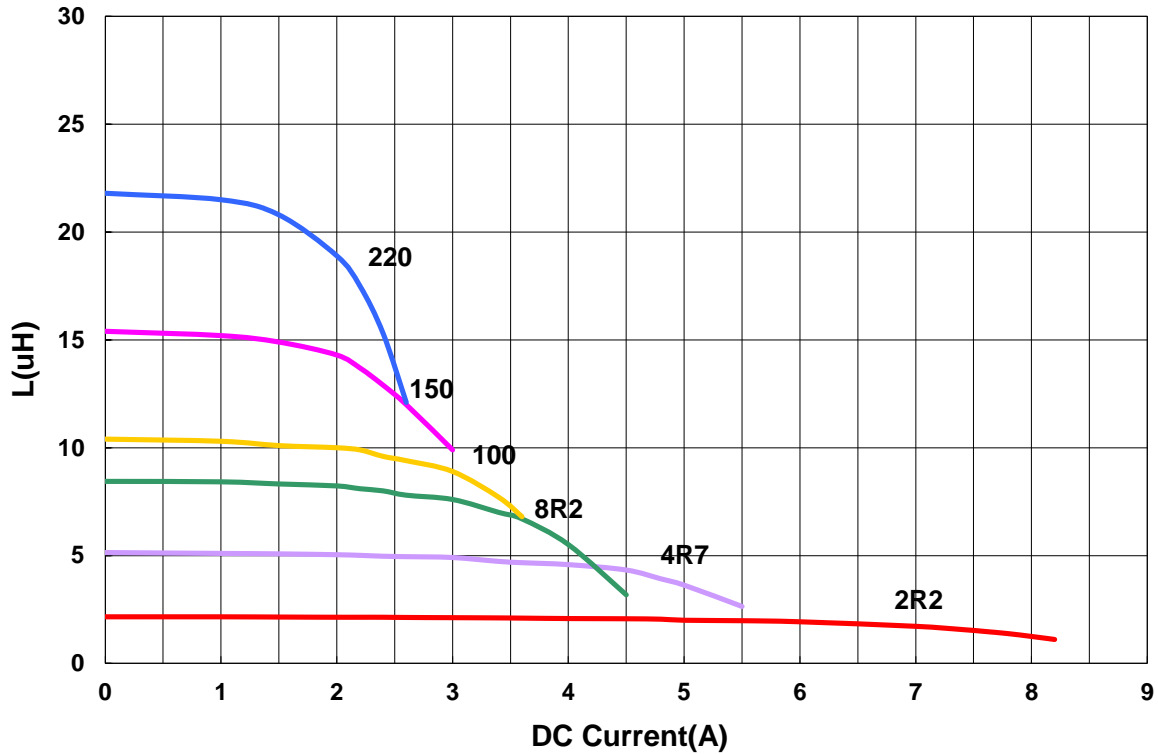
**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

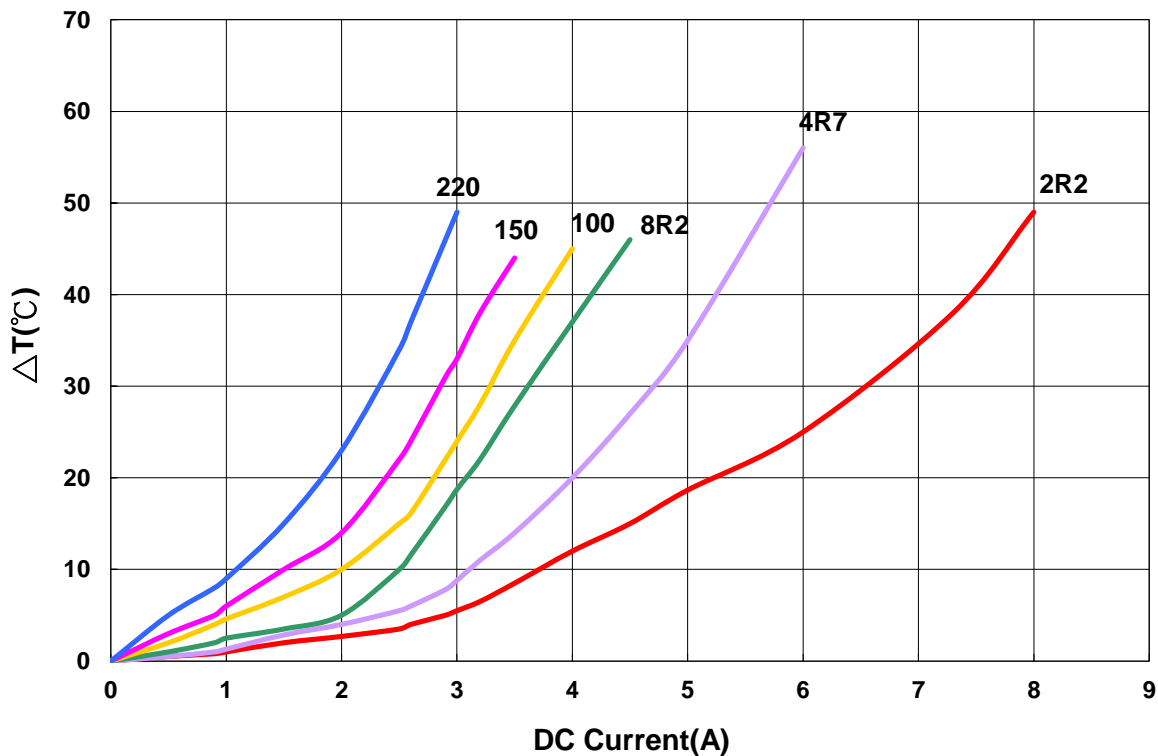
**AWVS00808040 - L1 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



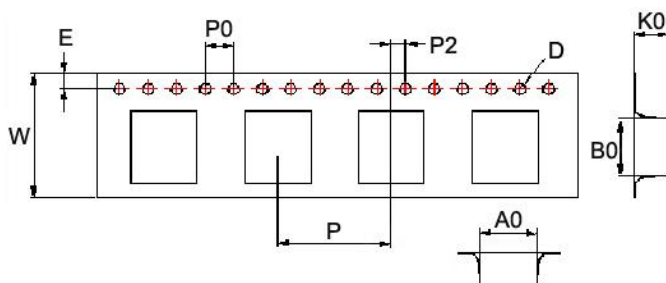


**Power Inductor AWVS Series**

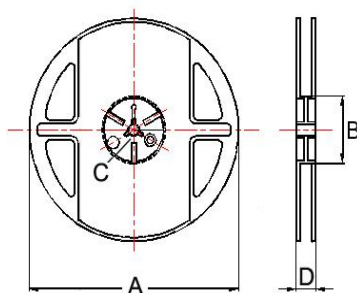
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions				Quantity
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	PCS / Reel
AWVS00404012	4.25	4.25	1.3	1.55	1.75	5.5	12	8.1	4	2	180	60	13	13.2	1000
AWVS00404018	4.25	4.25	2.10	1.55	1.75	5.5	12	8.1	4	2	178	60	13	13.2	800
AWVS00505020	5.25	5.25	2.2	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	2000
AWVS00505040	5.2	5.2	4.2	1.55	1.75	5.5	12	8.1	4	2	330	100	13	13.4	1500
AWVS00606020	6.25	6.25	2.2	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	2000
AWVS00606028	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1500
AWVS00606045	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000
AWVS00808040	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000

**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



**Part Numbering**

A	WVF	00	404018	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			201612 2.0x1.6x1.2	R47 0.47	M ±20%	
			252010 2.5x2.0x1.02	1R0 1.0	T ±30%	
			252012 2.5x2.0x1.2	101 100		
			303010 3.0x3.0x1.02			
			303012 3.0x3.0x1.2			
			303015 3.0x3.0x1.5			
			404012 4.0x4.0x1.02			
			404015 4.0x4.0x1.5			
			404018 4.0x4.0x1.9			
			404026 4.0x4.0x2.6			
			505020 5.0x5.0x2.0			
			606020 6.0x6.0x2.0			
			606028 6.0x6.0x2.8			
			808040 8.0x8.0x4.0			

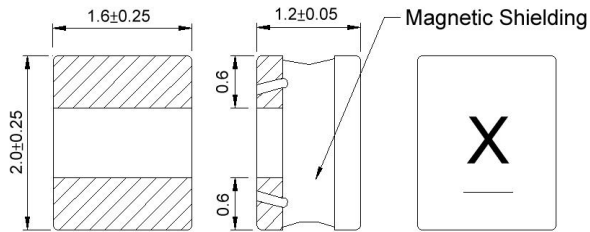
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

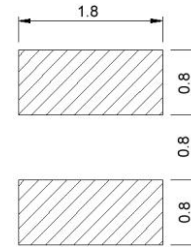
**AWVF00201612 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF00201612R47□00	0.47	1MHz,200mV	0.051	2.70(2.40)	2.30(2.00)	20,30	A
AWVF00201612R68□00	0.68	1MHz,200mV	0.074	2.20(1.90)	2.00(1.80)	20,30	L
AWVF002016121R5□00	1.5	1MHz,200mV	0.130	1.60(1.40)	1.40(1.30)	20,30	D
AWVF002016126R8□00	6.8	1MHz,200mV	0.465	0.82(0.73)	0.78(0.70)	20,30	H

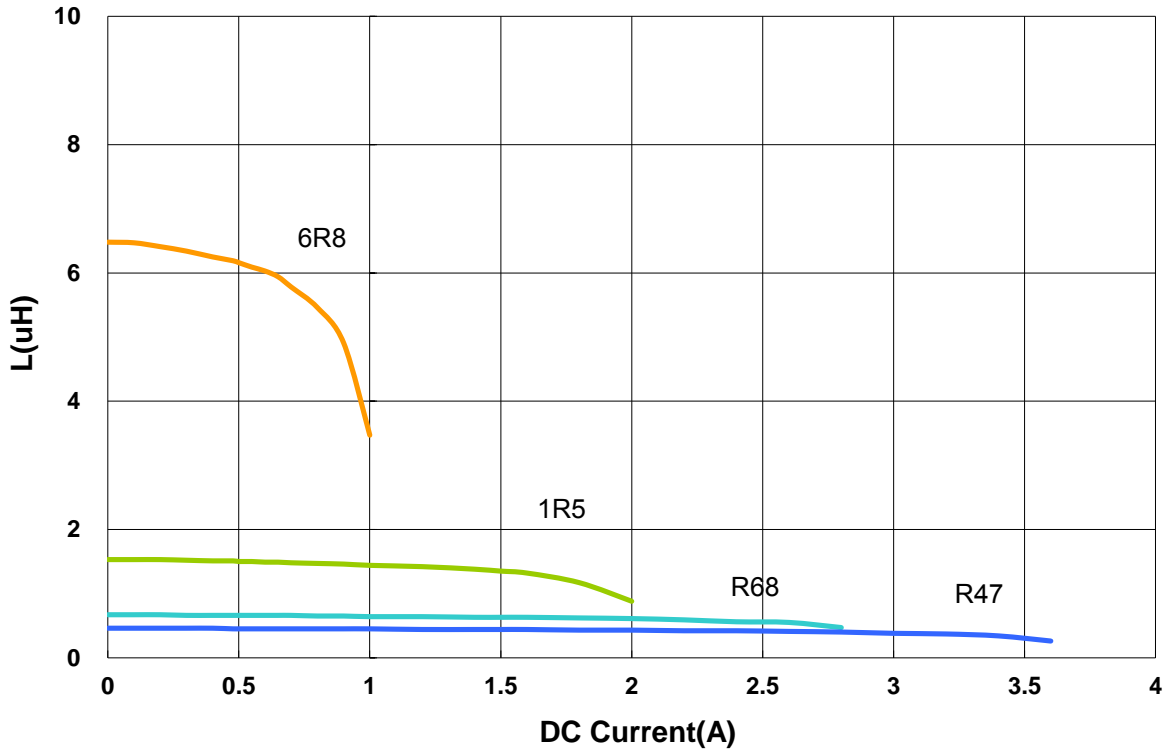
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

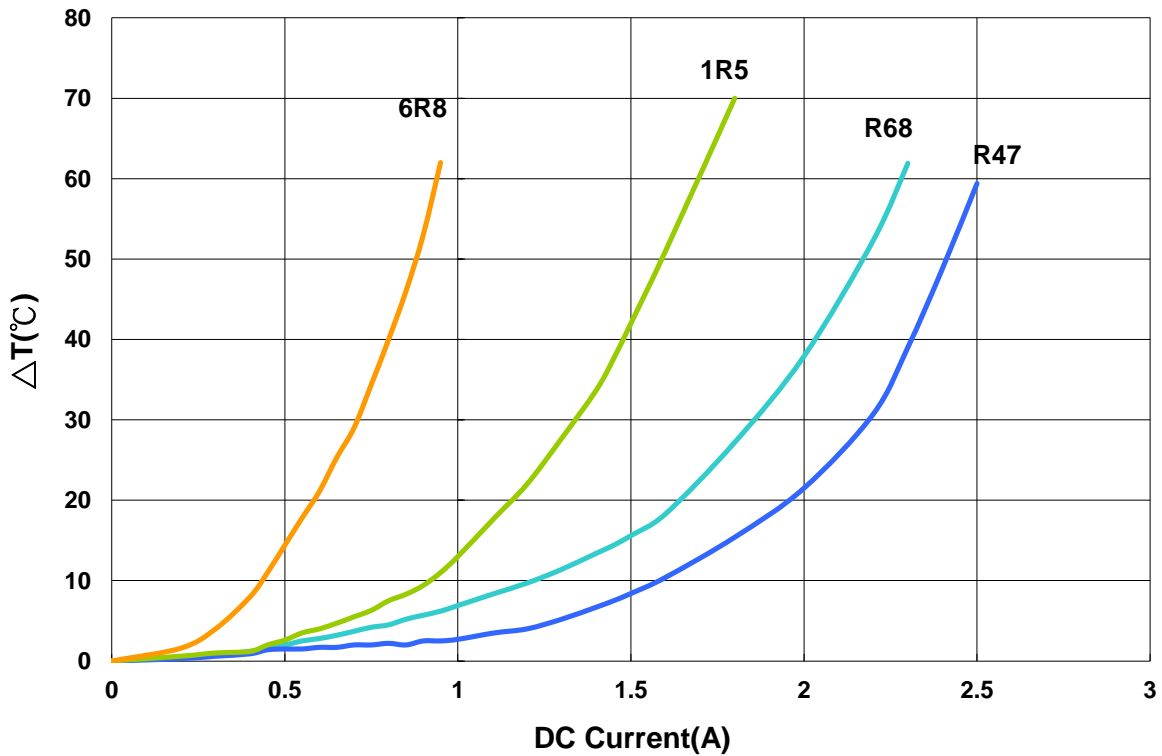
AWVF00201612 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

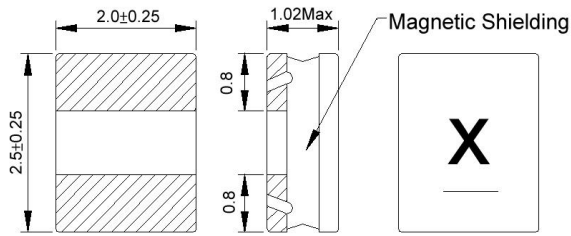


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

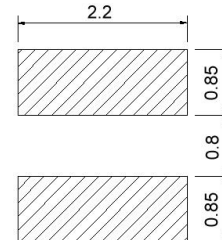
**AWVF00252010 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF00252010R47□00	0.47	1MHz,200mV	0.045	2.80(2.50)	2.30(2.00)	20,30	A
AWVF002520101R0□00	1.0	1MHz,200mV	0.066	1.90(1.70)	2.00(1.80)	20,30	B
AWVF002520101R5□00	1.5	1MHz,200mV	0.095	1.70(1.50)	1.80(1.60)	20,30	C
AWVF002520104R7□00	4.7	1MHz,200mV	0.285	0.92(0.82)	0.95(0.85)	20,30	F
AWVF00252010100□00	10	1MHz,200mV	0.535	0.60(0.54)	0.70(0.63)	20,30	H
AWVF00252010150□00	15	1MHz,200mV	0.810	0.50(0.45)	0.55(0.49)	20,30	I
AWVF00252010220□00	22	1MHz,200mV	1.200	0.40(0.36)	0.44(0.39)	20,30	J

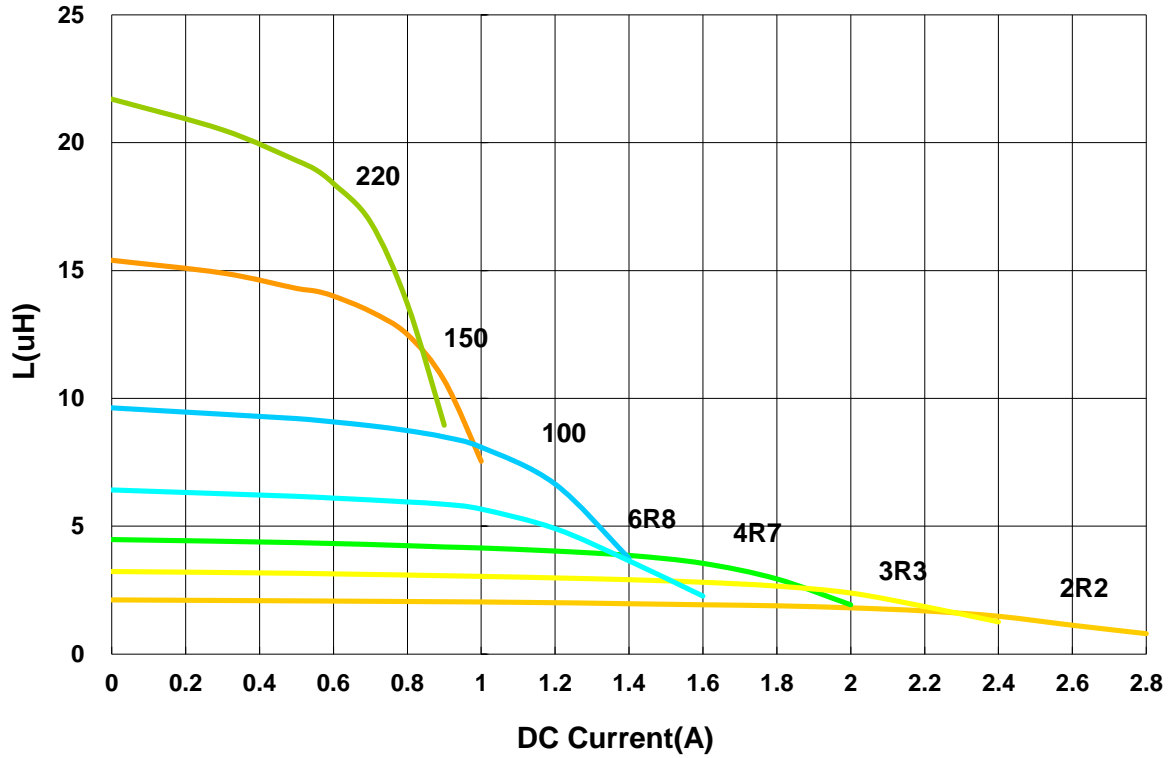
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

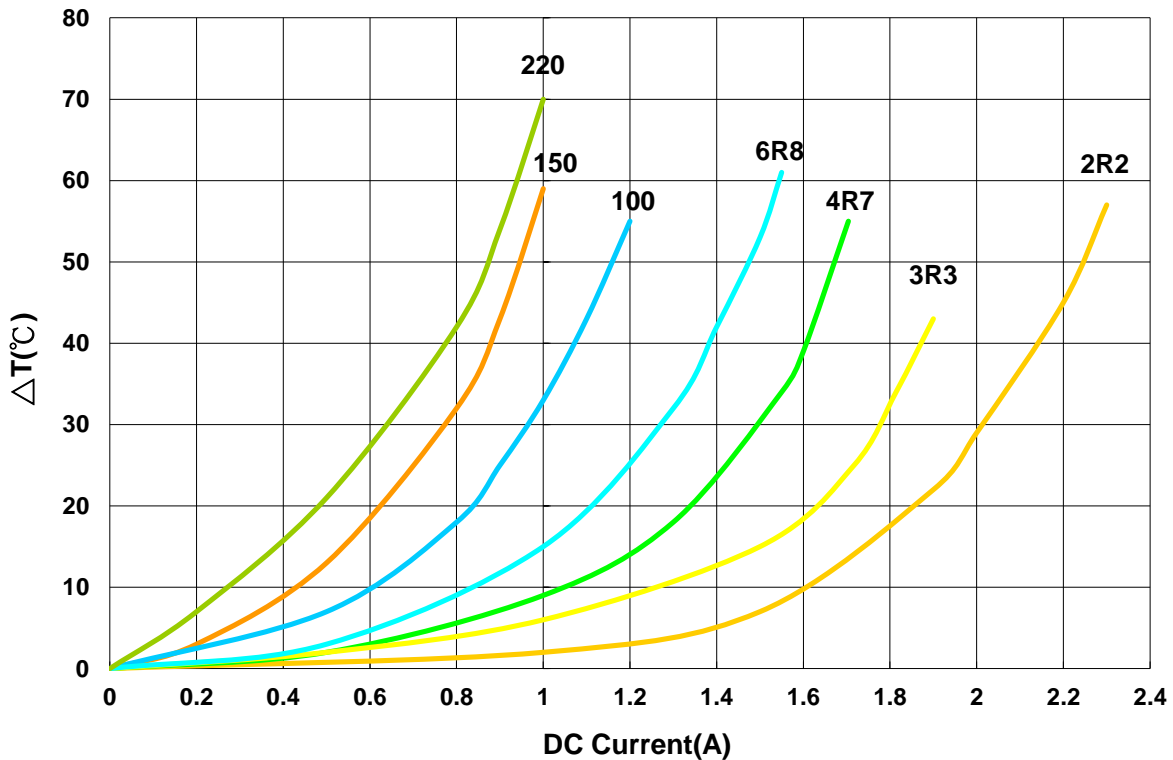
AWVF00252010 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

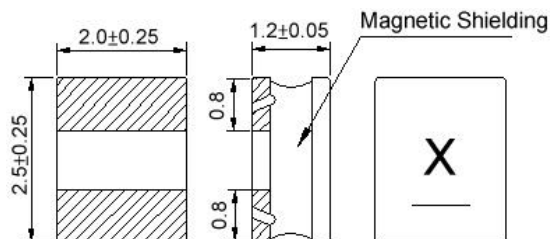


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

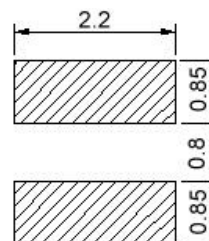
**AWVF00252012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF00252012R50□00	0.5	1MHz,200mV	0.028	3.50(3.10)	3.00(2.70)	20,30	B
AWVF002520121R0□00	1.0	1MHz,200mV	0.050	2.50(2.20)	2.40(2.10)	20,30	C
AWVF002520121R2□00	1.2	1MHz,200mV	0.053	2.10(1.80)	2.35(2.10)	20,30	D
AWVF002520121R5□00	1.5	1MHz,200mV	0.068	1.95(1.70)	2.30(2.00)	20,30	E
AWVF002520122R2□00	2.2	1MHz,200mV	0.080	1.80(1.60)	1.80(1.60)	20,30	F
AWVF002520123R3□00	3.3	1MHz,200mV	0.130	1.45(1.20)	1.50(1.30)	20,30	G
AWVF002520124R7□00	4.7	1MHz,200mV	0.190	1.10(0.98)	1.10(0.98)	20,30	H
AWVF002520125R6□00	5.6	1MHz,200mV	0.210	1.05(0.93)	1.00(0.89)	20,30	I
AWVF002520126R8□00	6.8	1MHz,200mV	0.300	0.95(0.84)	0.80(0.71)	20,30	J
AWVF00252012100□00	10	1MHz,200mV	0.385	0.88(0.78)	0.70(0.62)	20,30	K
AWVF00252012150□00	15	1MHz,200mV	0.570	0.68(0.60)	0.62(0.54)	20,30	L
AWVF00252012220□00	22	1MHz,200mV	0.810	0.55(0.48)	0.53(0.46)	20,30	M

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient.
4. Measure Equipment:  
 L: Agilent/HP4287A+Agilent/HP16197A  
 RDC: Digital Milliohm Meter Chroma 16502, or equivalent  
 Isat: Agilent/HP4284A  
 I rms: Agilent/HP4284A

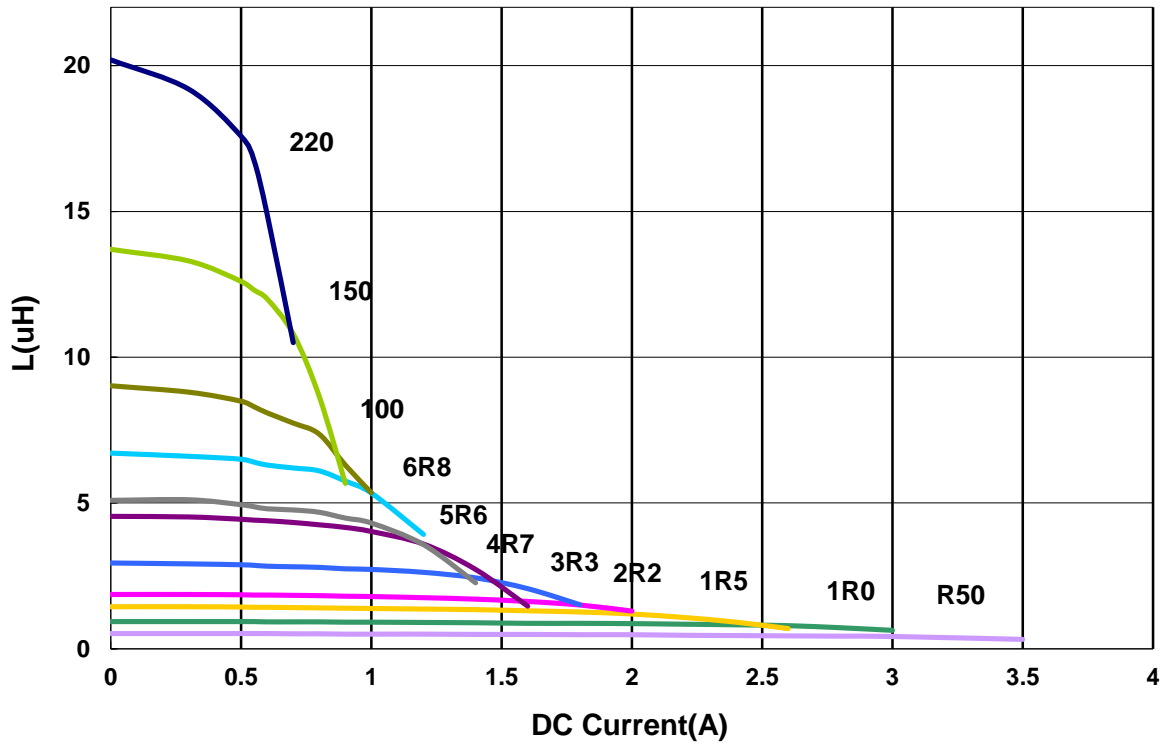
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

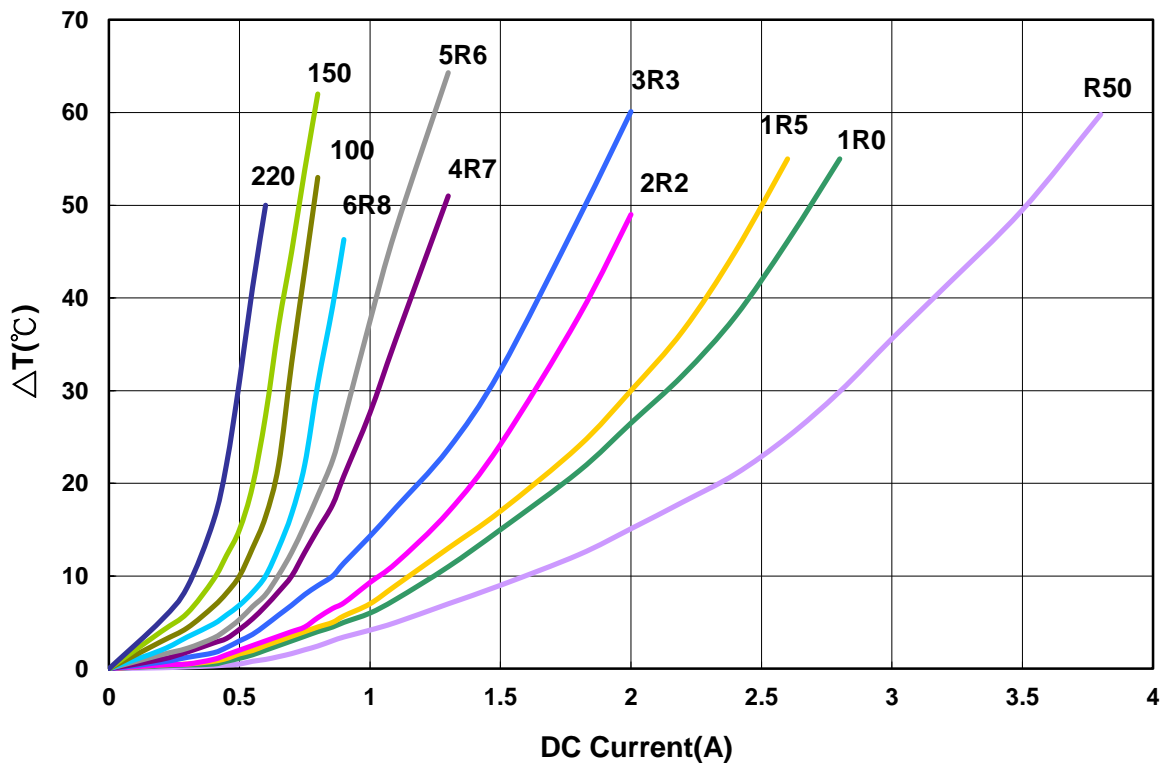
**AWVF00252012 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



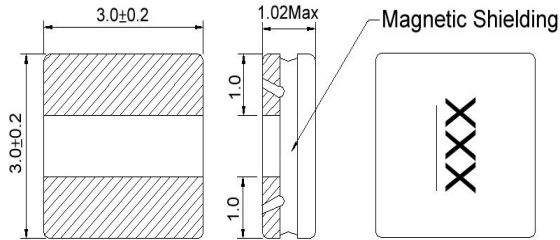


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

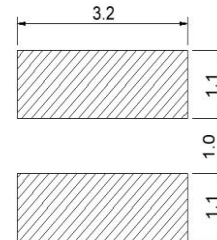
**AWVF00303010 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF003030101R5□00	1.5	1MHz,200mV	0.085	1.80(1.60)	1.70(1.50)	20,30	1R5
AWVF003030102R2□00	2.2	1MHz,200mV	0.100	1.50(1.30)	1.40(1.20)	20,30	2R2
AWVF003030104R7□00	4.7	1MHz,200mV	0.205	1.00(0.90)	0.95(0.85)	20,30	4R7
AWVF003030106R8□00	6.8	1MHz,200mV	0.310	0.87(0.78)	0.85(0.76)	20,30	6R8
AWVF00303010100□00	10	1MHz,200mV	0.430	0.64(0.57)	0.63(0.56)	20,30	100
AWVF00303010150□00	15	1MHz,200mV	0.625	0.56(0.50)	0.55(0.49)	20,30	150
AWVF00303010220□00	22	1MHz,200mV	0.870	0.47(0.42)	0.46(0.41)	20,30	220
AWVF00303010470□00	47	1MHz,200mV	0.870	0.29(0.26)	0.28(0.25)	20,30	470

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

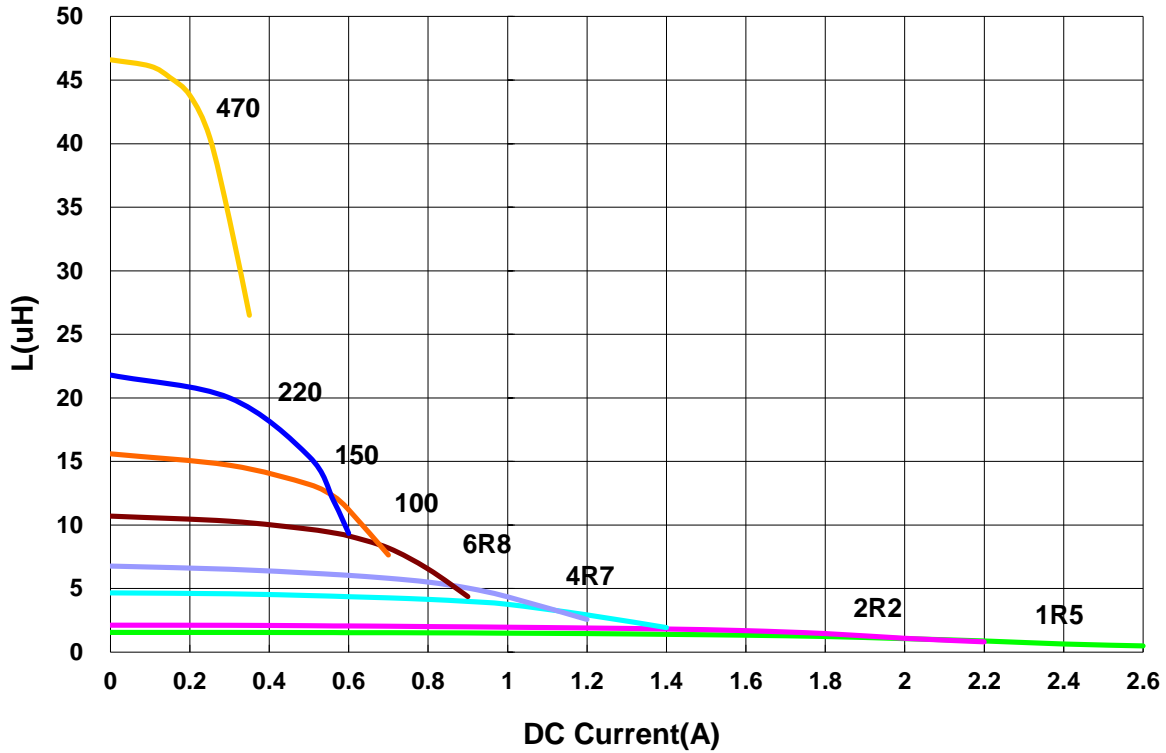
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

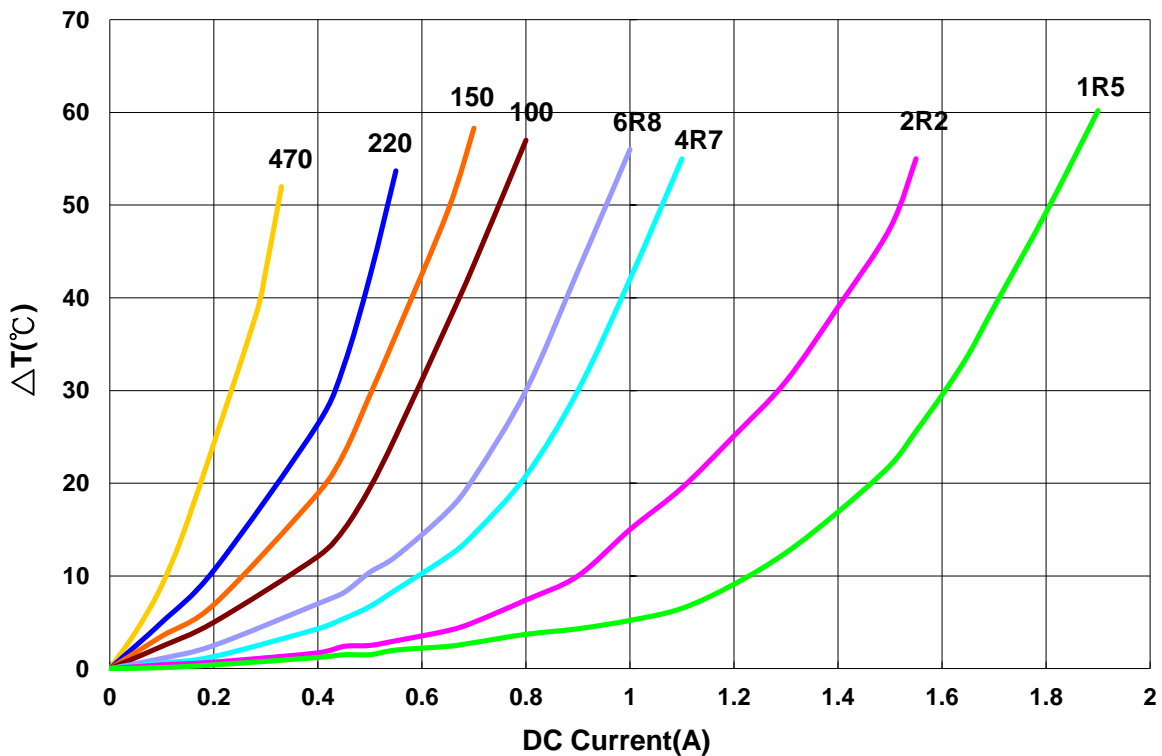
**AWVF00303010 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

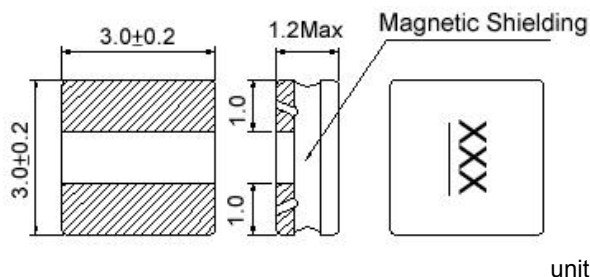


**Power Inductor AWVF Series**

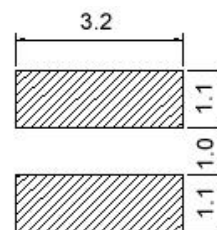
**Automotive  
AEC-Q200**

**AWVF00303012 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF003030122R2□00	2.2	1MHz,200mV	0.092	2.10(1.80)	2.00(1.80)	20,30	2R2
AWVF003030123R3□00	3.3	1MHz,200mV	0.130	1.84(1.60)	1.80(1.60)	20,30	3R3
AWVF003030124R7□00	4.7	1MHz,200mV	0.180	1.56(1.40)	1.52(1.30)	20,30	4R7
AWVF003030126R8□00	6.8	1MHz,200mV	0.250	1.32(1.10)	1.30(1.10)	20,30	6R8
AWVF00303012100□00	10	1MHz,200mV	0.420	1.06(0.95)	1.00(0.90)	20,30	100
AWVF00303012150□00	15	1MHz,200mV	0.560	0.82(0.73)	0.80(0.72)	20,30	150
AWVF00303012220□00	22	1MHz,200mV	0.860	0.64(0.57)	0.62(0.55)	20,30	220
AWVF00303012470□00	47	1MHz,200mV	1.820	0.49(0.44)	0.43(0.38)	20,30	470

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

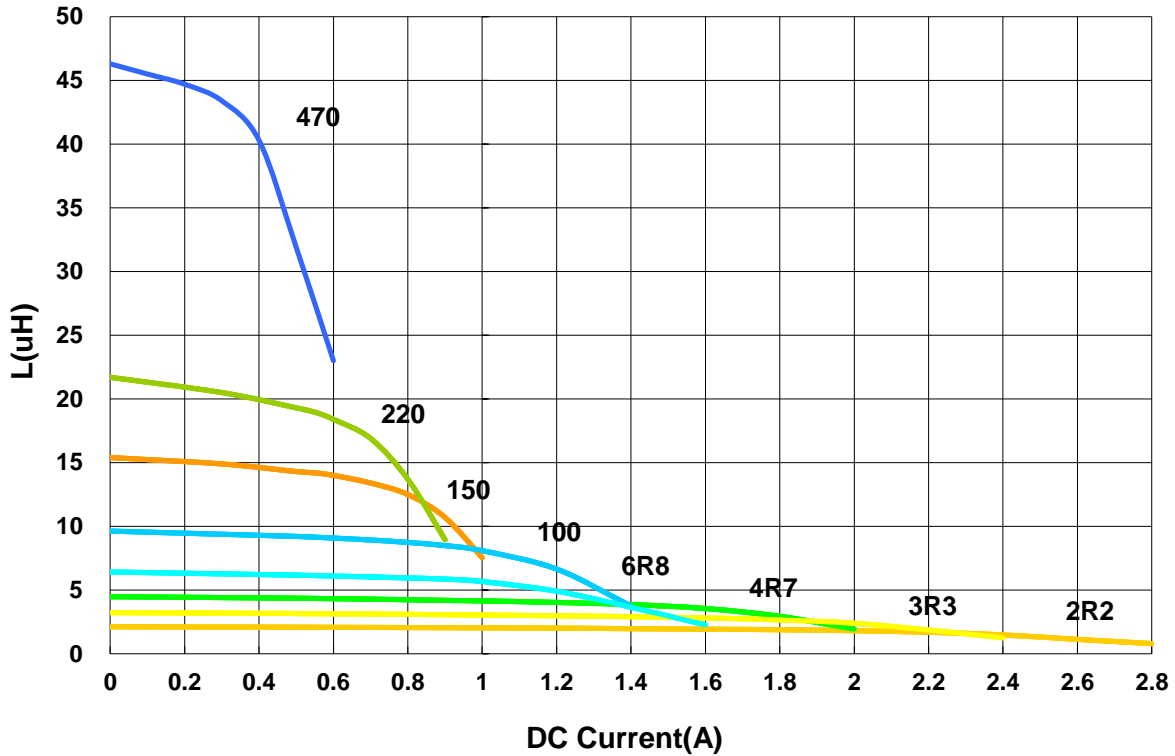
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

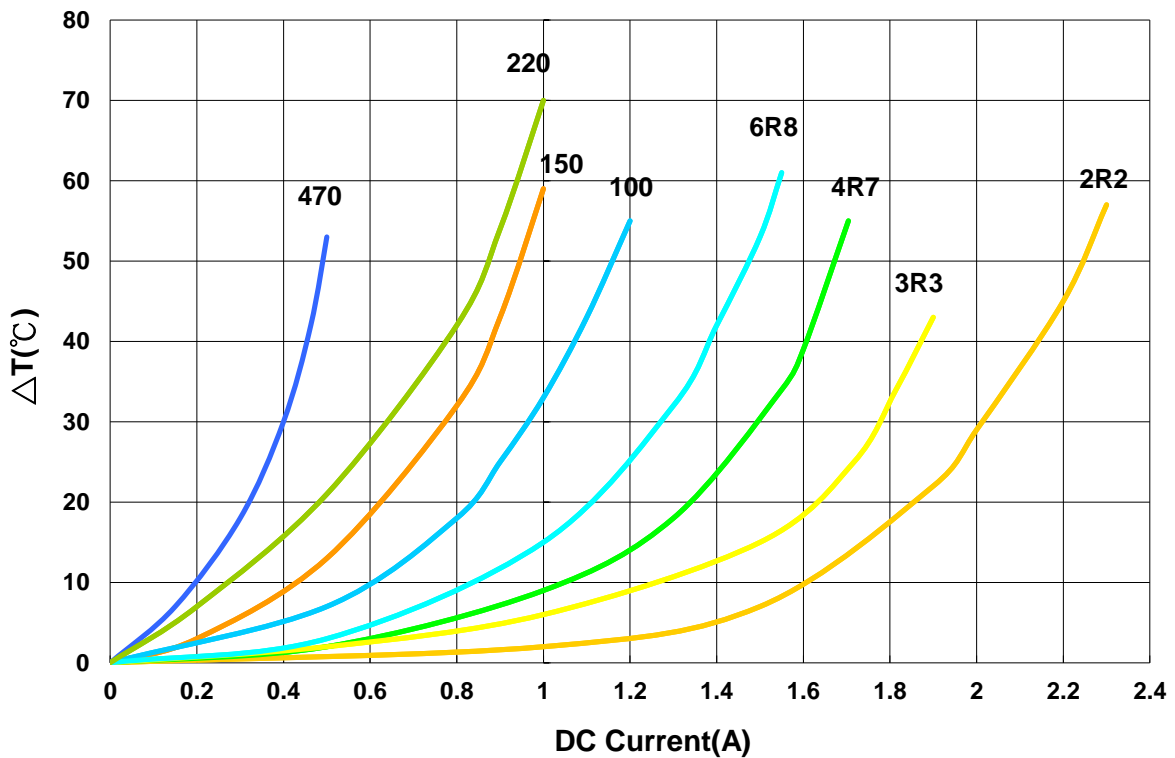
**AWVF00303012 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

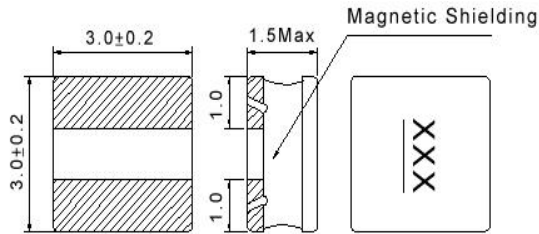


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

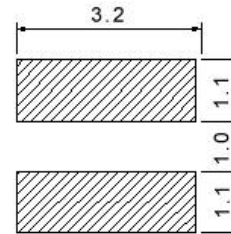
**AWVF00303015 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF00303015R47□00	0.47	1MHz,200mV	0.036	4.70(4.20)	4.00(3.60)	20,30	R47
AWVF003030151R0□00	1.0	1MHz,200mV	0.054	3.40(3.00)	3.00(2.70)	20,30	1R0
AWVF003030151R5□00	1.5	1MHz,200mV	0.063	3.00(2.70)	2.60(2.30)	20,30	1R5
AWVF003030152R2□00	2.2	1MHz,200mV	0.09	2.30(2.00)	2.00(1.80)	20,30	2R2
AWVF003030153R3□00	3.3	1MHz,200mV	0.125	1.90(1.70)	1.80(1.60)	20,30	3R3
AWVF003030154R7□00	4.7	1MHz,200mV	0.17	1.58(1.40)	1.52(1.30)	20,30	4R7
AWVF003030156R8□00	6.8	1MHz,200mV	0.235	1.34(1.20)	1.30(1.10)	20,30	6R8
AWVF00303015100□00	10	1MHz,200mV	0.36	1.06(0.95)	1.00(0.90)	20,30	100
AWVF00303015150□00	15	1MHz,200mV	0.55	0.90(0.81)	0.8(0.72)	20,30	150
AWVF00303015220□00	22	1MHz,200mV	0.77	0.76(0.68)	0.65(0.58)	20,30	220
AWVF00303015330□00	33	1MHz,200mV	0.93	0.65(0.58)	0.6(0.54)	20,30	330
AWVF00303015470□00	47	1MHz,200mV	1.5	0.52(0.46)	0.42(0.37)	20,30	470
AWVF00303015101□00	100	1MHz,200mV	2.7	0.36(0.32)	0.30(0.27)	20,30	101

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A  
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
Isat: Agilent HP4284A  
I rms: Agilent HP4284A

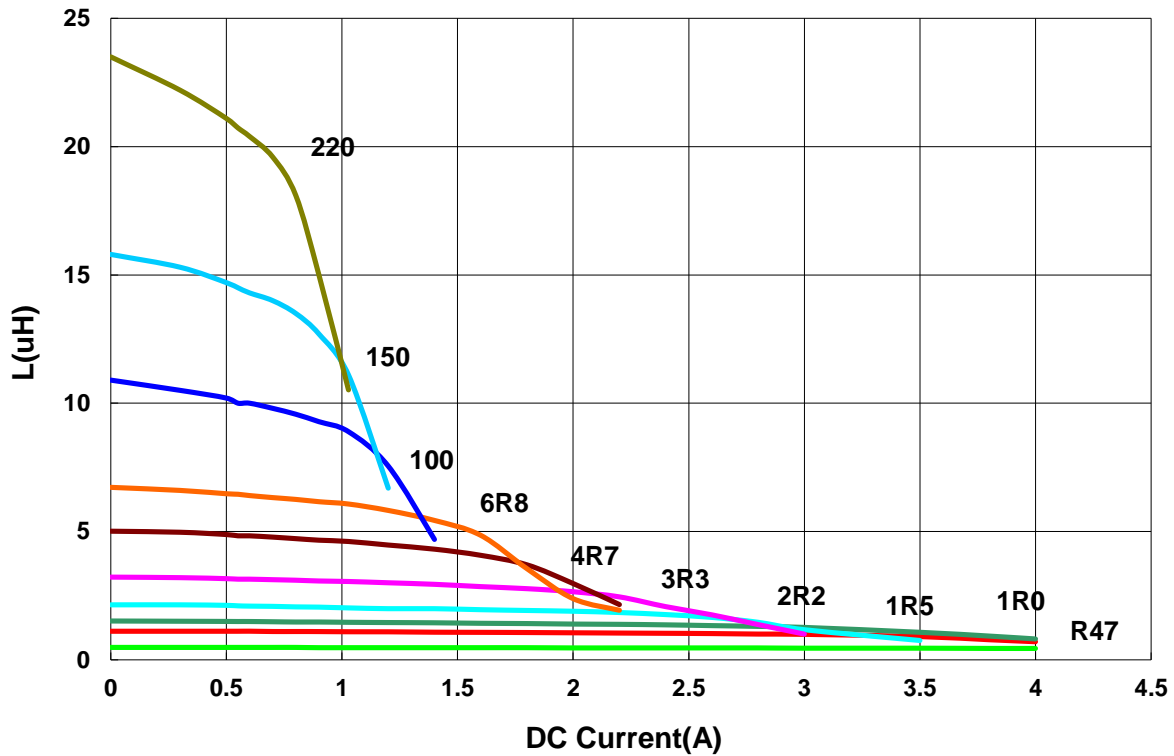
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

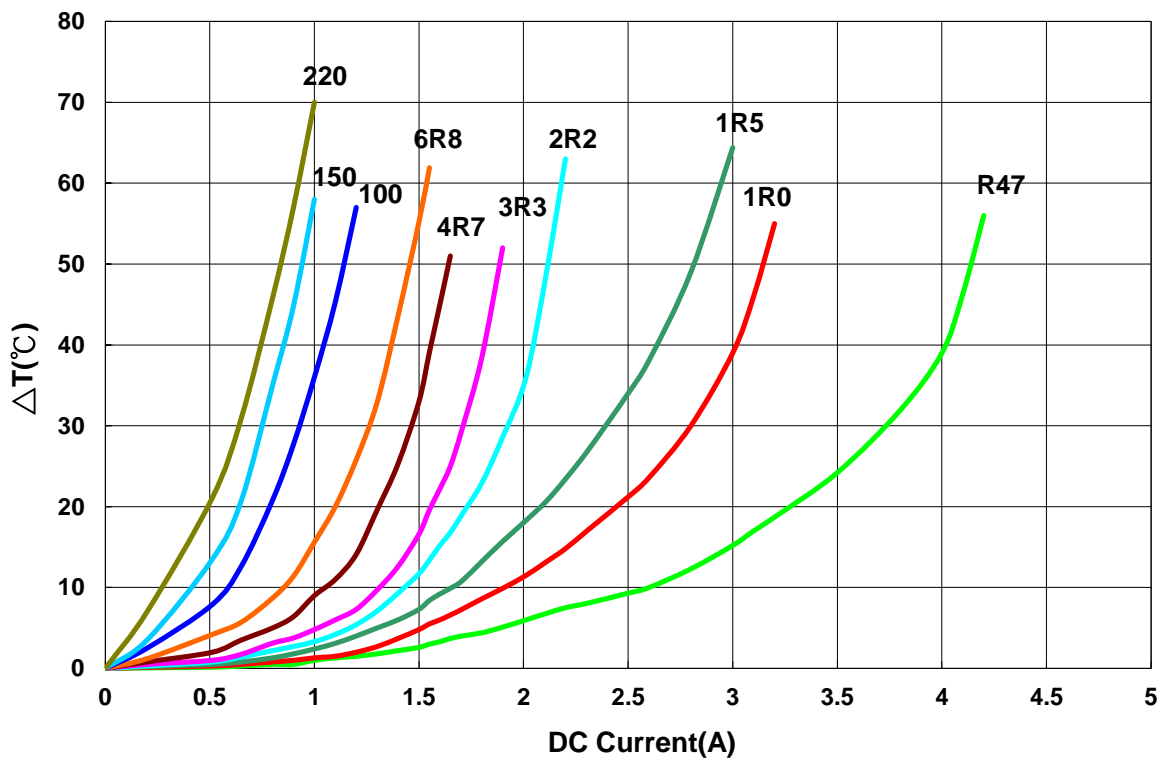
**AWVF00303015 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

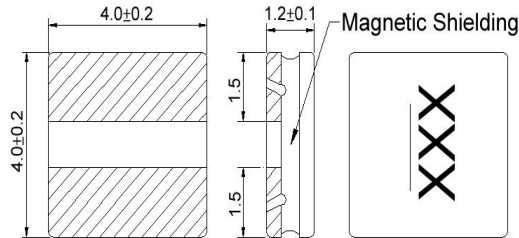


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

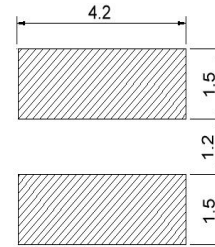
**AWVF00404012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF004040123R3□00	3.3	1MHz,200mV	0.072	1.5(1.30)	2.1(1.80)	20,30	3R3
AWVF00404012100□00	10	1MHz,200mV	0.190	0.9(0.81)	1.2(1.00)	20,30	100

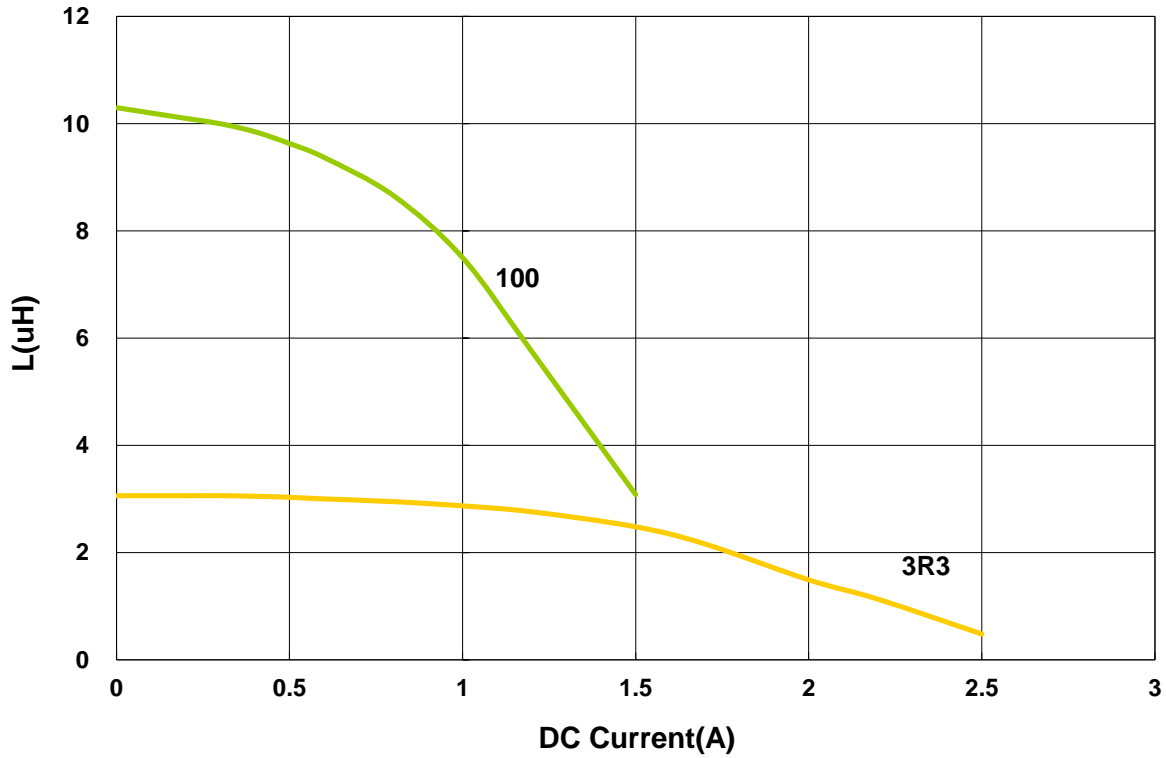
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

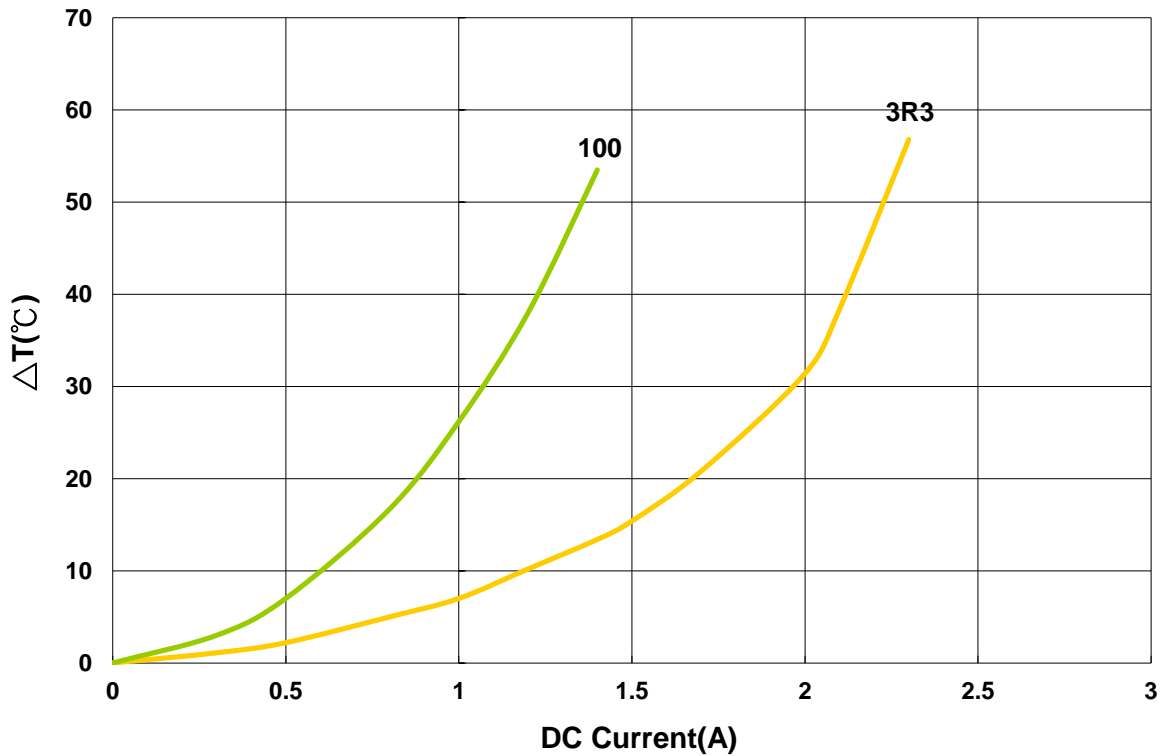
AWVF00404012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



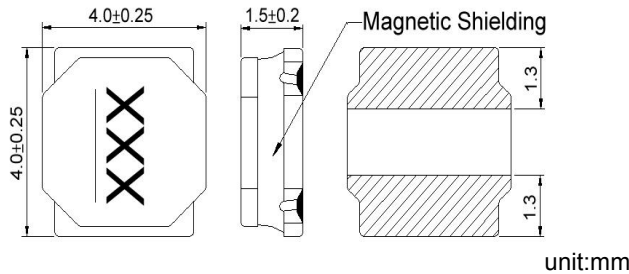


**Power Inductor AWVF Series**

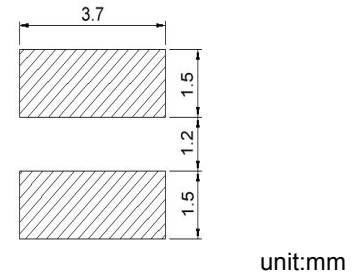
**Automotive  
AEC-Q200**

**AWVF00404015 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF00404015R47□00	0.47	1MHz,200mV	0.019	4.00(3.60)	4.2(3.70)	20,30	R47
AWVF004040151R5□00	1.5	1MHz,200mV	0.041	3.00(2.70)	3.2(2.80)	20,30	1R5
AWVF004040152R2□00	2.2	1MHz,200mV	0.054	2.30(2.00)	2.6(2.30)	20,30	2R2
AWVF004040154R7□00	4.7	1MHz,200mV	0.100	1.60(1.40)	1.8(1.60)	20,30	4R7
AWVF004040156R8□00	6.8	1MHz,200mV	0.138	1.40(1.20)	1.6(1.40)	20,30	6R8
AWVF00404015100□00	10	1MHz,200mV	0.200	1.00(0.90)	1.2(1.00)	20,30	100
AWVF00404015150□00	15	1MHz,200mV	0.300	0.92(0.82)	1.0(0.94)	20,30	150
AWVF00404015220□00	22	1MHz,200mV	0.400	0.72(0.64)	0.85(0.76)	20,30	220

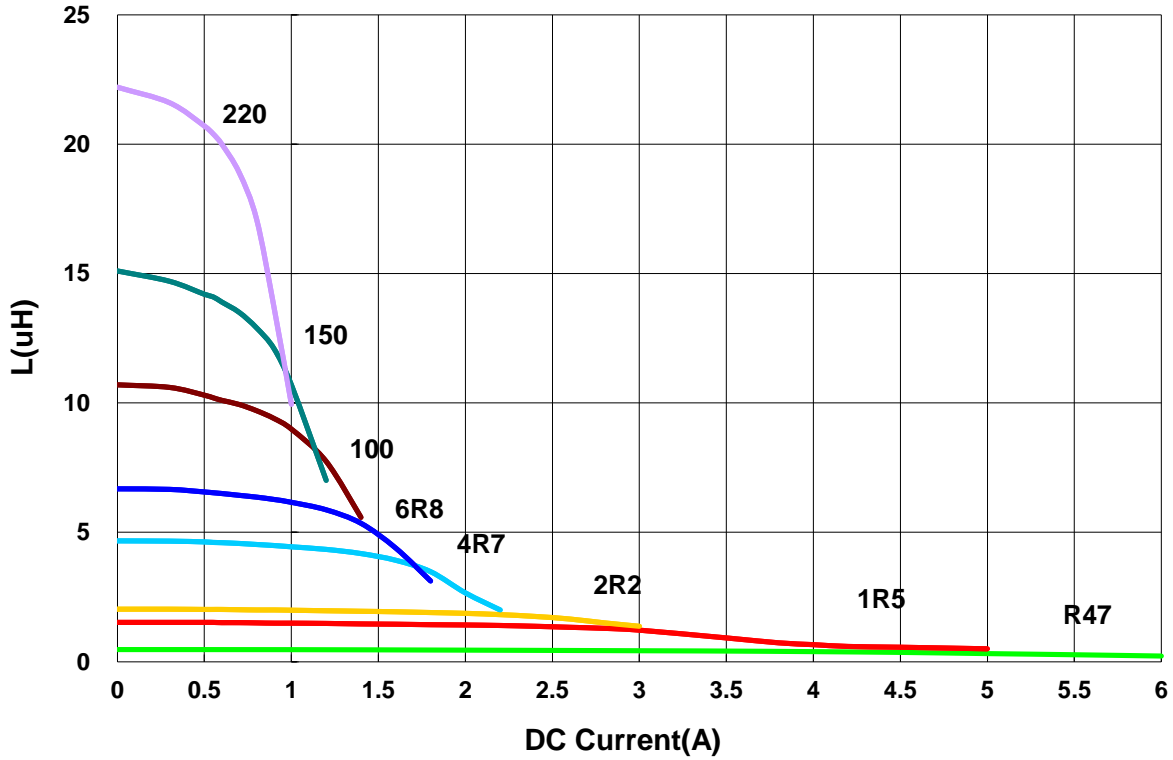
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

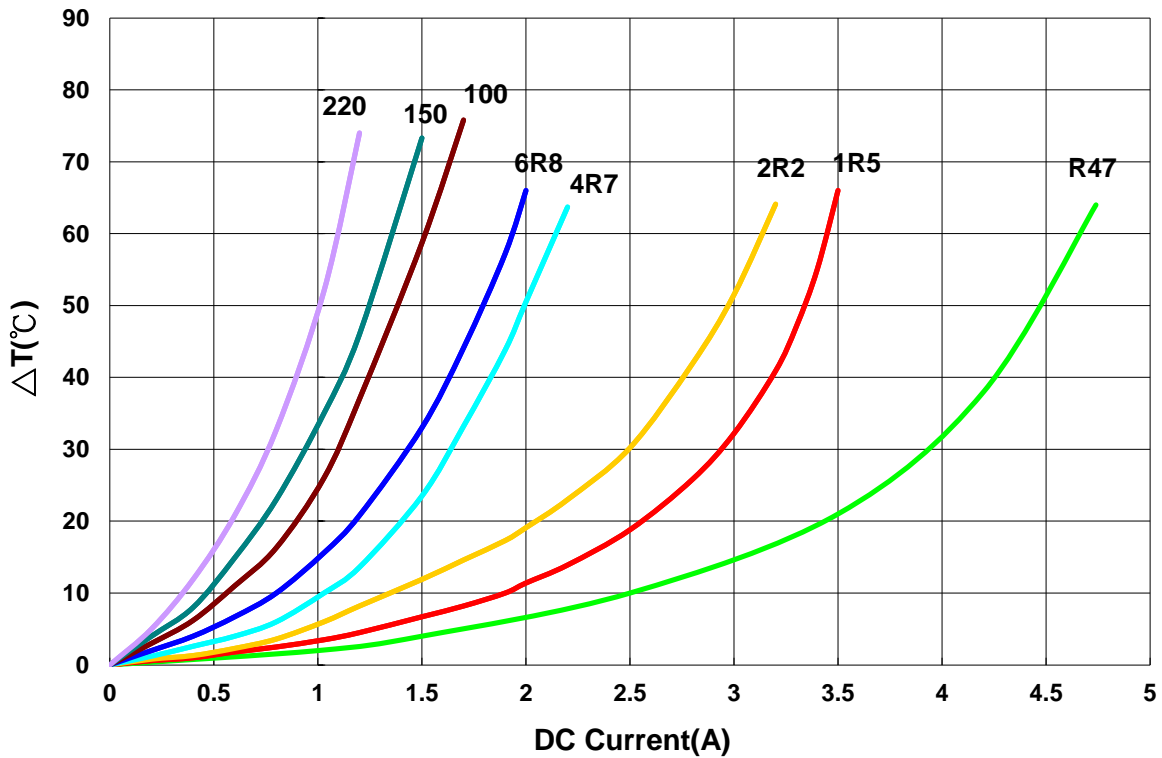
AWVF00404015 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

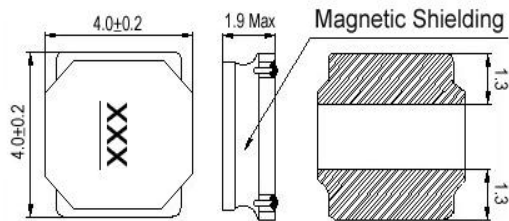


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

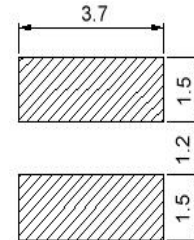
**AWVF00404018 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF004040181R0□00	1.0	100kHz,1V	0.0265	4.20(3.70)	3.80(3.40)	20,30	1R0
AWVF004040181R5□00	1.5	100kHz,1V	0.0370	3.50(3.10)	3.20(2.80)	20,30	1R5
AWVF004040182R2□00	2.2	100kHz,1V	0.0470	3.00(2.70)	2.70(2.40)	20,30	2R2
AWVF004040183R3□00	3.3	100kHz,1V	0.0625	2.30(2.00)	2.10(1.80)	20,30	3R3
AWVF00404018220□00	22	100kHz,1V	0.335	0.90(0.81)	0.88(0.79)	20,30	220

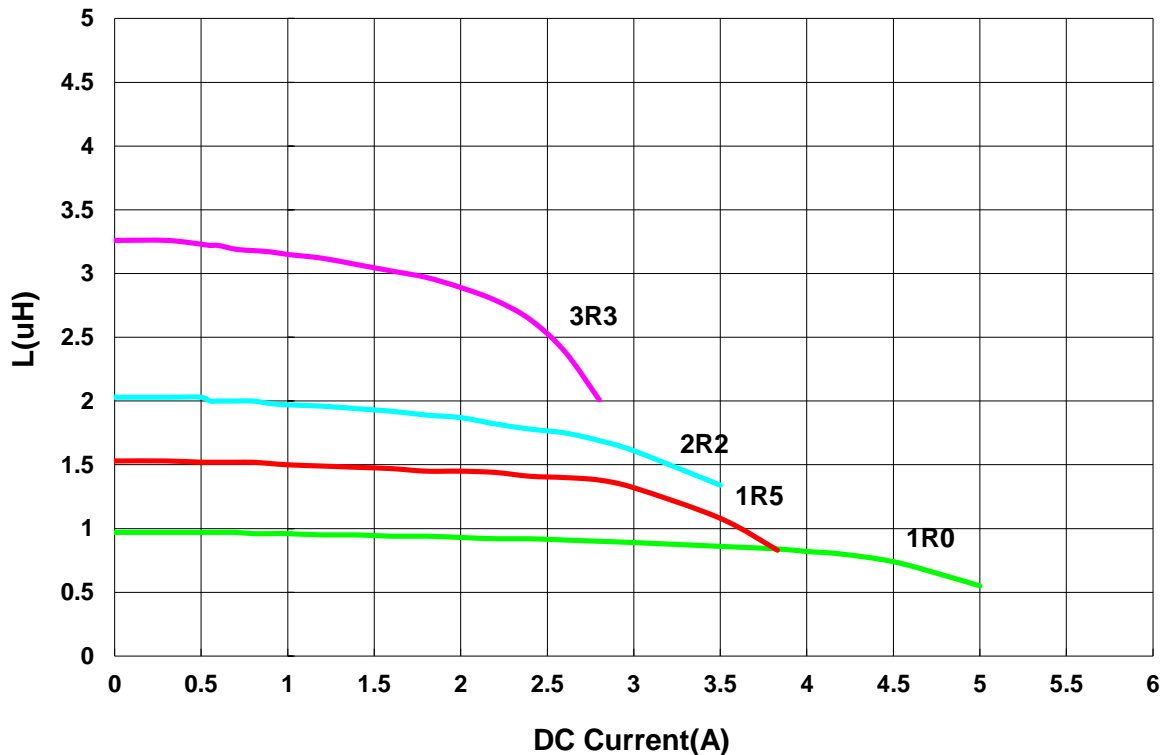
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I<sub>rms</sub>: Agilent HP4284A

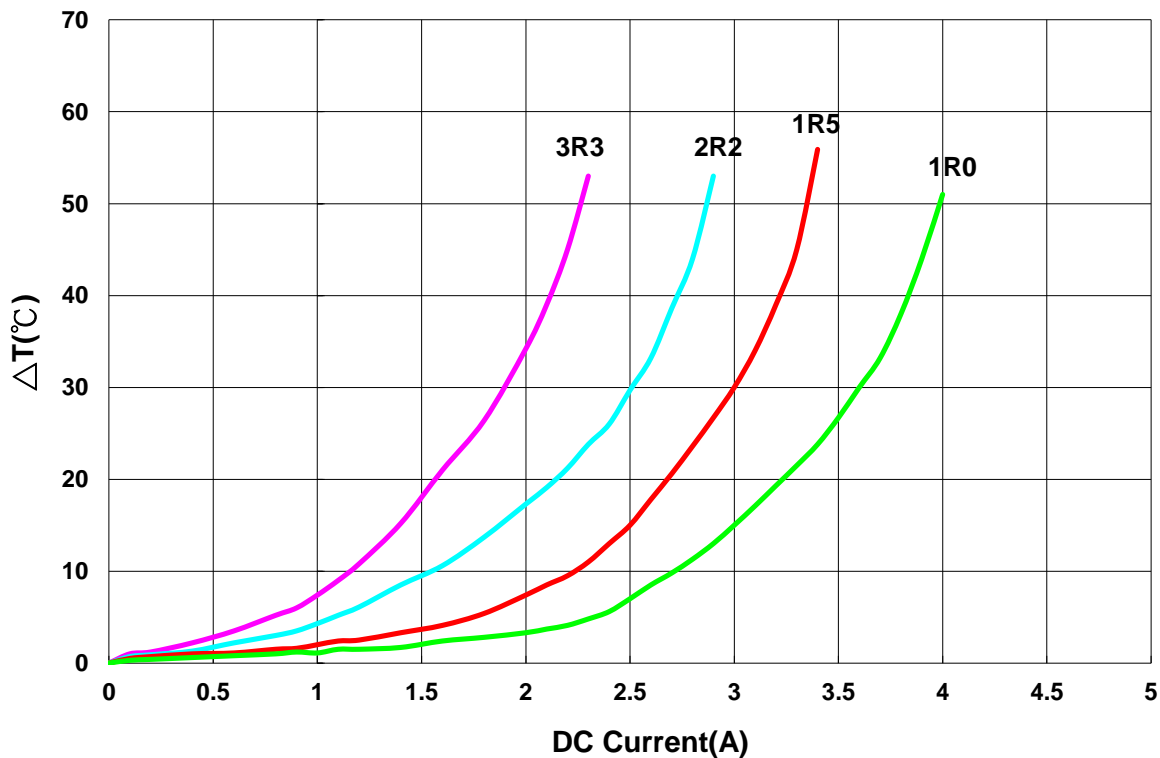
AWVF00404018 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

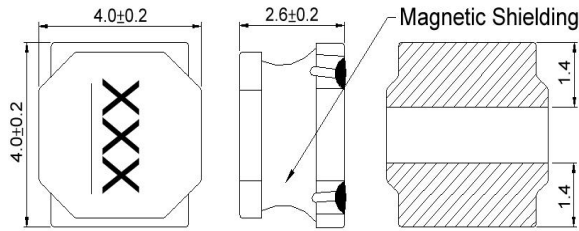


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

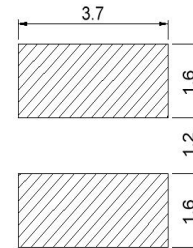
**AWVF00404026 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF004040261R0□00	1.0	100kHz,1V	0.030	5.00(4.50)	4.00(3.60)	20,30	1R0
AWVF004040261R5□00	1.5	100kHz,1V	0.035	4.20(3.70)	3.70(3.3)	20,30	1R5
AWVF004040262R2□00	2.2	100kHz,1V	0.045	3.80(3.40)	3.50(3.1)	20,30	2R2
AWVF004040263R3□00	3.3	100kHz,1V	0.067	3.00(2.70)	2.50(2.2)	20,30	3R3
AWVF004040264R7□00	4.7	100kHz,1V	0.092	2.60(2.30)	2.00(1.80)	20,30	4R7
AWVF004040265R6□00	5.6	100kHz,1V	0.110	2.30(2.00)	1.90(1.70)	20,30	5R6
AWVF004040266R8□00	6.8	100kHz,1V	0.130	2.00(1.80)	1.70(1.50)	20,30	6R8
AWVF00404026100□00	10	100kHz,1V	0.188	1.90(1.70)	1.40(1.20)	20,30	100
AWVF00404026150□00	15	100kHz,1V	0.240	1.40(1.30)	1.20(1.00)	20,30	150
AWVF00404026220□00	22	100kHz,1V	0.330	1.20(1.00)	1.00(0.90)	20,30	220
AWVF00404026330□00	33	100kHz,1V	0.480	1.00(0.90)	0.82(0.73)	20,30	330
AWVF00404026470□00	47	100kHz,1V	0.735	0.88(0.79)	0.64(0.57)	20,30	470
AWVF00404026101□00	100	100kHz,1V	1.380	0.58(0.52)	0.50(0.45)	20,30	101
AWVF00404026331□00	330	100kHz,1V	4.600	0.31(0.27)	0.25(0.22)	20,30	331

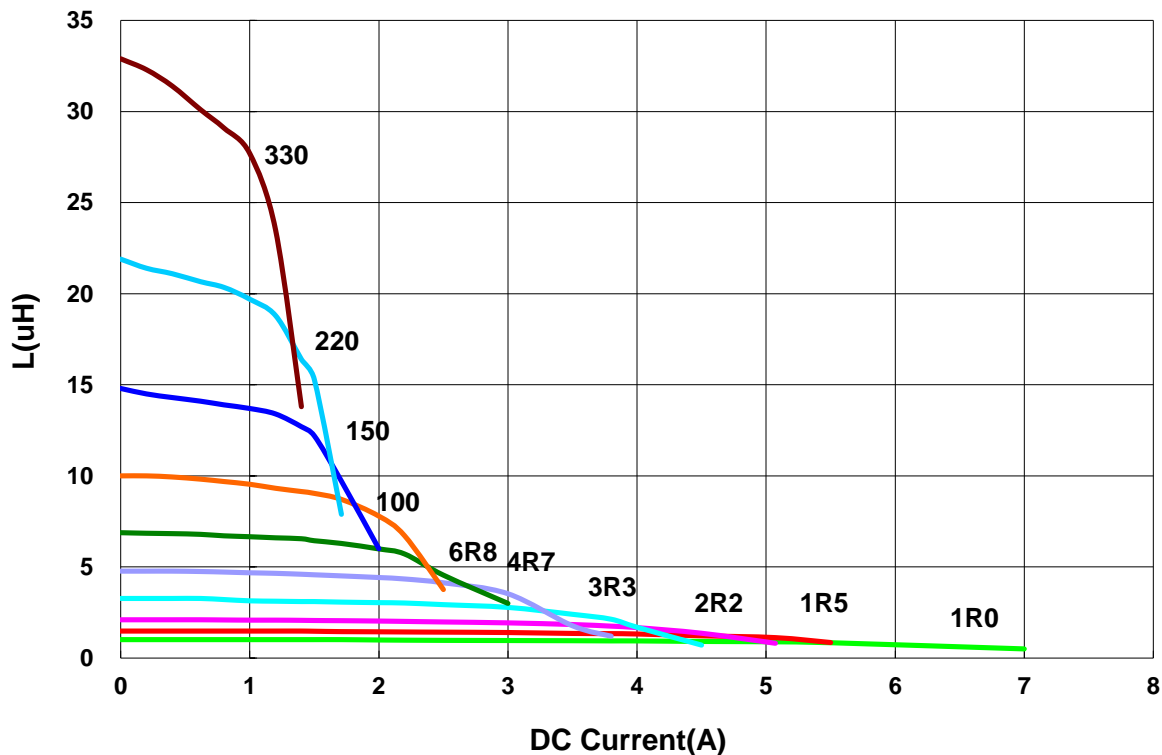
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

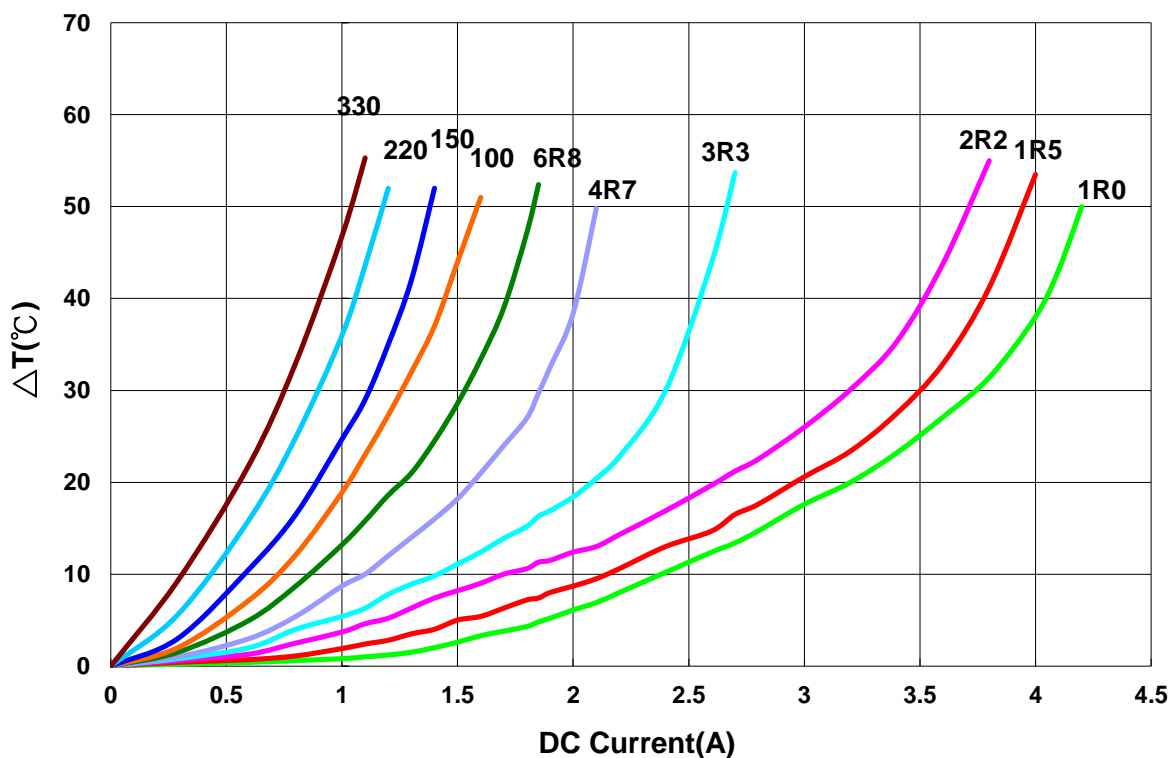
AWVF00404026 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

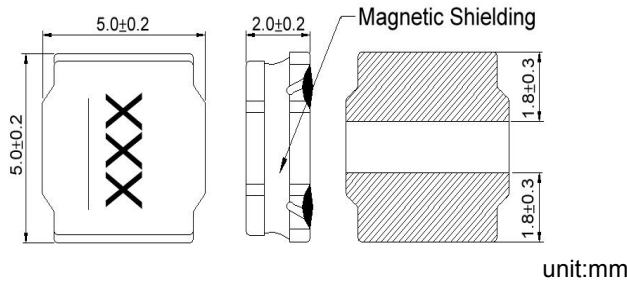


**Power Inductor AWVF Series**

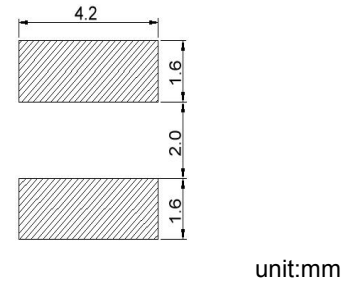
**Automotive  
AEC-Q200**

**AWVF00505020 Type**

**Dimensions**



**Recommended Land Pattern**



**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF005050201R0□00	1.0	100kHz,1V	0.018	6.0(5.4)	4.1(3.6)	20,30	1R0
AWVF005050201R5□00	1.5	100kHz,1V	0.023	4.9(4.4)	3.5(3.1)	20,30	1R5
AWVF005050201R8□00	1.8	100kHz,1V	0.026	4.1(3.6)	3.4(3.0)	20,30	1R8
AWVF005050202R2□00	2.2	100kHz,1V	0.030	4.0(3.6)	3.3(2.9)	20,30	2R2
AWVF005050203R6□00	3.6	100kHz,1V	0.050	3.1(2.7)	2.7(2.4)	20,30	3R6
AWVF005050203R9□00	3.9	100kHz,1V	0.053	2.9(2.6)	2.6(2.3)	20,30	3R9
AWVF005050204R7□00	4.7	100kHz,1V	0.060	2.7(2.4)	2.2(1.9)	20,30	4R7
AWVF005050206R8□00	6.8	100kHz,1V	0.093	2.2(1.9)	1.8(1.6)	20,30	6R8
AWVF00505020100□00	10	100kHz,1V	0.125	1.8(1.6)	1.6(1.4)	20,30	100
AWVF00505020150□00	15	100kHz,1V	0.195	1.4(1.2)	1.2(1.0)	20,30	150
AWVF00505020220□00	22	100kHz,1V	0.265	1.2(1.0)	1.0(0.9)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

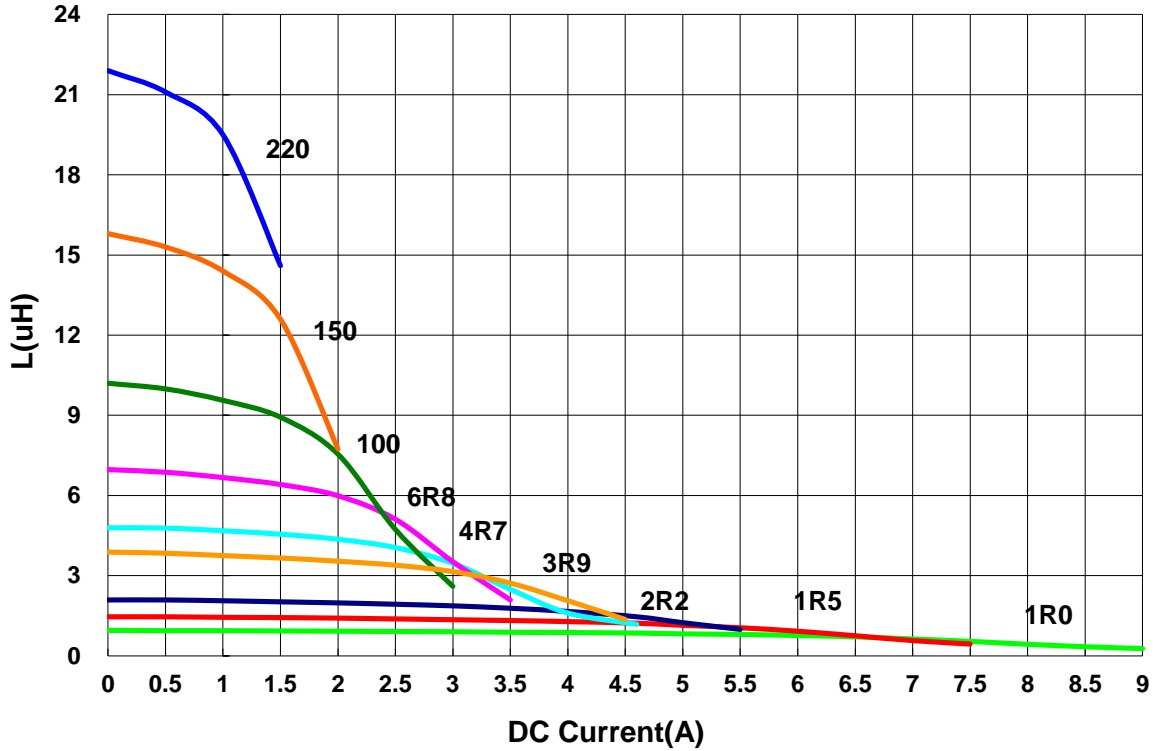
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

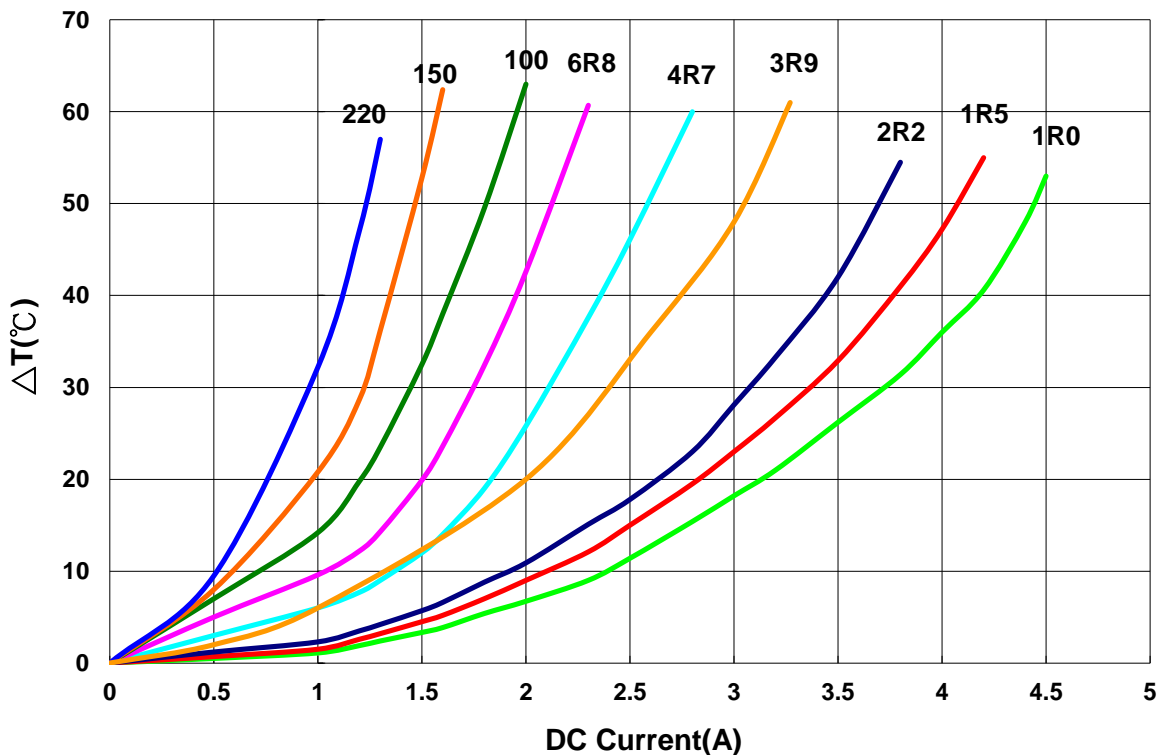
**AWVF00505020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



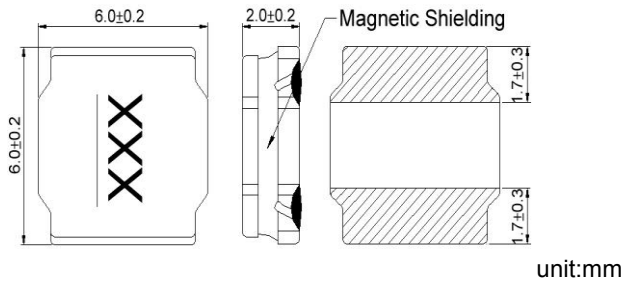


**Power Inductor AWVF Series**

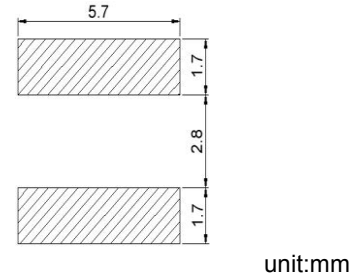
**Automotive  
AEC-Q200**

**AWVF00606020 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF006060204R7□00	4.7	100kHz,1V	0.058	3.0(2.7)	2.3(2.0)	20,30	4R7
AWVF00606020100□00	10	100kHz,1V	0.130	2.1(1.8)	1.6(1.4)	20,30	100
AWVF00606020150□00	15	100kHz,1V	0.195	1.6(1.4)	1.3(1.1)	20,30	150
AWVF00606020220□00	22	100kHz,1V	0.260	1.3(1.1)	1.1(0.99)	20,30	220
AWVF00606020470□00	47	100kHz,1V	0.510	0.9(0.8)	0.8(0.72)	20,30	470

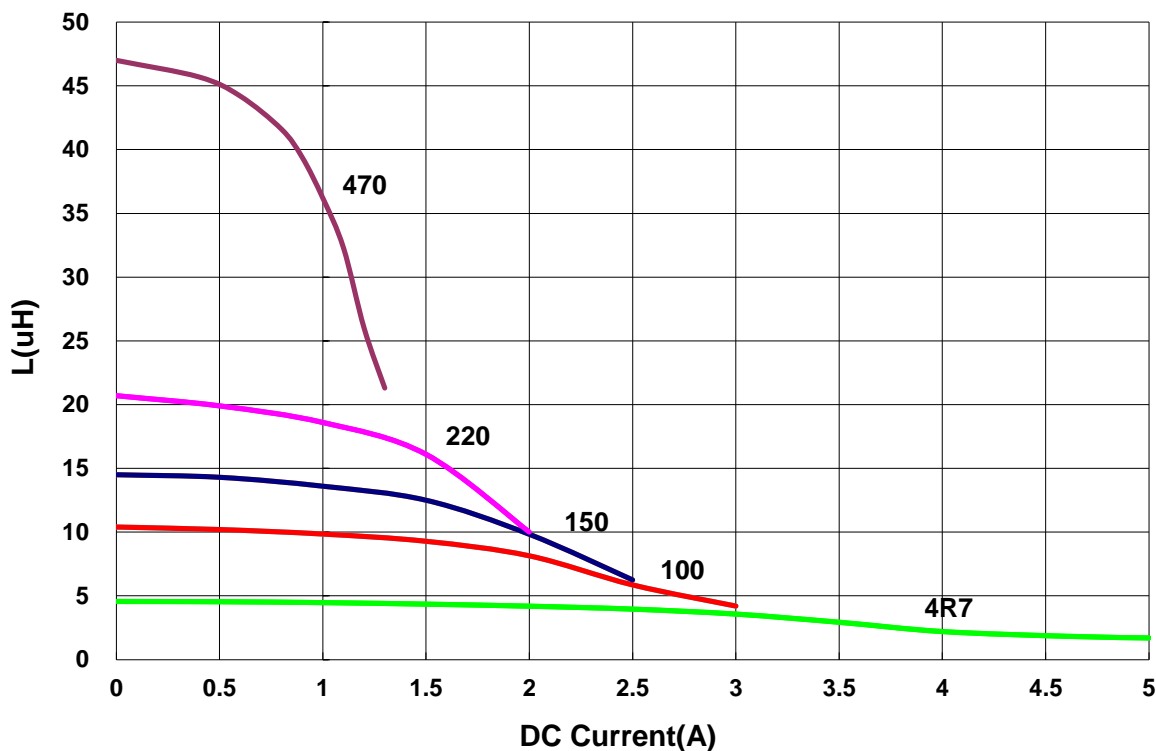
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

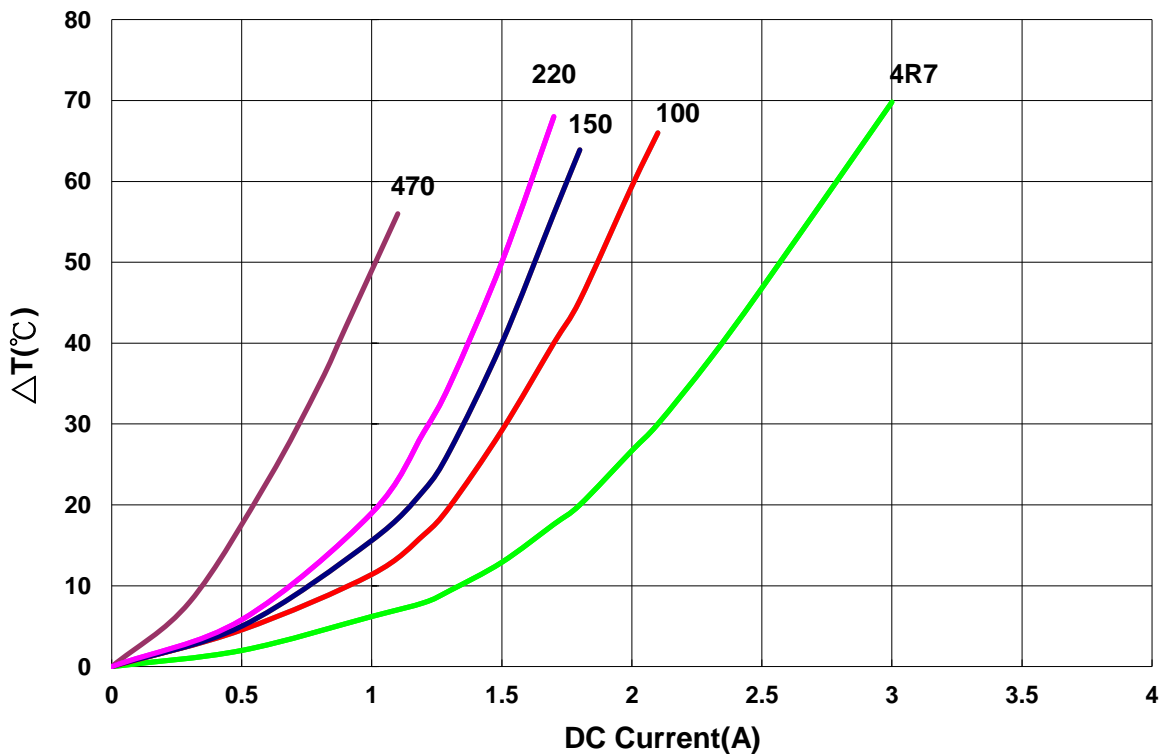
AWVF00606020 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

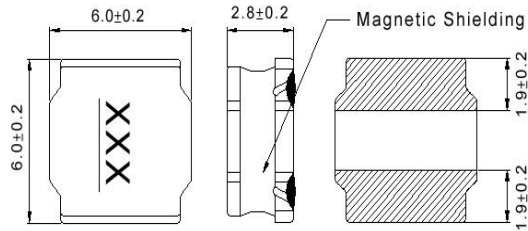


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

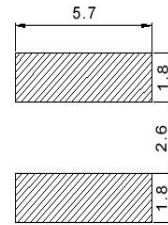
**AWVF00606028 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVF006060281R0□00	1.0	100kHz,1V	0.012	7.9(7.10)	6.3(5.60)	20,30	1R0
AWVF006060281R5□00	1.5	100kHz,1V	0.015	7.0(6.30)	5.5(4.90)	20,30	1R5
AWVF006060282R2□00	2.2	100kHz,1V	0.020	6.0(5.40)	5.0(4.50)	20,30	2R2
AWVF006060284R7□00	4.7	100kHz,1V	0.036	4.0(3.60)	3.4(3.00)	20,30	4R7
AWVF006060286R8□00	6.8	100kHz,1V	0.048	3.2(2.80)	3.0(2.70)	20,30	6R8

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

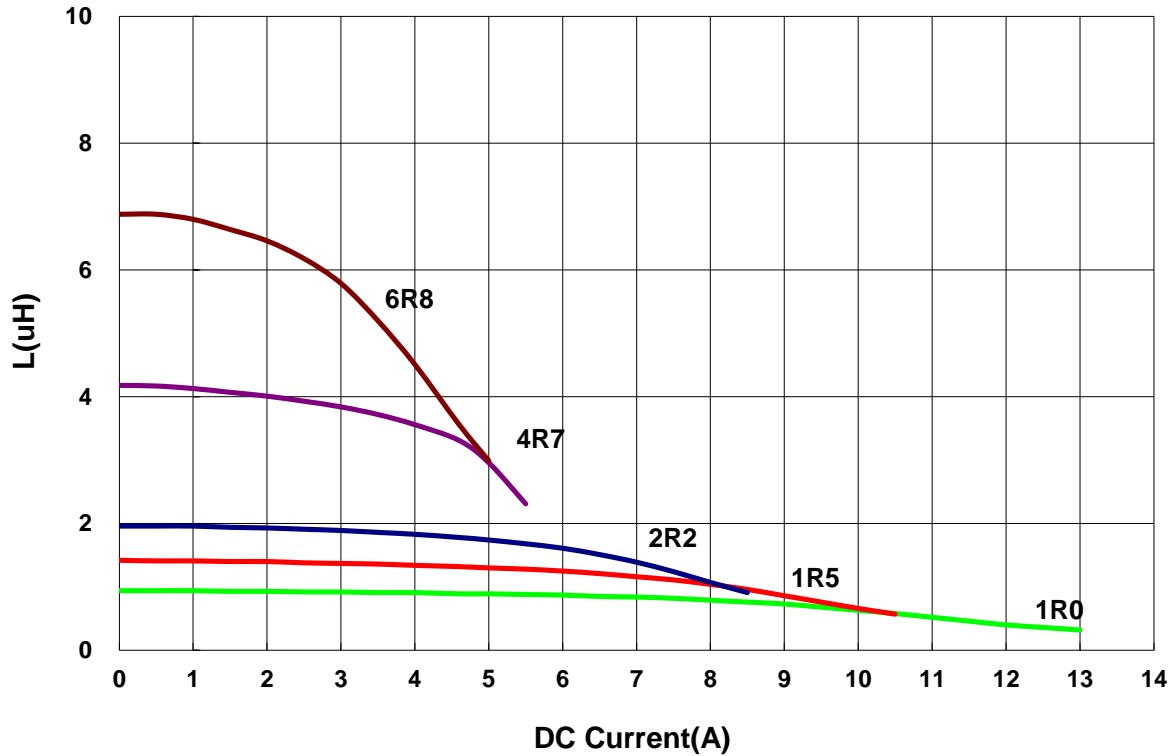
**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

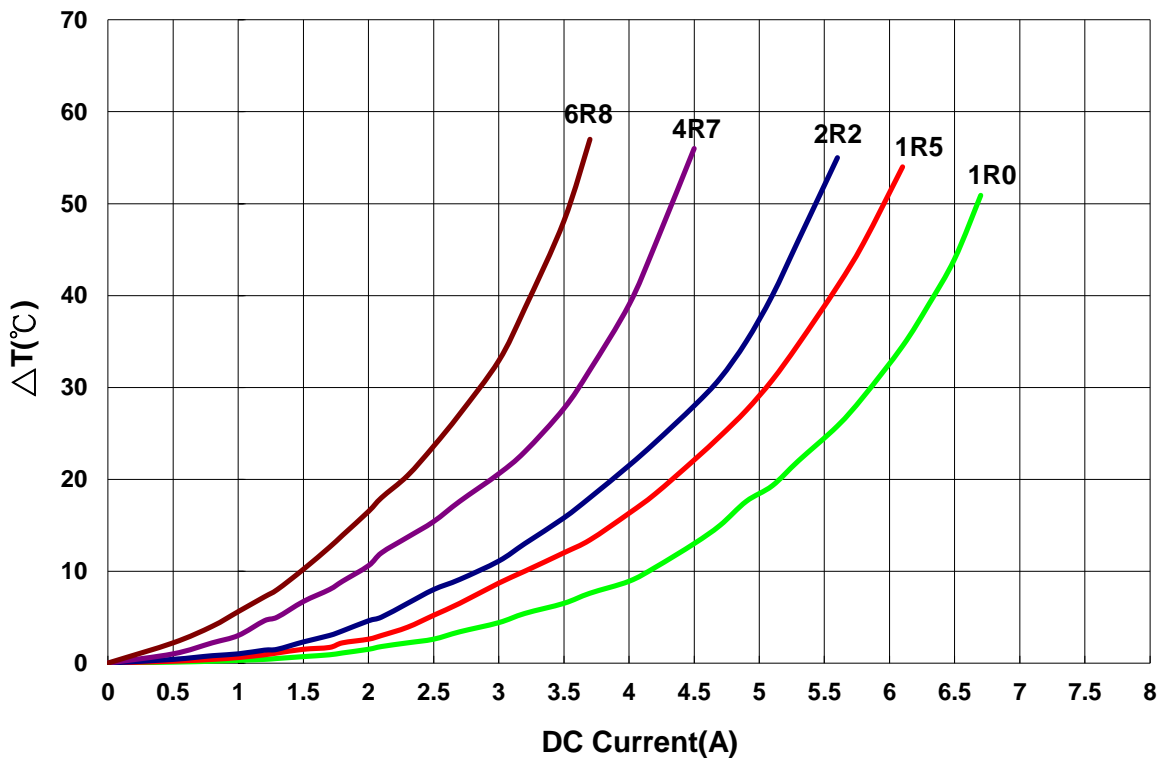
**AWVF00606028 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

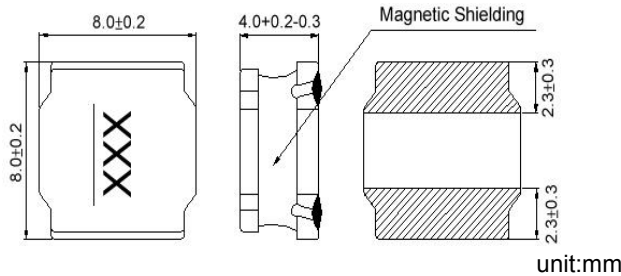


**Power Inductor AWVF Series**

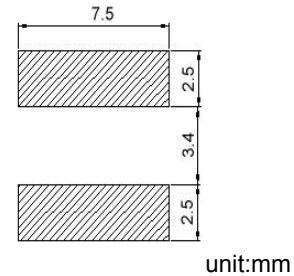
**Automotive  
AEC-Q200**

**AWVF00808040 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC ( $\Omega$ ) $\pm 30\%$	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance ( $\pm\%$ )	Marking
AWVF008080404R7□00	4.7	100kHz,1V	0.020	6.8(6.00)	5.5(4.80)	20,30	4R7
AWVF00808040100□00	10	100kHz,1V	0.038	5.0(4.40)	3.8(3.30)	20,30	100
AWVF00808040150□00	15	100kHz,1V	0.057	4.0(3.50)	3.2(2.70)	20,30	150
AWVF00808040220□00	22	100kHz,1V	0.082	3.4(2.90)	2.7(2.30)	20,30	220

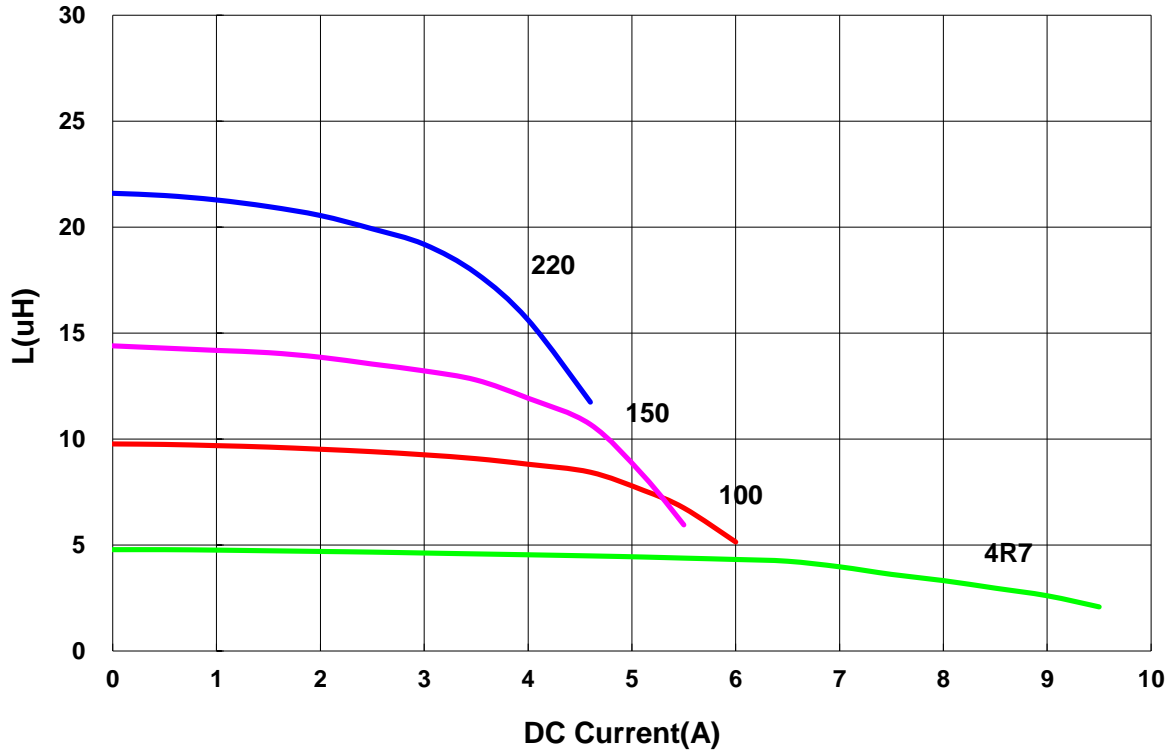
**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$  / T= $\pm 30\%$**

1. Operating temperature range -  $40^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 30% from its value without current
3. I rms for a  $40^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

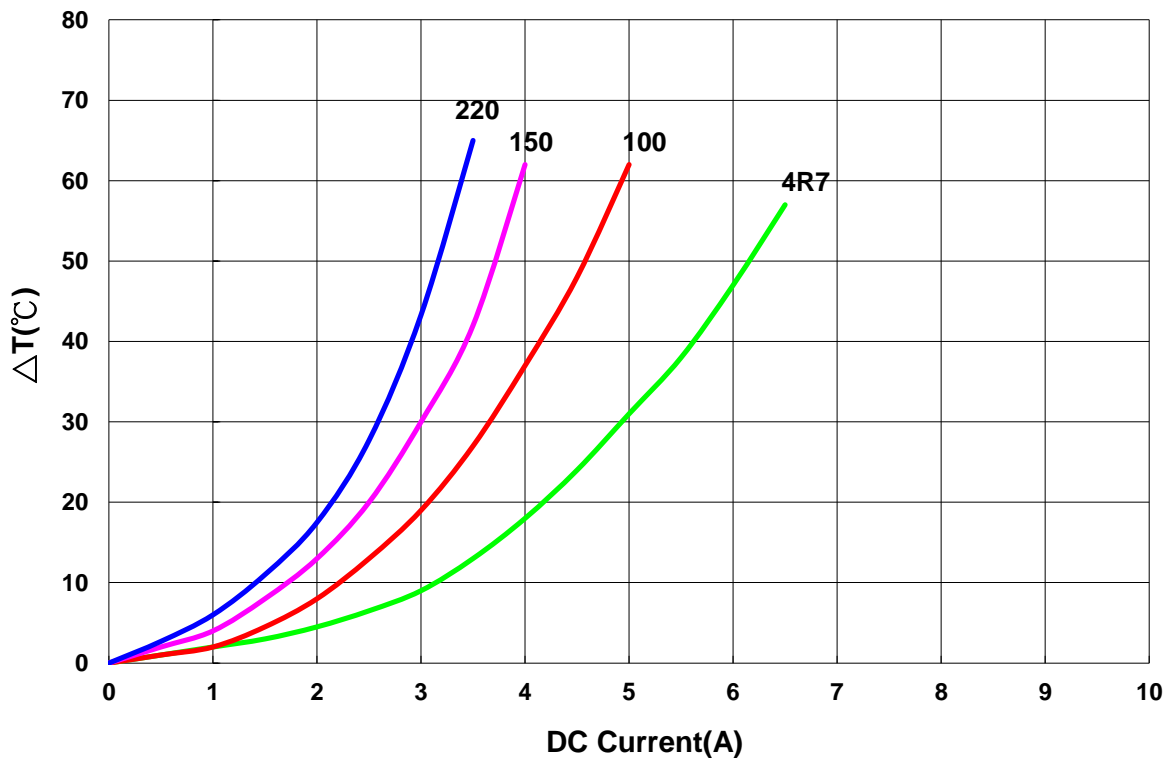
AWVF00808040 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

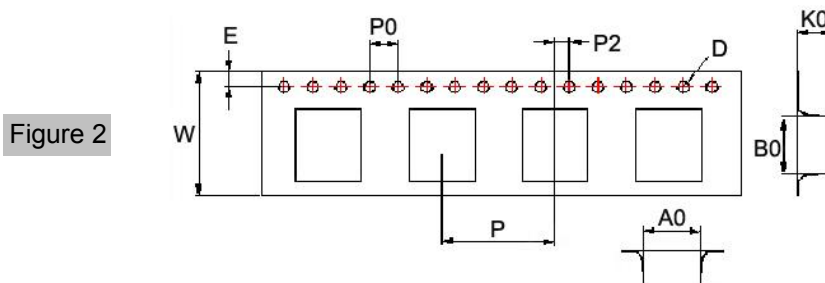
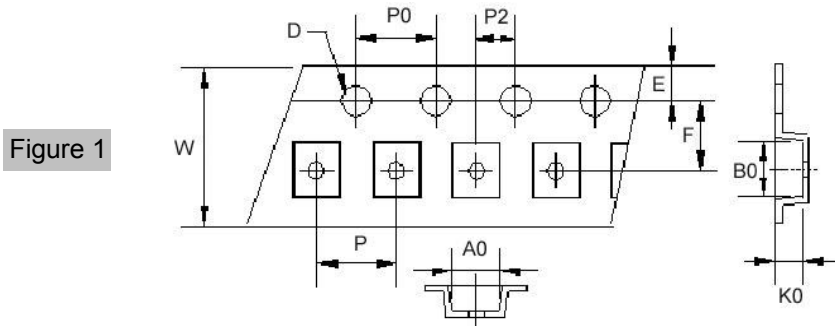


**Power Inductor AWVF Series**

**Automotive  
AEC-Q200**

**■ Packaging**

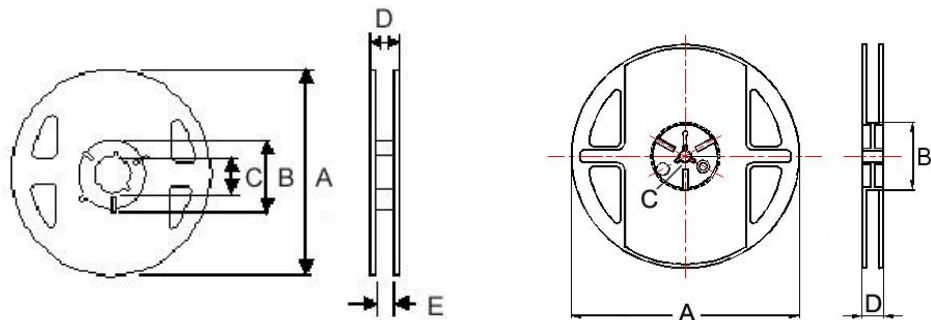
Tape Dimensions



Reel Dimensions

Figure 1

Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
AWVF00201612	1	1.9	2.2	1.3	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00252010	1	2.4	2.7	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00252012	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00303010	1	3.2	3.2	1.4	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00303012	1	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00303015	1	3.15	3.15	1.60	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVF00404012	2	4.25	4.25	1.3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
AWVF00404015	2	4.25	4.25	1.7	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
AWVF00404018	2	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
AWVF00404026	2	4.25	4.25	3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500
AWVF00505020	2	5.25	5.25	2.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	2000
AWVF00606020	2	6.25	6.25	2.2	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	2000
AWVF00606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1500
AWVF00808040	2	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1000

**Power Inductor AWVT Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



**Part Numbering**

A	WVT	00	252012	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			201610 2.0x1.6x1.0	R47 0.47	M ±20%	
			252010 2.5x2.0x1.02	1R0 1.0	T ±30%	
			252012 2.5x2.0x1.2	101 100		
			303010 3.0x3.0x1.02			
			303012 3.0x3.0x1.2			
			404012 4.0x4.0x1.2			
			404015 4.0x4.0x1.5			
			404026 4.0x4.0x2.6			
			505020 5.0x5.0x2.0			
			606020 6.0x6.0x2.0			
			808040 8.0x8.0x4.0			

This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

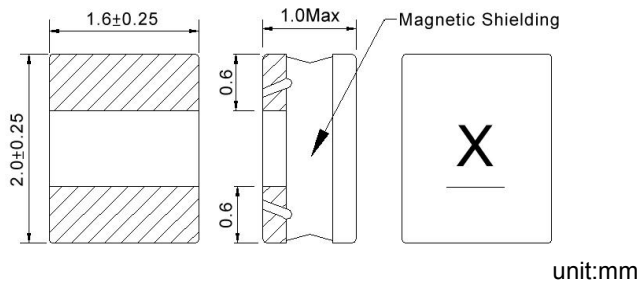


**Power Inductor AWT Series**

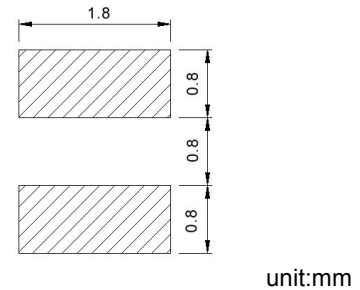
**Automotive  
AEC-Q200**

**AWVT00201610 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00201610R47□00	0.47	1MHz,200mV	0.072	2.40(2.10)	2.40(2.10)	20,30	A

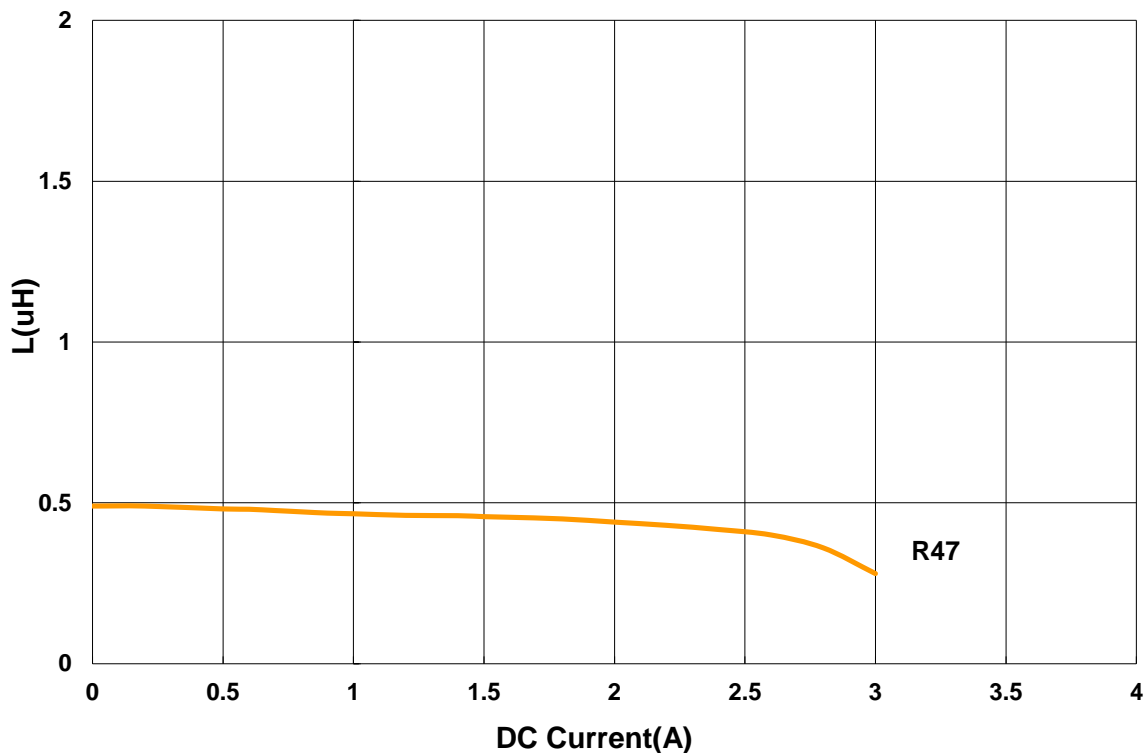
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

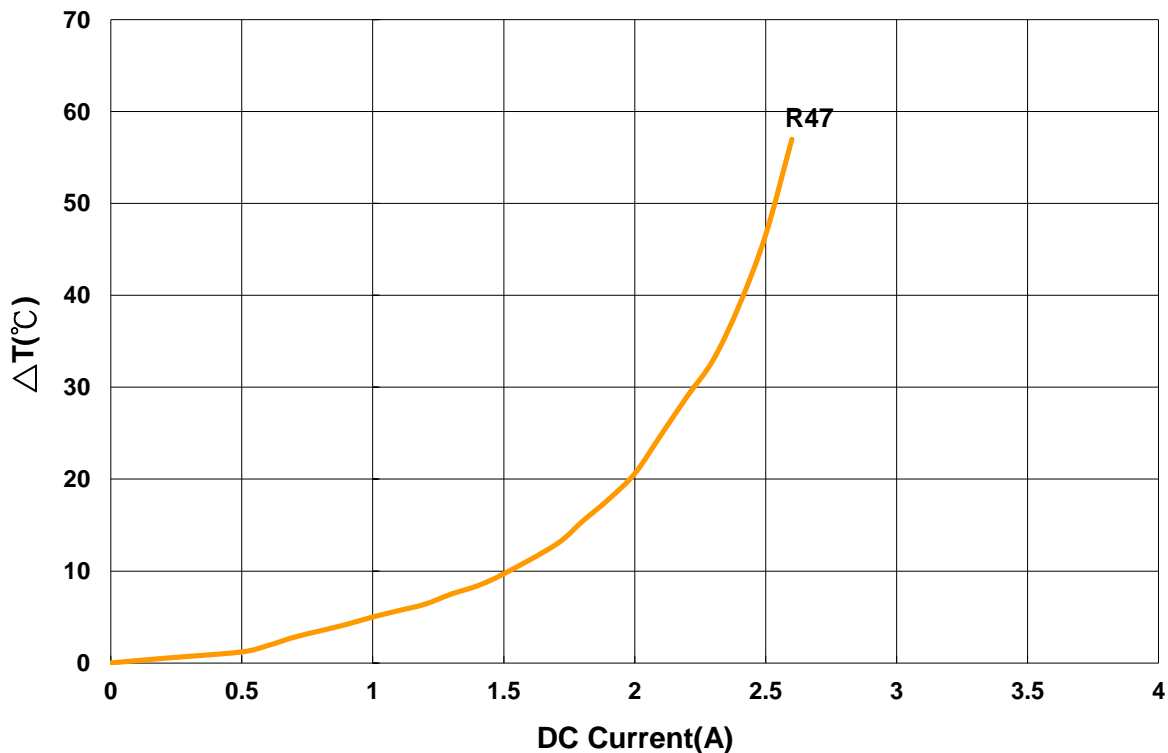
AWVT00201610 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

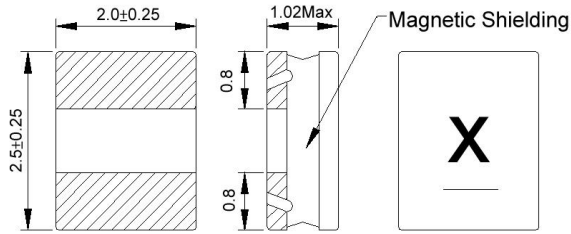


**Power Inductor AWT Series**

**Automotive  
AEC-Q200**

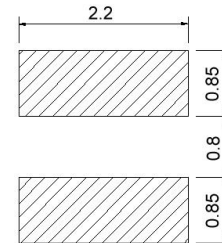
**AWVT00252010 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00252010R68□00	0.68	1MHz,200mV	0.050	2.40(2.10)	2.20(1.90)	20,30	K
AWVT002520102R2□00	2.2	1MHz,200mV	0.135	1.40(1.20)	1.50(1.30)	20,30	D
AWVT002520103R3□00	3.3	1MHz,200mV	0.220	1.10(1.00)	1.20(1.00)	20,30	E
AWVT002520106R8□00	6.8	1MHz,200mV	0.435	0.78(0.70)	0.84(0.75)	20,30	G

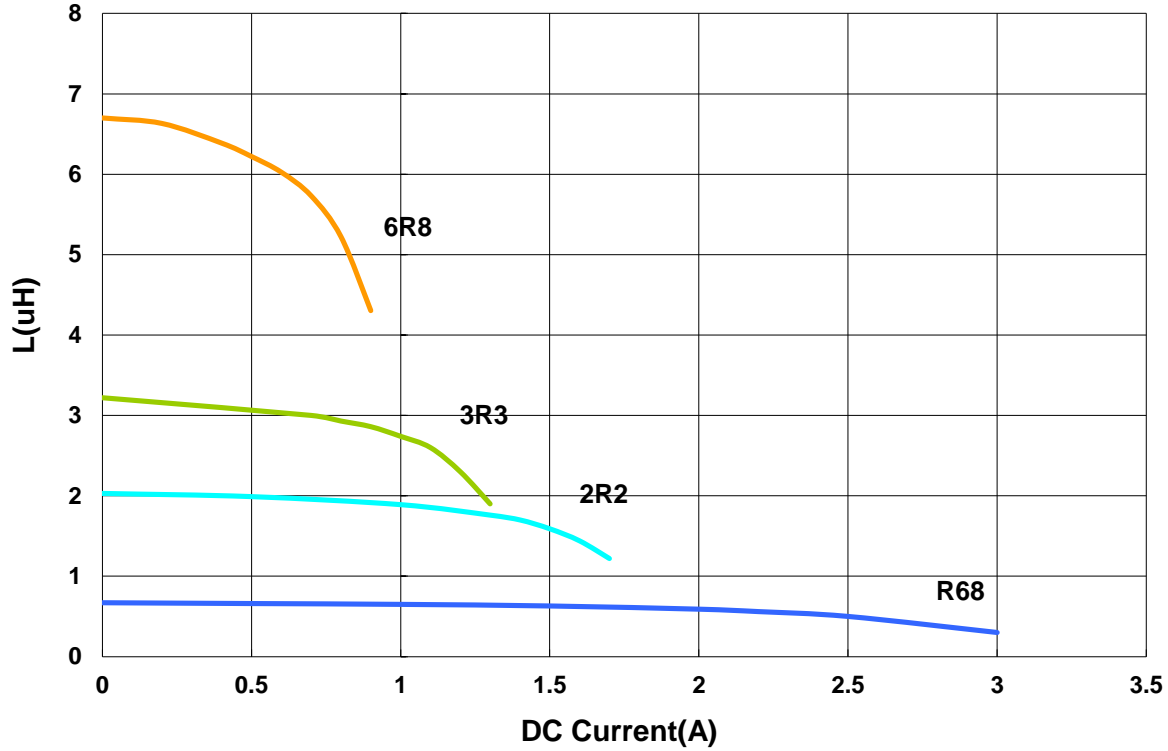
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current.
3. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I<sub>rms</sub>: Agilent HP4284A

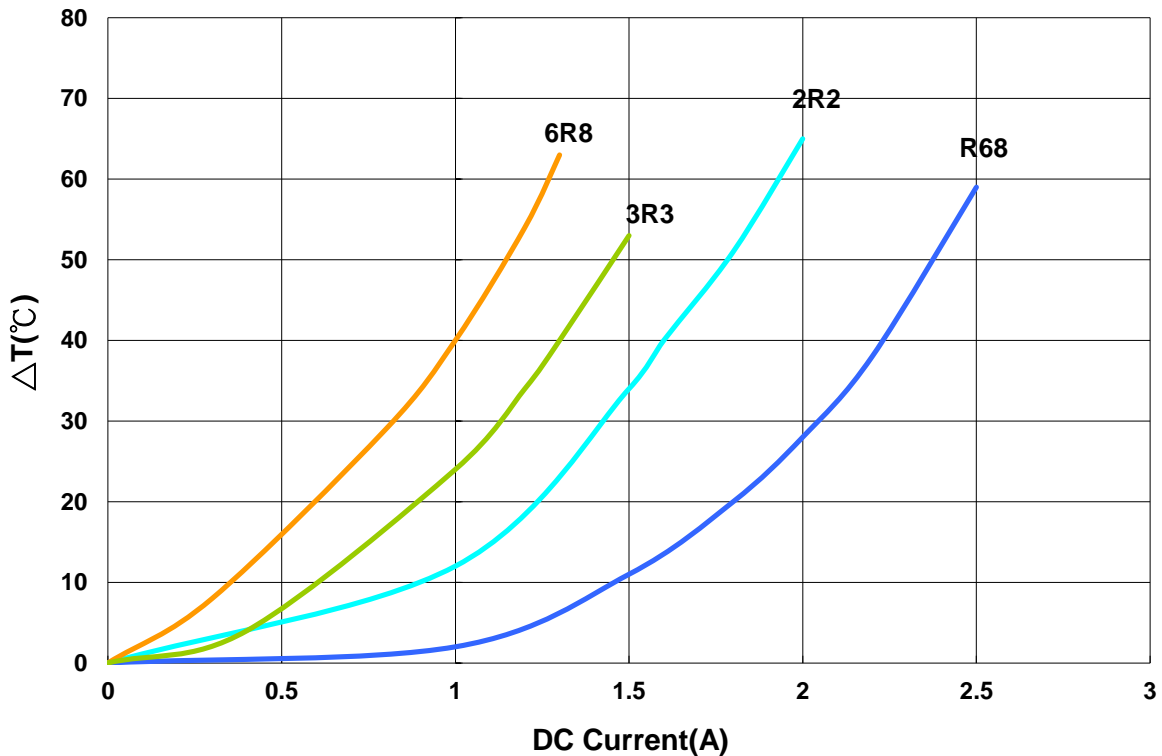
AWVT00252010 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

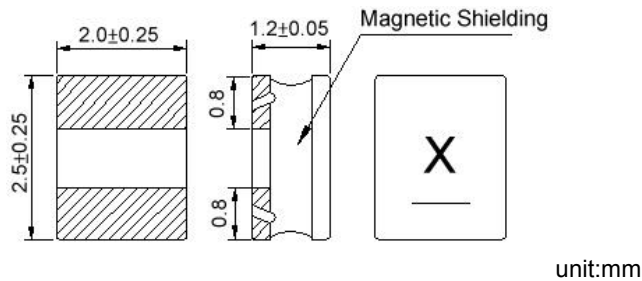


**Power Inductor AWVT Series**

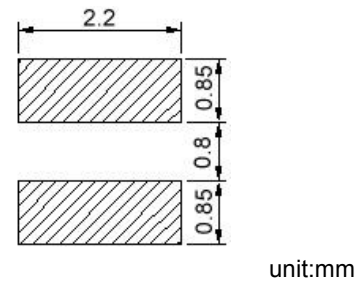
**Automotive  
AEC-Q200**

**AWVT00252012 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00252012R47□00	0.47	1MHz,200mV	0.027	3.70(3.30)	3.10(2.70)	20,30	A

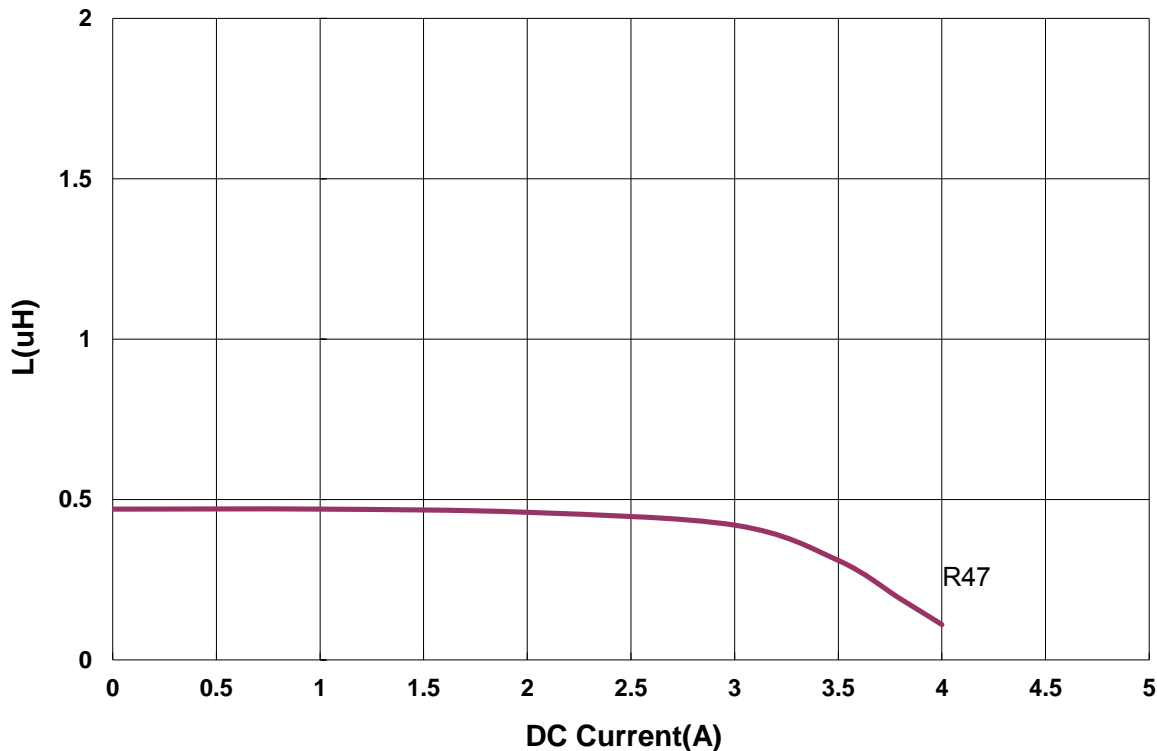
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

AWVT00252012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

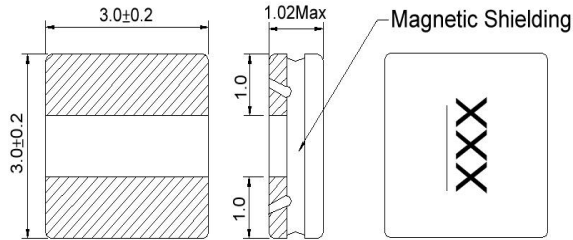


**Power Inductor AWVT Series**

**Automotive  
AEC-Q200**

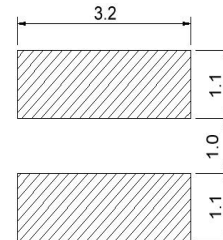
**AWVT00303010 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT003030101R0□00	1.0	1MHz,200mV	0.063	2.40(2.10)	2.30(2.00)	20,30	1R0
AWVT003030103R3□00	3.3	1MHz,200mV	0.165	1.20(1.00)	1.10(0.99)	20,30	3R3

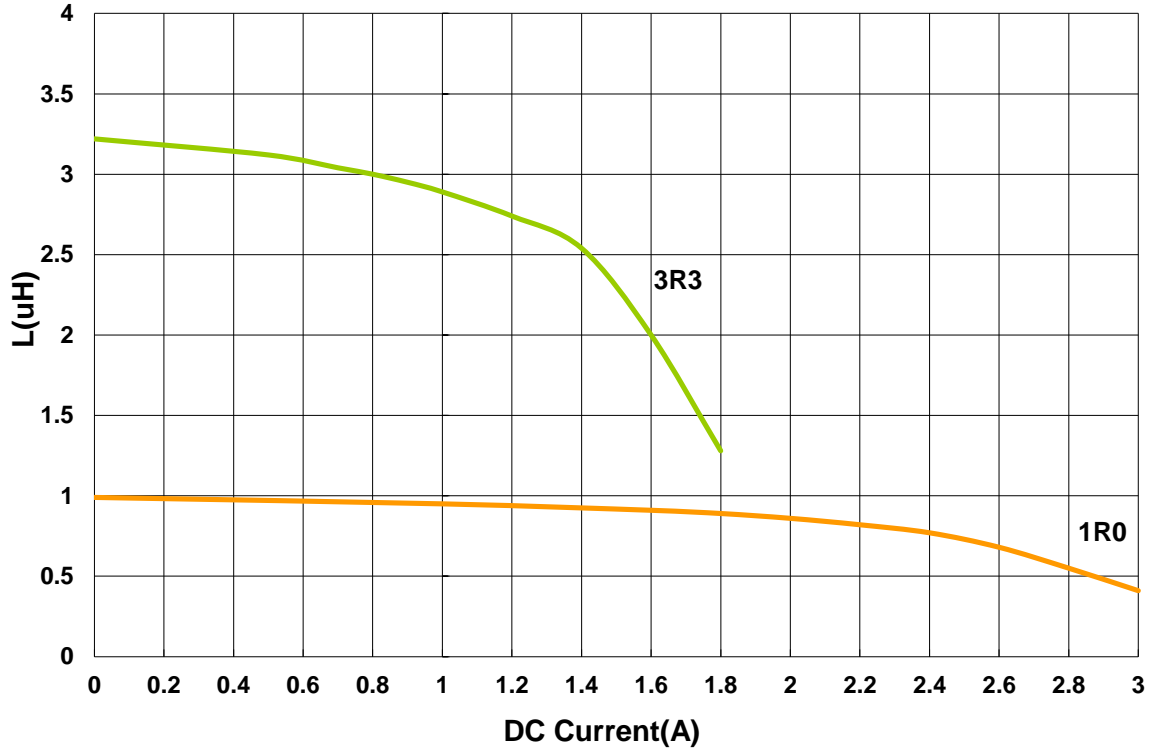
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current.
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

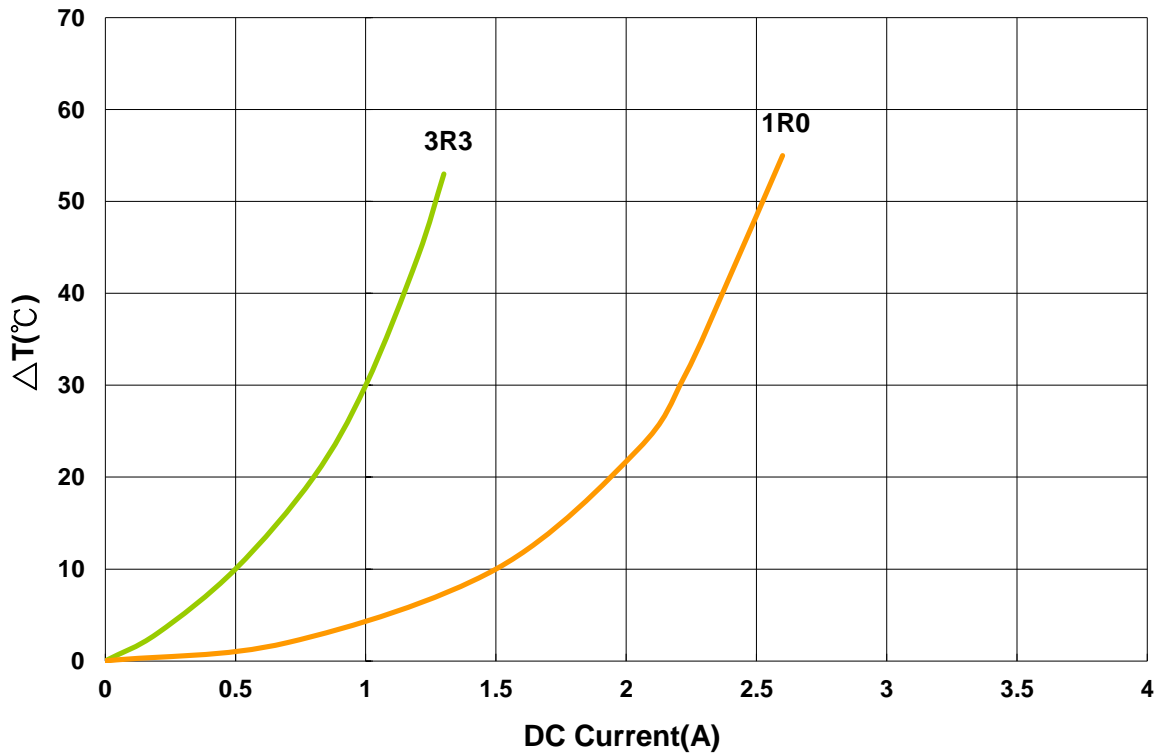
AWVT00303010 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



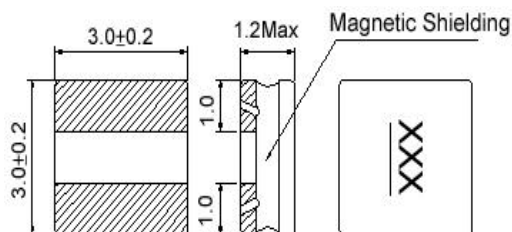


**Power Inductor AWT Series**

**Automotive  
AEC-Q200**

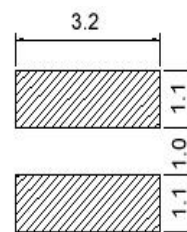
**AWVT00303012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00303012R47□00	0.47	1MHz,200mV	0.032	4.3(3.87)	4.0(3.60)	20,30	R47
AWVT003030121R0□00	1	1MHz,200mV	0.06	3.1(2.79)	3.0(2.70)	20,30	1R0
AWVT003030121R5□00	1.5	1MHz,200mV	0.072	2.7(2.43)	2.6(2.34)	20,30	1R5

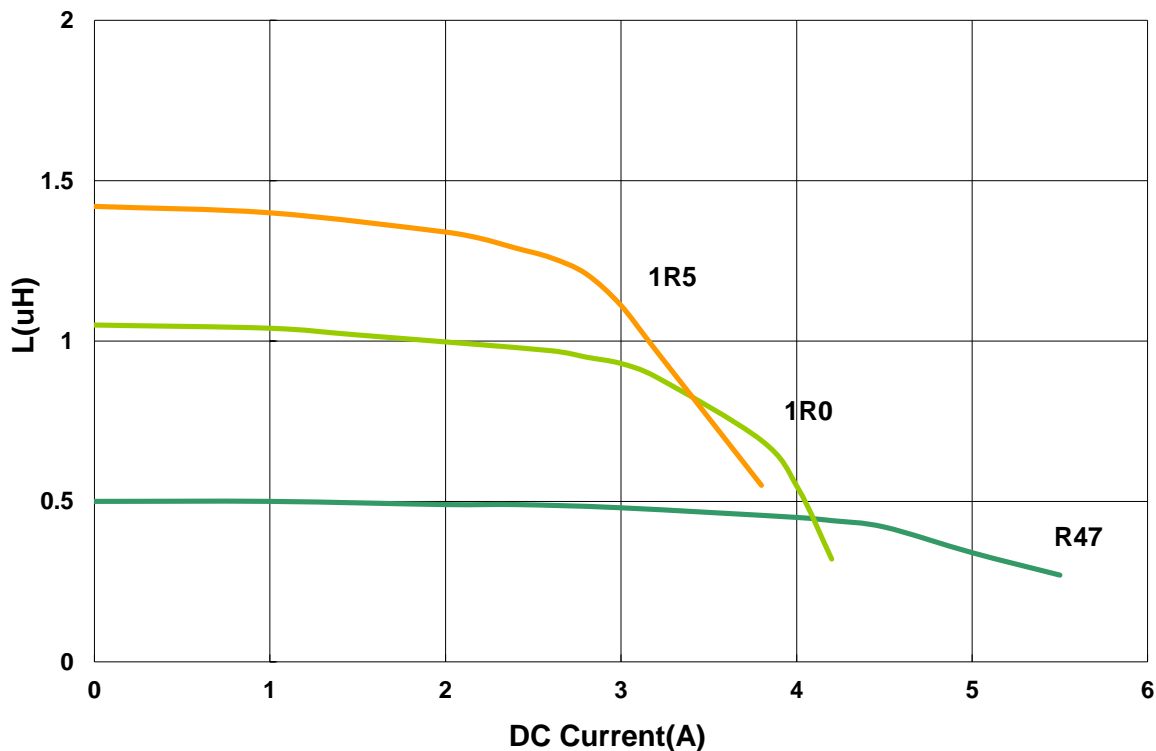
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current.
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

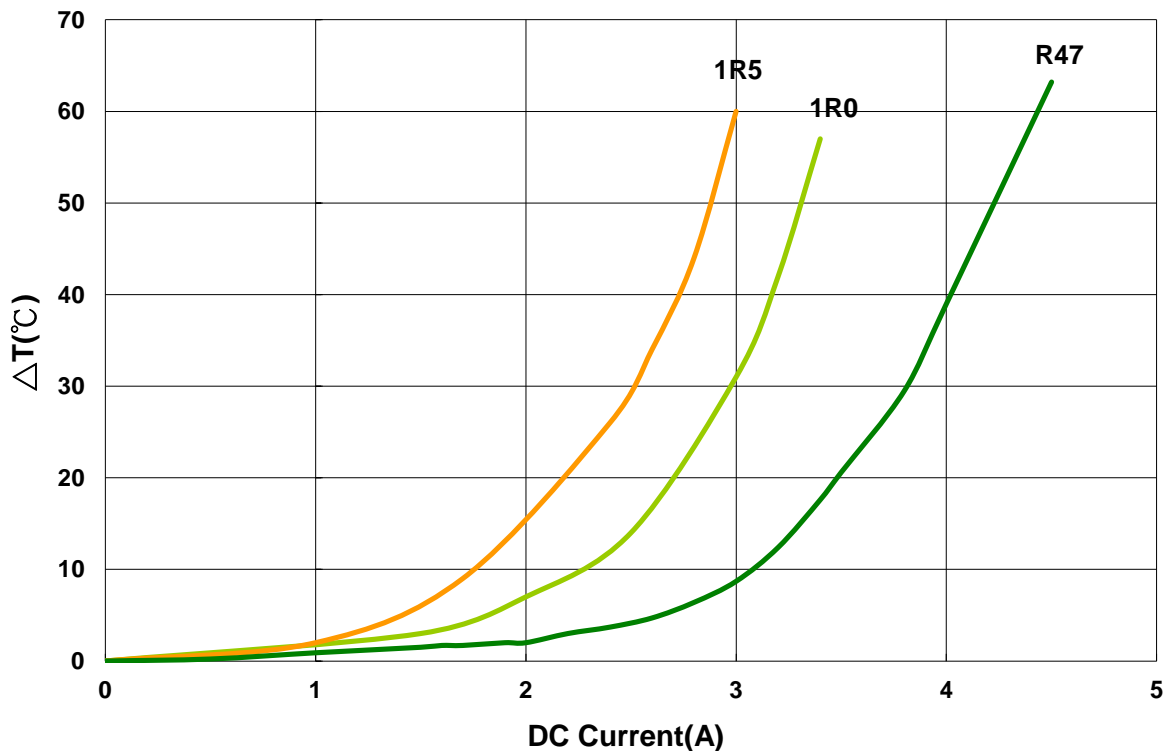
AWVT00303012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

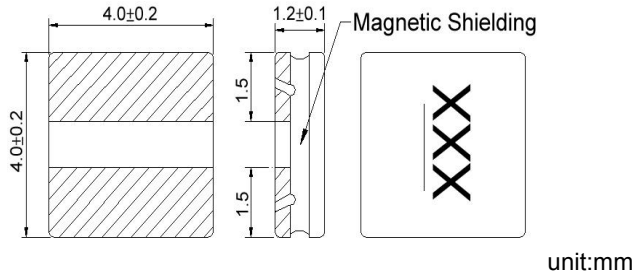


**Power Inductor AWT Series**

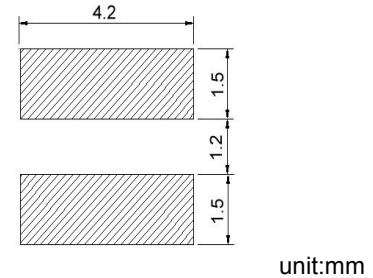
**Automotive  
AEC-Q200**

**AWVT00404012 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00404012R50□00	0.5	1MHz,200mV	0.030	3.90(3.50)	3.5(3.10)	20,30	R50
AWVT004040121R0□00	1.0	1MHz,200mV	0.040	2.90(2.60)	3.0(2.70)	20,30	1R0
AWVT004040121R5□00	1.5	1MHz,200mV	0.051	2.30(2.00)	2.5(2.20)	20,30	1R5
AWVT004040122R2□00	2.2	1MHz,200mV	0.060	1.90(1.70)	2.3(2.00)	20,30	2R2
AWVT004040124R7□00	4.7	1MHz,200mV	0.094	1.30(1.10)	1.8(1.60)	20,30	4R7
AWVT004040126R8□00	6.8	1MHz,200mV	0.135	1.00(0.95)	1.5(1.30)	20,30	6R8
AWVT00404012150□00	15	1MHz,200mV	0.260	0.78(0.70)	1.0(0.90)	20,30	150
AWVT00404012220□00	22	1MHz,200mV	0.390	0.62(0.55)	0.8(0.72)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

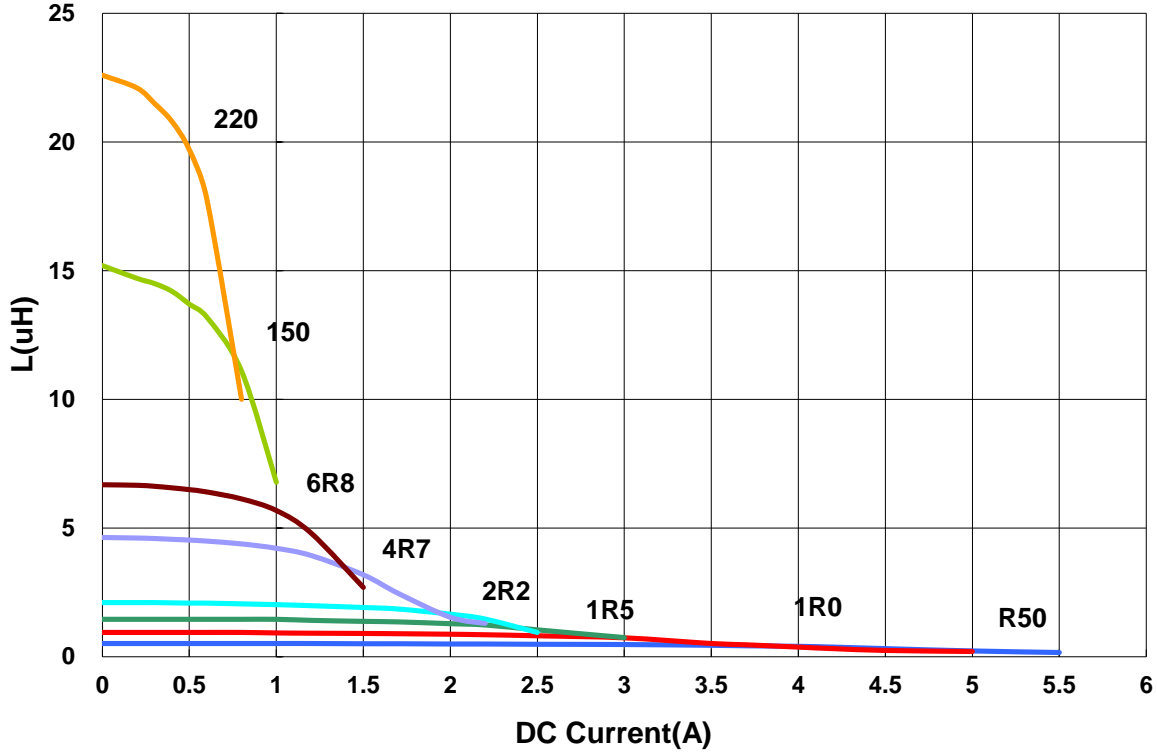
**Power Inductor AWVT Series**

**Automotive  
AEC-Q200**

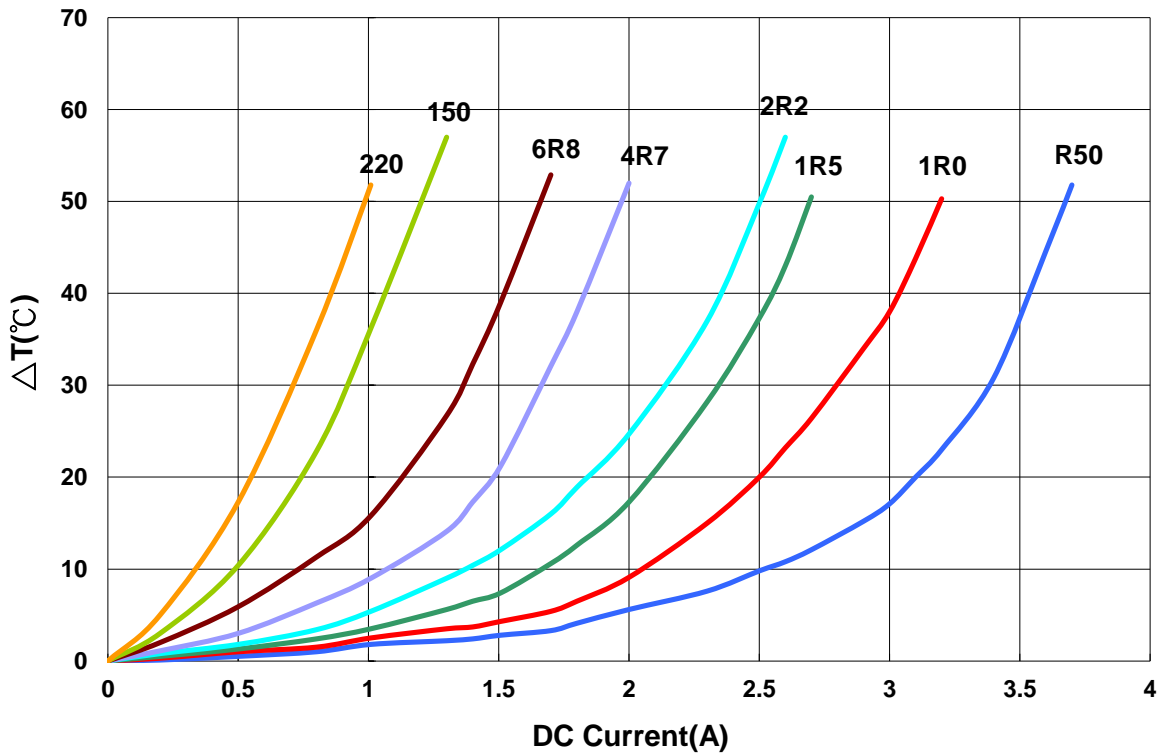
**AWVT00404012 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

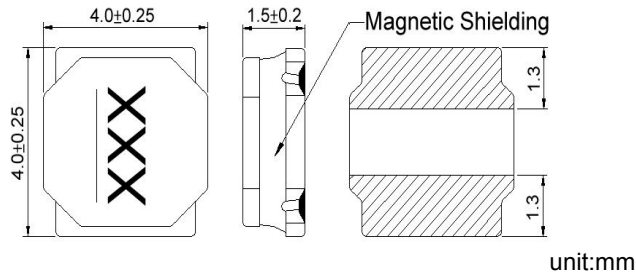


**Power Inductor AWVT Series**

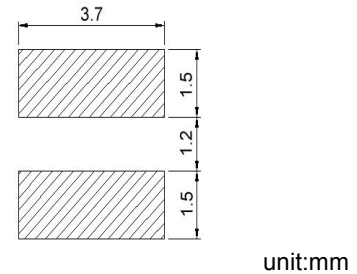
**Automotive  
AEC-Q200**

**AWVT00404015 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT004040151R0□00	1.0	1MHz,200mV	0.034	3.6(3.20)	3.7(3.30)	20,30	1R0
AWVT004040153R3□00	3.3	1MHz,200mV	0.080	2.0(1.80)	2.2(1.90)	20,30	3R3

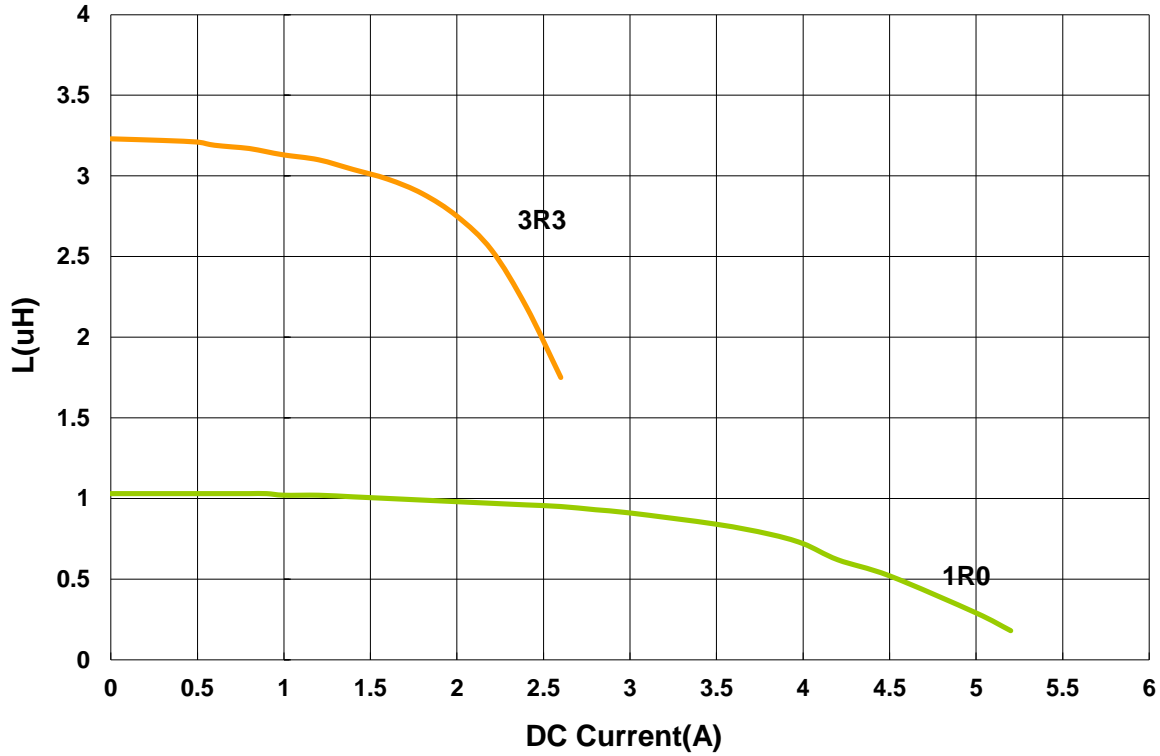
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

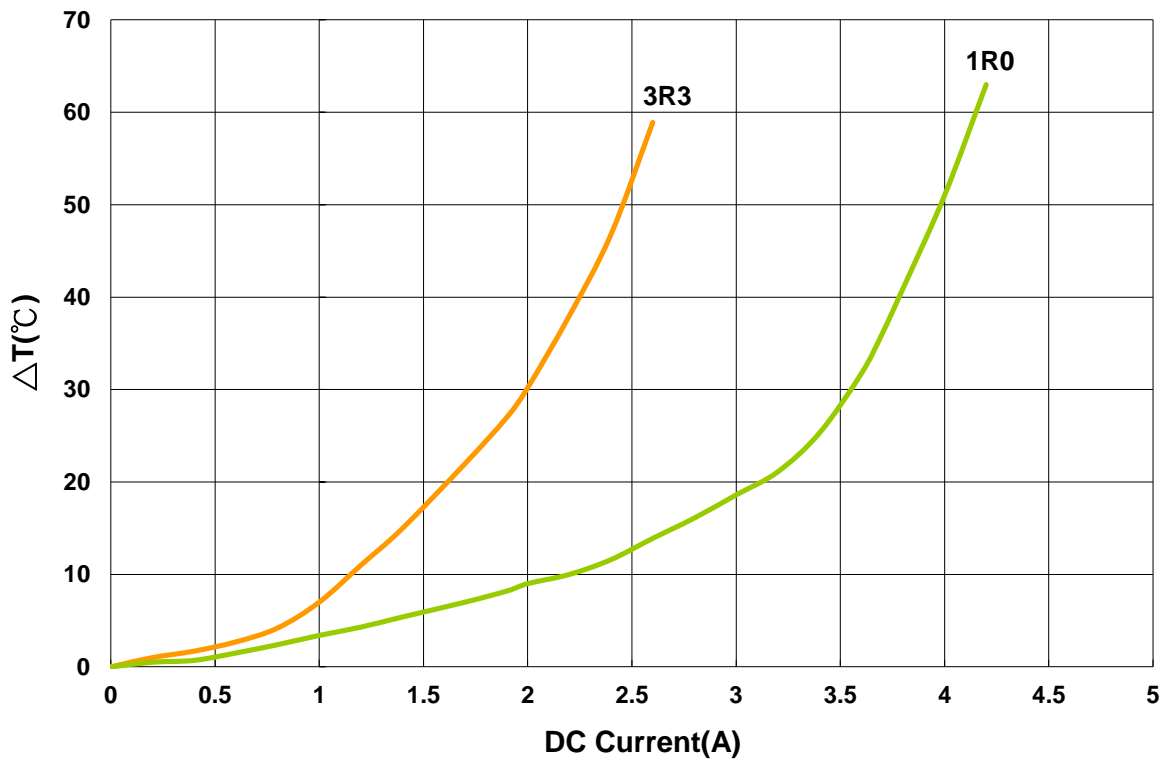
AWVT00404015 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

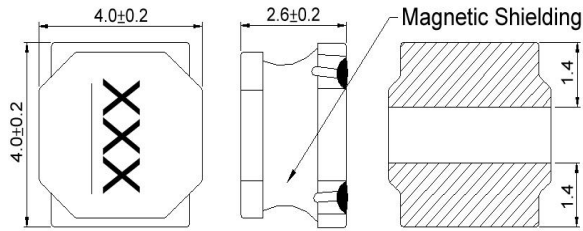


**Power Inductor AWT Series**

**Automotive  
AEC-Q200**

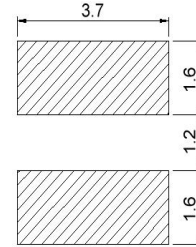
**AWVT00404026 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00404026R47□00	0.47	100kHz,1V	0.024	7.20(6.4)	4.80(4.3)	20,30	R47
AWVT00404026R50□00	0.50	100kHz,1V	0.024	7.20(6.4)	4.80(4.3)	20,30	R50

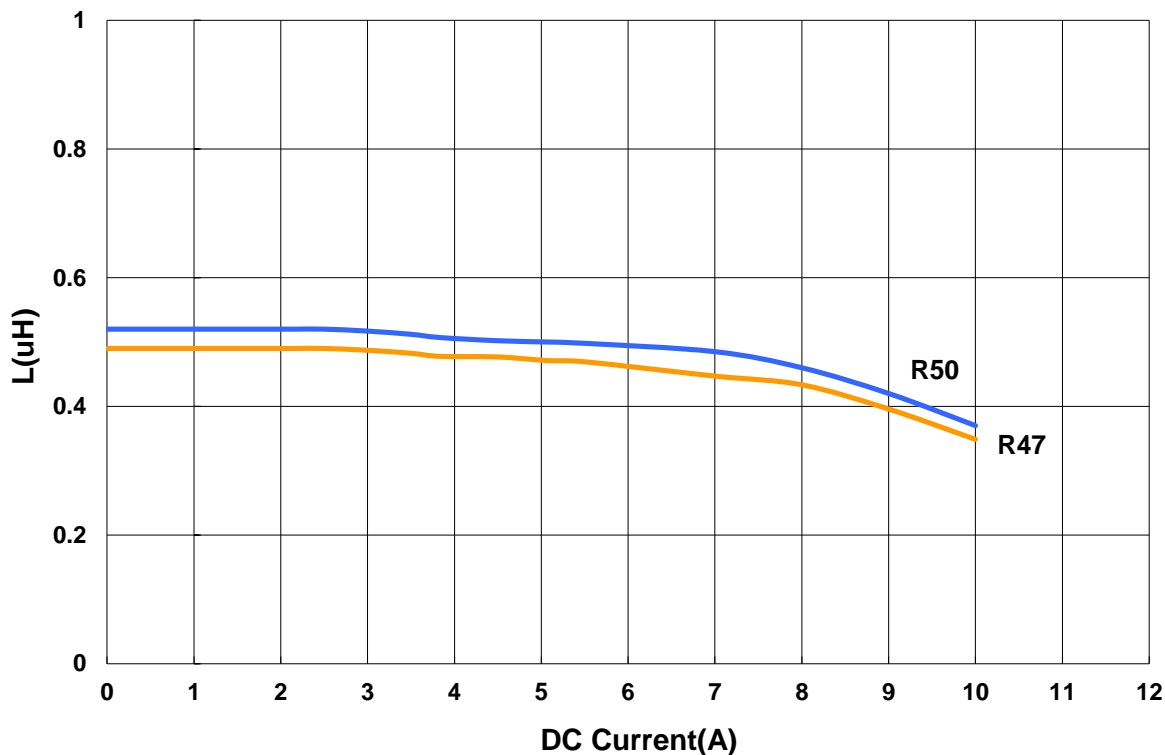
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

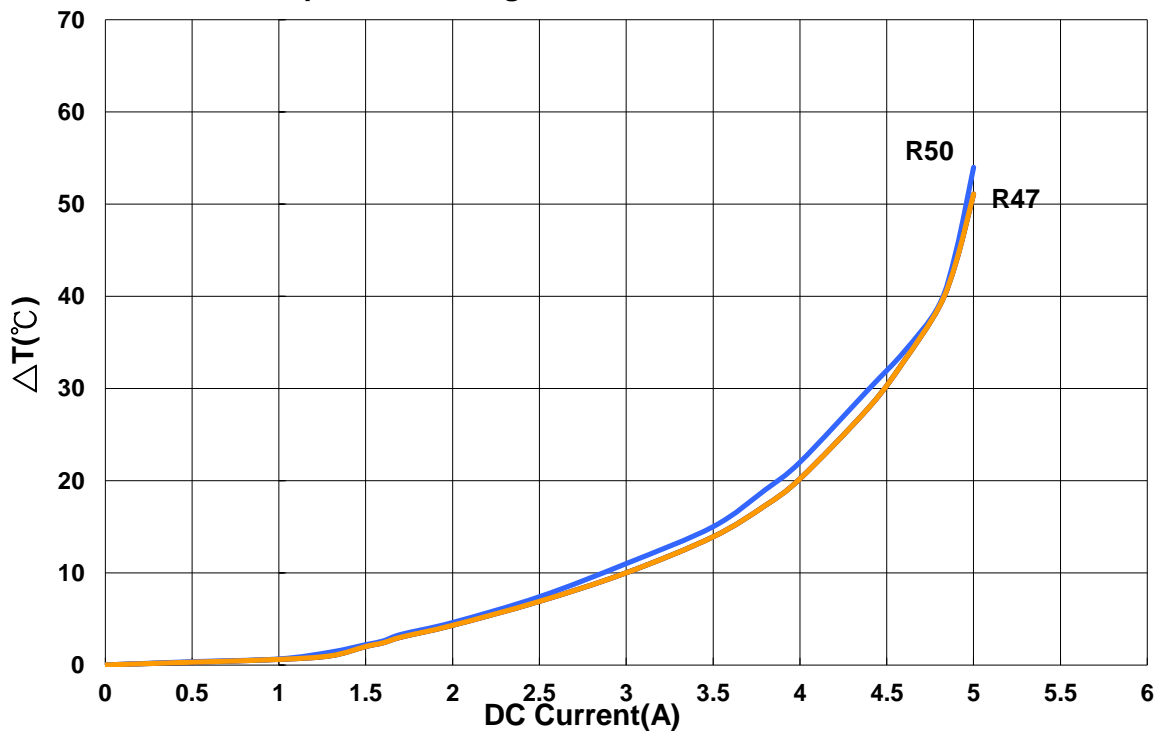
AWVT00404026 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



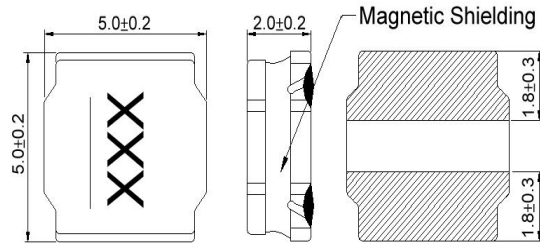


**Power Inductor AWVT Series**

**Automotive  
AEC-Q200**

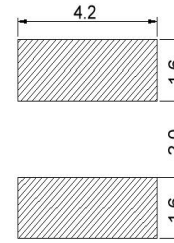
**AWVT00505020 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT00505020R47□00	0.47	100kHz,1V	0.0135	8.0(7.2)	5.5(5.0)	20,30	R47
AWVT005050203R3□00	3.3	100kHz,1V	0.050	3.4(3.00)	2.7(2.40)	20,30	3R3

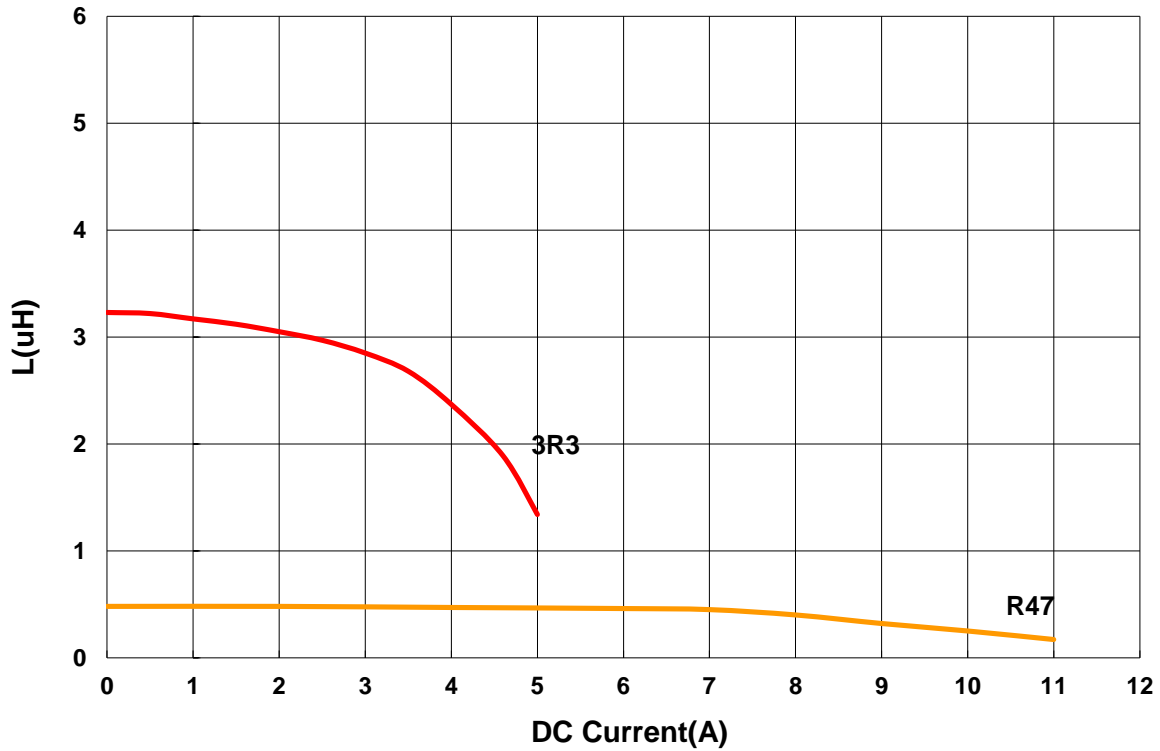
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

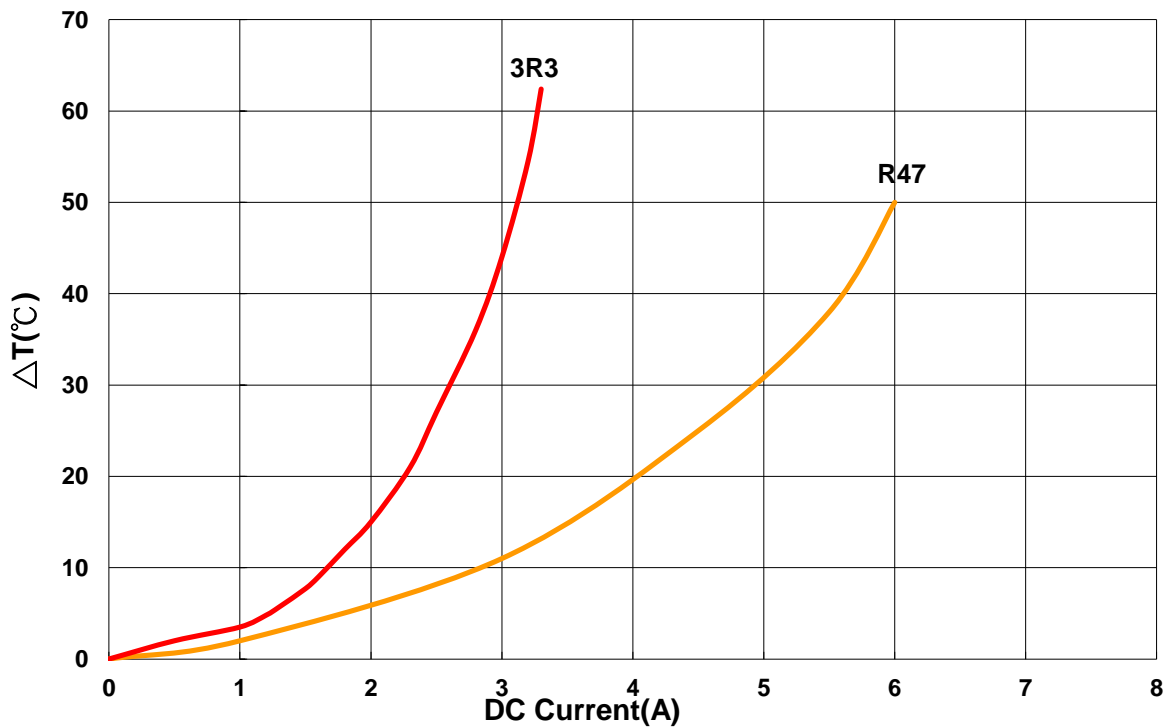
AWVT00505020 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

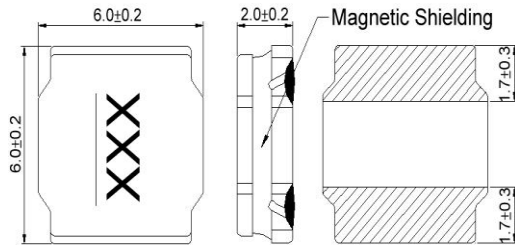


**Power Inductor AWT Series**

**Automotive  
AEC-Q200**

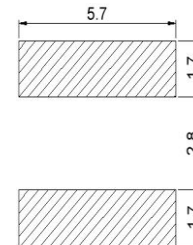
**AWVT00606020 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT006060201R0□00	1.0	100kHz,1V	0.019	6.4(5.70)	4.2(3.70)	20,30	1R0
AWVT006060201R5□00	1.5	100kHz,1V	0.026	5.4(4.80)	3.7(3.30)	20,30	1R5
AWVT006060202R2□00	2.2	100kHz,1V	0.034	4.5(4.00)	3.3(2.90)	20,30	2R2
AWVT006060203R3□00	3.3	100kHz,1V	0.045	3.6(3.20)	2.8(2.50)	20,30	3R3
AWVT006060206R8□00	6.8	100kHz,1V	0.085	2.6(2.30)	1.9(1.70)	20,30	6R8

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

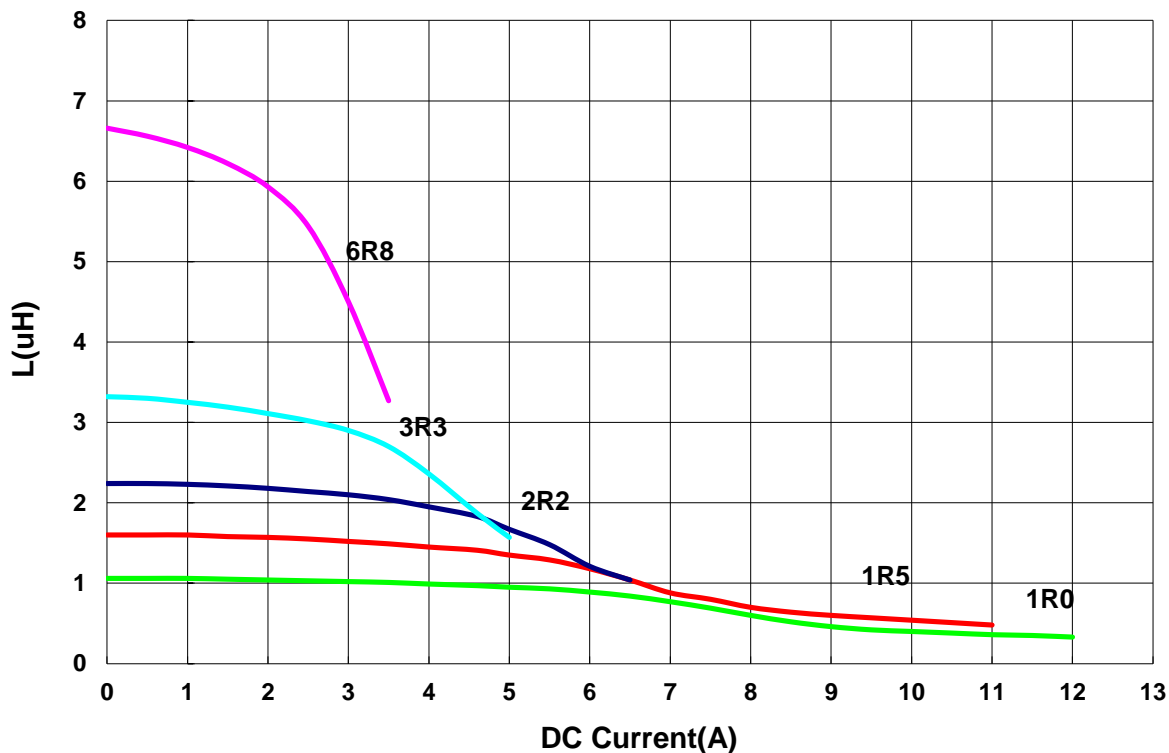
**Power Inductor AWT Series**

**Automotive  
AEC-Q200**

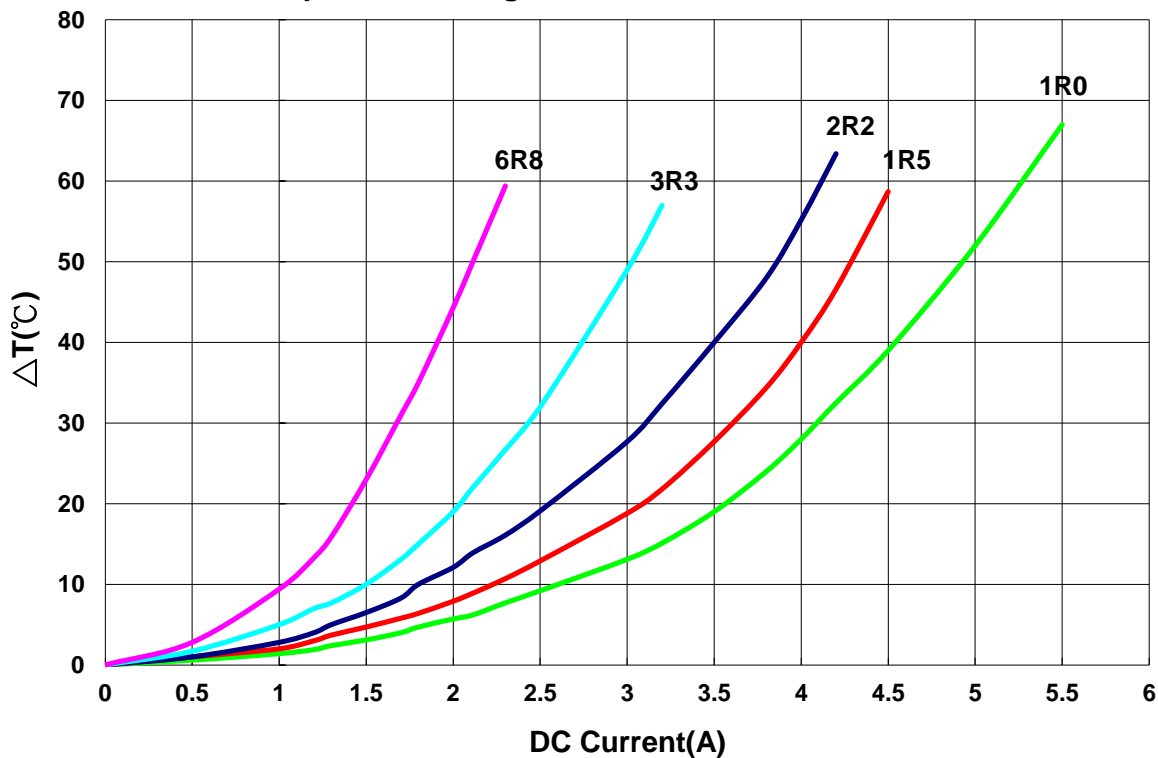
**AWVT00606020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

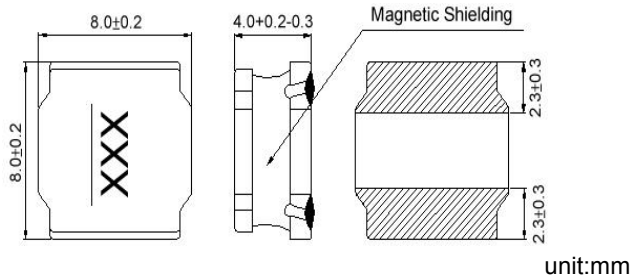


**Power Inductor AWT Series**

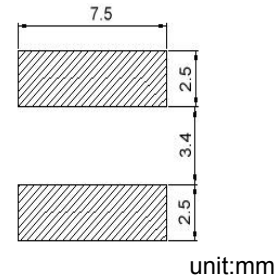
**Automotive  
AEC-Q200**

**AWVT00808040 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT008080401R0□00	1.0	100kHz,1V	0.0075	13.5(12.00)	8.1(7.10)	20,30	1R0
AWVT008080401R5□00	1.5	100kHz,1V	0.0097	10.5(9.30)	7.7(6.80)	20,30	1R5
AWVT008080402R2□00	2.2	100kHz,1V	0.0120	9.7(8.60)	7.2(6.30)	20,30	2R2
AWVT008080403R3□00	3.3	100kHz,1V	0.0170	8.0(7.10)	5.9(5.20)	20,30	3R3
AWVT008080406R8□00	6.8	100kHz,1V	0.0290	5.8(5.10)	4.9(4.30)	20,30	6R8

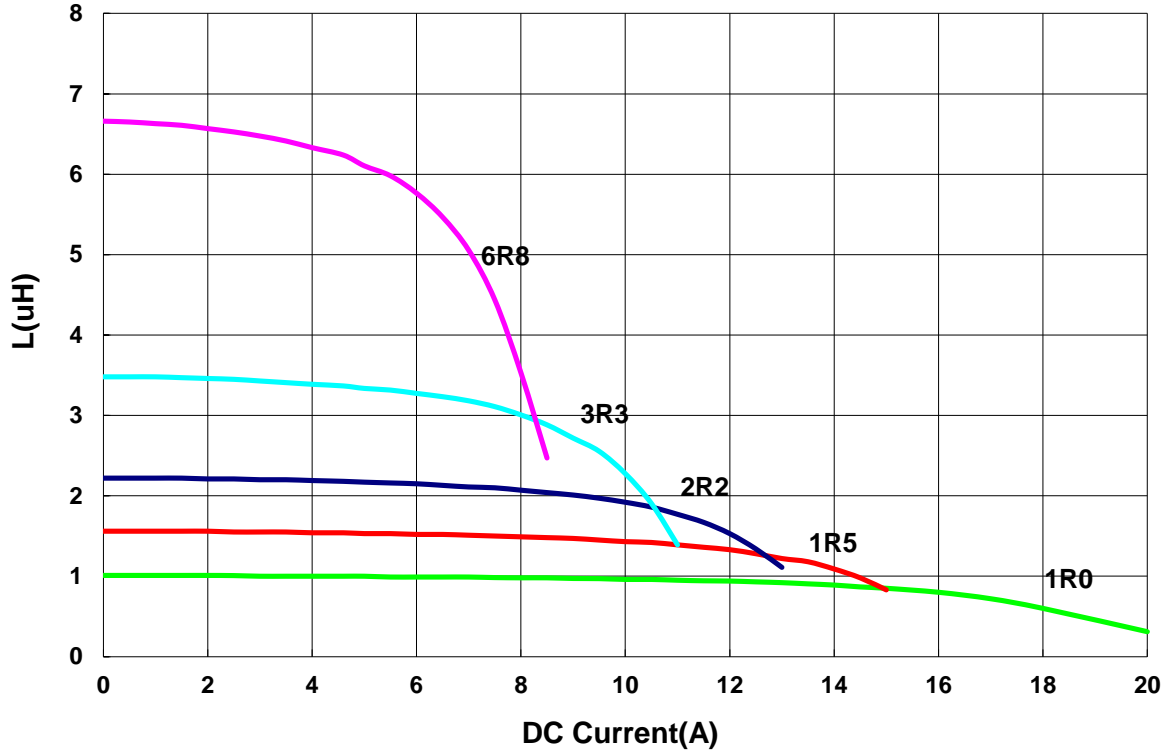
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

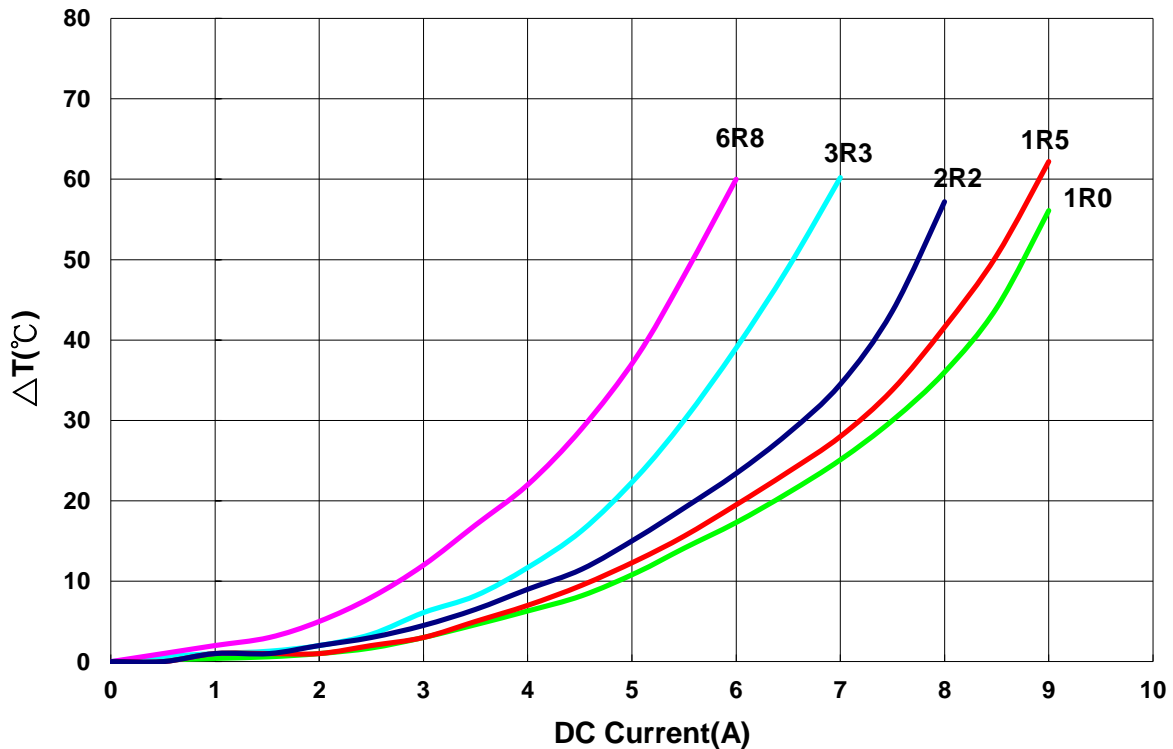
AWVT00808040 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

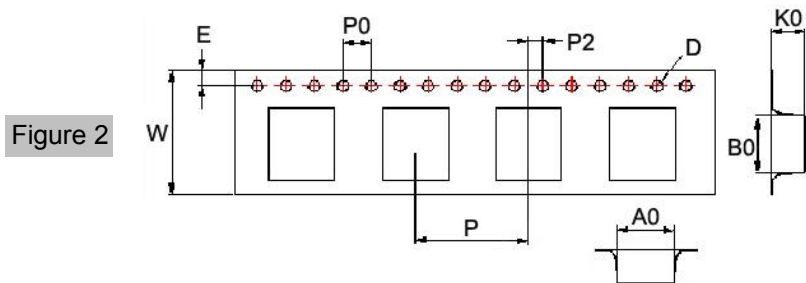
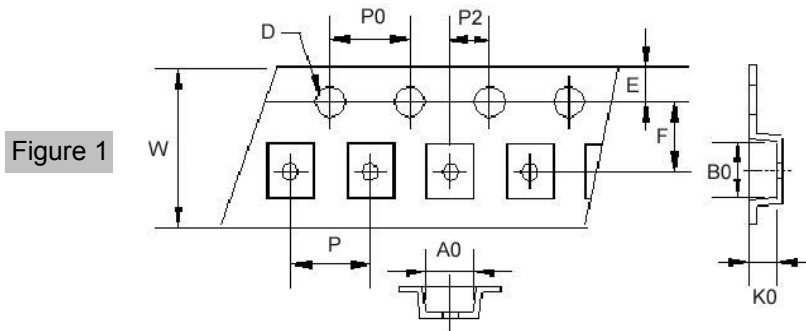


**Power Inductor AWVT Series**

**Automotive  
AEC-Q200**

**■ Packaging**

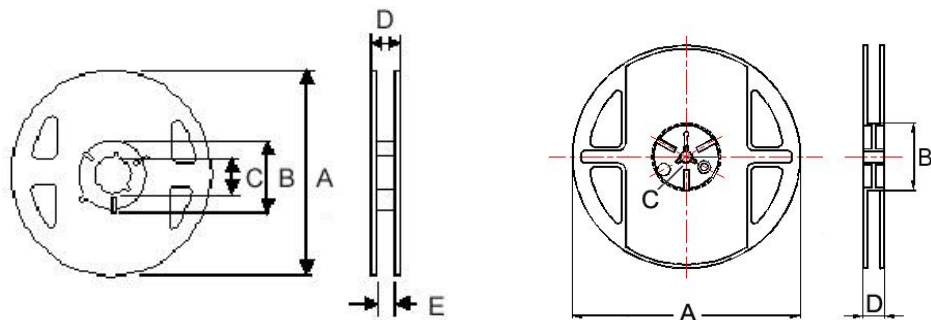
Tape Dimensions



Reel Dimensions

Figure 1

Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
AWVT00201610	1	1.9	2.2	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVT00252010	1	2.4	2.7	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVT00252012	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVT00303010	1	3.2	3.2	1.4	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVT00303012	1	3.2	3.2	1.4	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVT00404012	2	4.25	4.25	1.3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
AWVT00404015	2	4.25	4.25	1.7	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
AWVT00404026	2	4.25	4.25	3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500
AWVT00505020	2	5.25	5.25	2.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	2000
AWVT00606020	2	6.25	6.25	2.2	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	2000
AWVT00808040	2	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	17.4	-	1000

**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



**Part Numbering**

A	WVC	00	252012	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			201610 2.0x1.6x1.0	R47 0.47	M ±20%	
			201612 2.0x1.6x1.2	1R0 1.0	T ±30%	
			252012 2.5x2.0x1.2	101 100		
			404018 4.0x4.0x1.9			
			505040 5.0x5.0x4.0			
			606028 6.0x6.0x2.8			
			606045 6.0x6.0x4.5			

This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

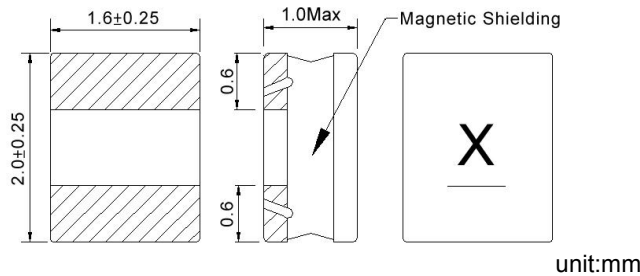


**Power Inductor AWVC Series**

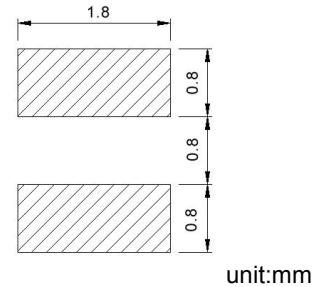
**Automotive  
AEC-Q200**

**AWVC00201610 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC00201610R24□00	0.24	1MHz,200mV	0.026	3.20(2.80)	3.00(2.70)	20,30	M
AWVC002016101R0□00	1.0	1MHz,200mV	0.095	1.80(1.60)	1.80(1.60)	20,30	B
AWVC002016101R5□00	1.5	1MHz,200mV	0.14	1.60(1.40)	1.60(1.40)	20,30	C
AWVC002016102R2□00	2.2	1MHz,200mV	0.19	1.30(1.10)	1.30(1.10)	20,30	D
AWVC002016103R3□00	3.3	1MHz,200mV	0.295	0.96(0.86)	0.98(0.88)	20,30	E
AWVC002016104R7□00	4.7	1MHz,200mV	0.36	0.84(0.75)	0.90(0.81)	20,30	F
AWVC002016106R8□00	6.8	1MHz,200mV	0.64	0.66(0.59)	0.70(0.63)	20,30	G
AWVC00201610100□00	10	1MHz,200mV	1.0	0.54(0.48)	0.56(0.50)	20,30	H
AWVC00201610150□00	15	1MHz,200mV	1.5	0.39(0.35)	0.42(0.37)	20,30	K
AWVC00201610180□00	18	1MHz,200mV	1.6	0.39(0.35)	0.41(0.36)	20,30	J
AWVC00201610220□00	22	1MHz,200mV	1.7	0.38(0.34)	0.40(0.36)	20,30	I

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

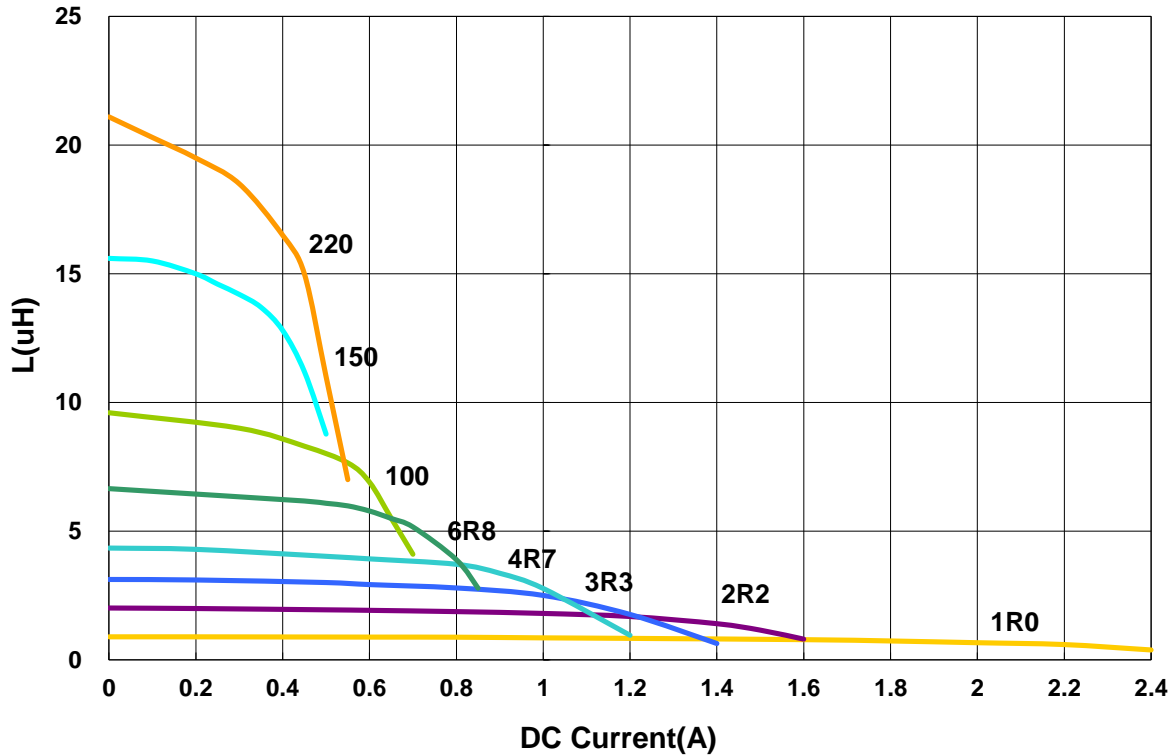
**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

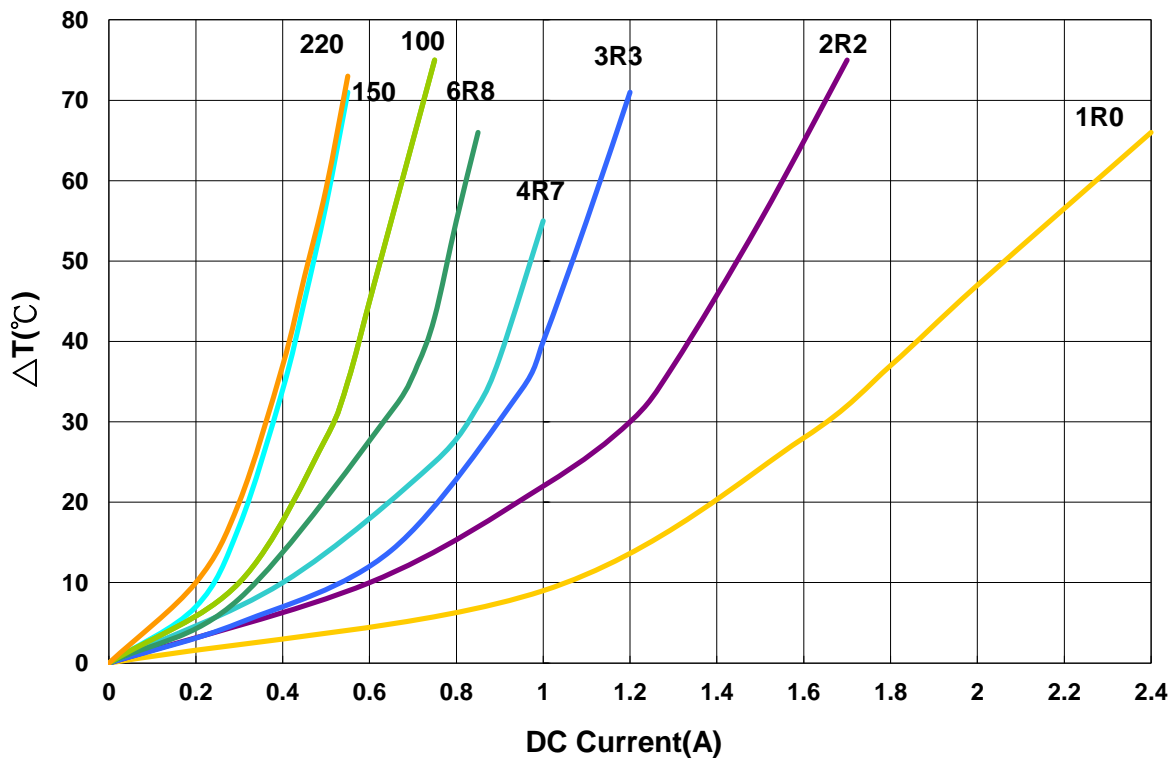
**AWVC00201610 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

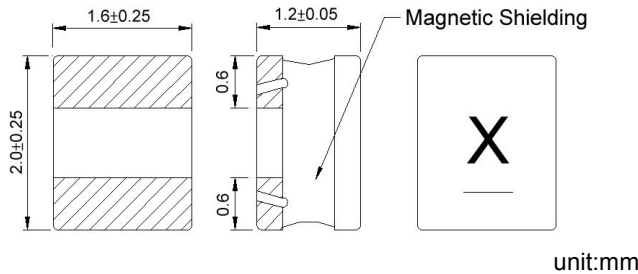


**Power Inductor AWVC Series**

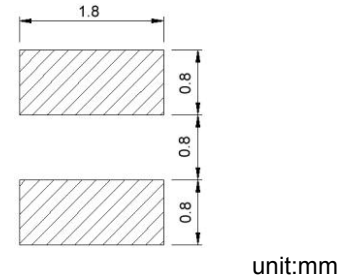
**Automotive  
AEC-Q200**

**AWVC00201612 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC00201612R50□00	0.5	1MHz,200mV	0.051	2.60(2.30)	2.30(2.00)	20,30	B
AWVC002016121R0□00	1.0	1MHz,200mV	0.083	1.90(1.70)	1.80(1.60)	20,30	C
AWVC002016122R2□00	2.2	1MHz,200mV	0.159	1.30(1.20)	1.30(1.20)	20,30	E
AWVC002016123R3□00	3.3	1MHz,200mV	0.22	1.10(0.99)	1.00(0.95)	20,30	F
AWVC002016124R7□00	4.7	1MHz,200mV	0.33	0.92(0.82)	0.90(0.81)	20,30	G
AWVC00201612100□00	10	1MHz,200mV	0.58	0.62(0.55)	0.58(0.52)	20,30	I
AWVC00201612150□00	15	1MHz,200mV	0.9	0.48(0.43)	0.45(0.40)	20,30	J
AWVC00201612220□00	22	1MHz,200mV	1.4	0.40(0.36)	0.40(0.36)	20,30	K

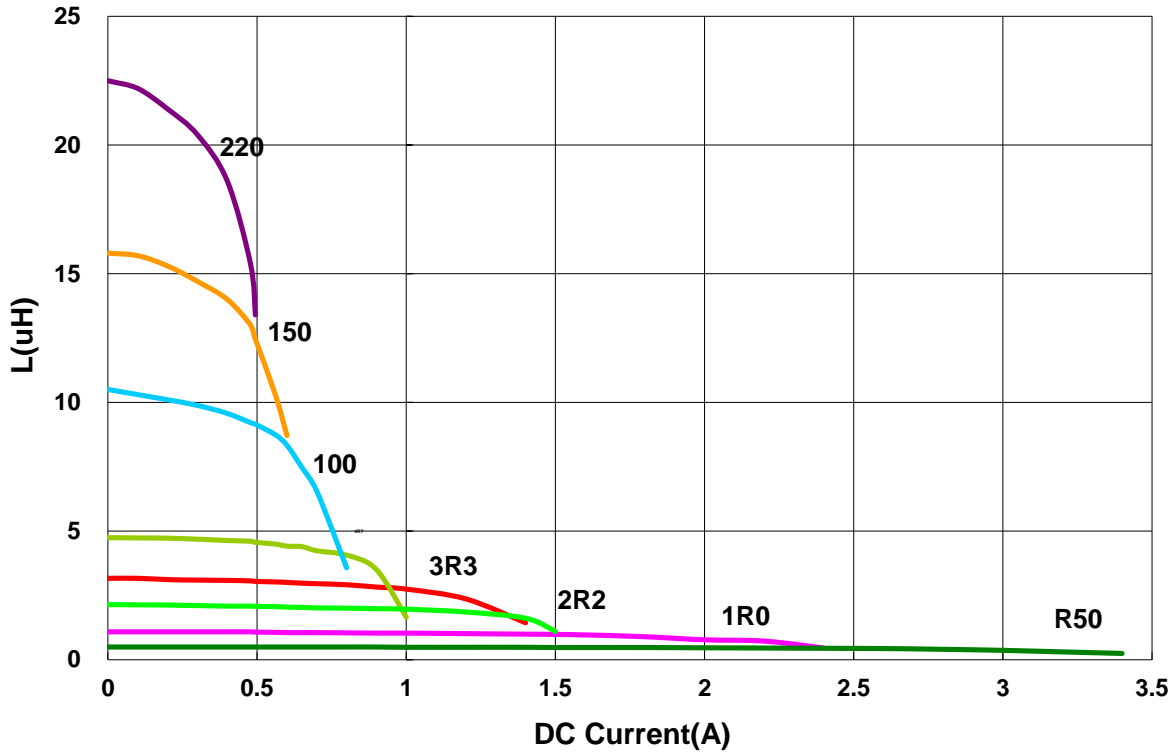
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

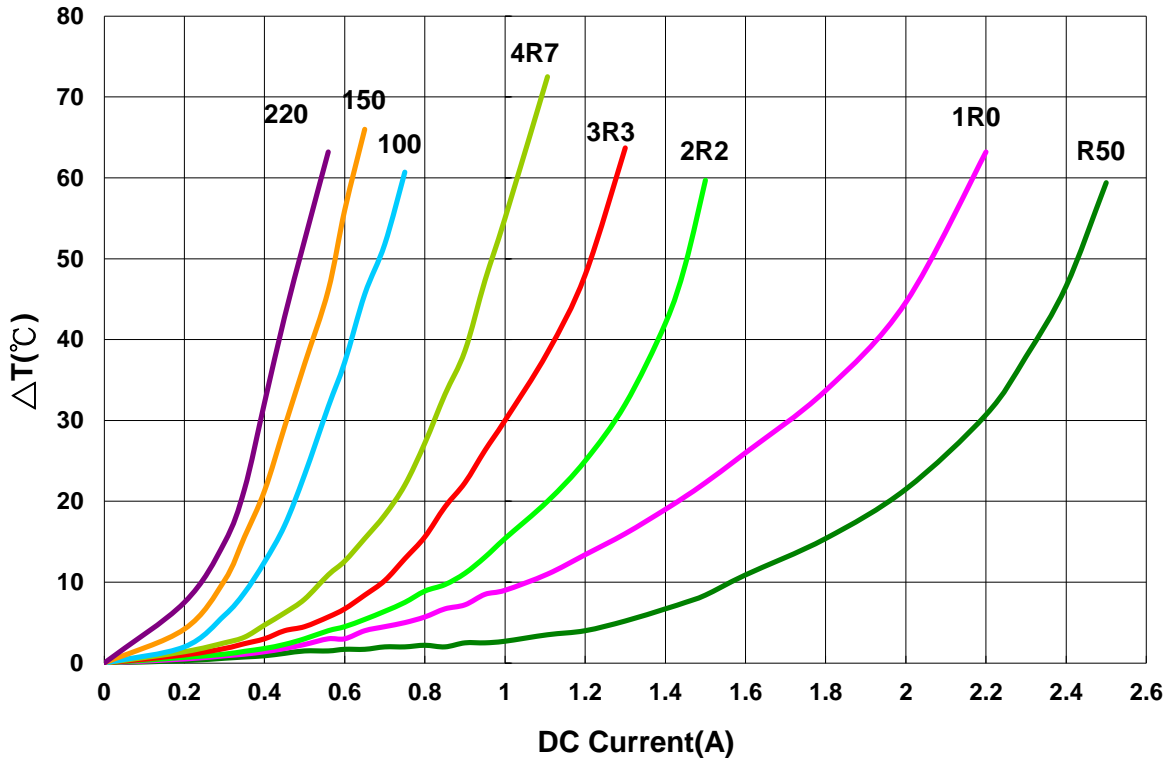
AWVC00201612 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

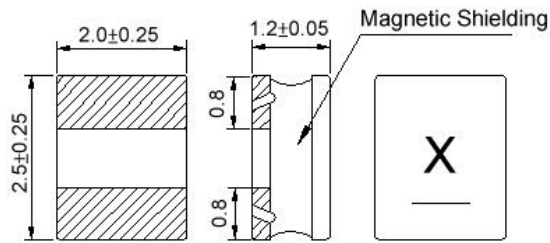


**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

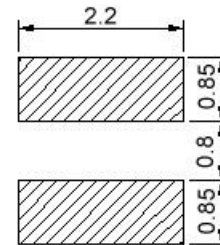
**AWVC00252012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC00252012R68□00	0.68	1MHz,200mV	0.035	2.80(2.50)	2.60(2.30)	20,30	N

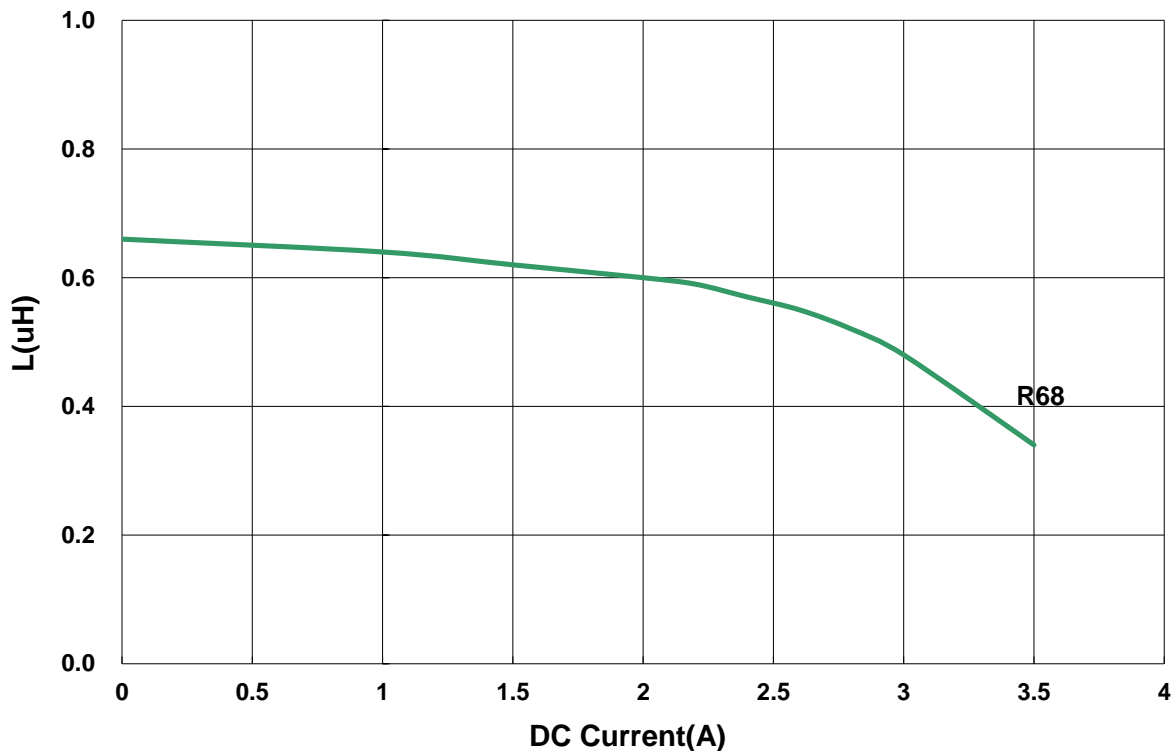
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
  - L: Agilent HP4287A+Agilent .HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

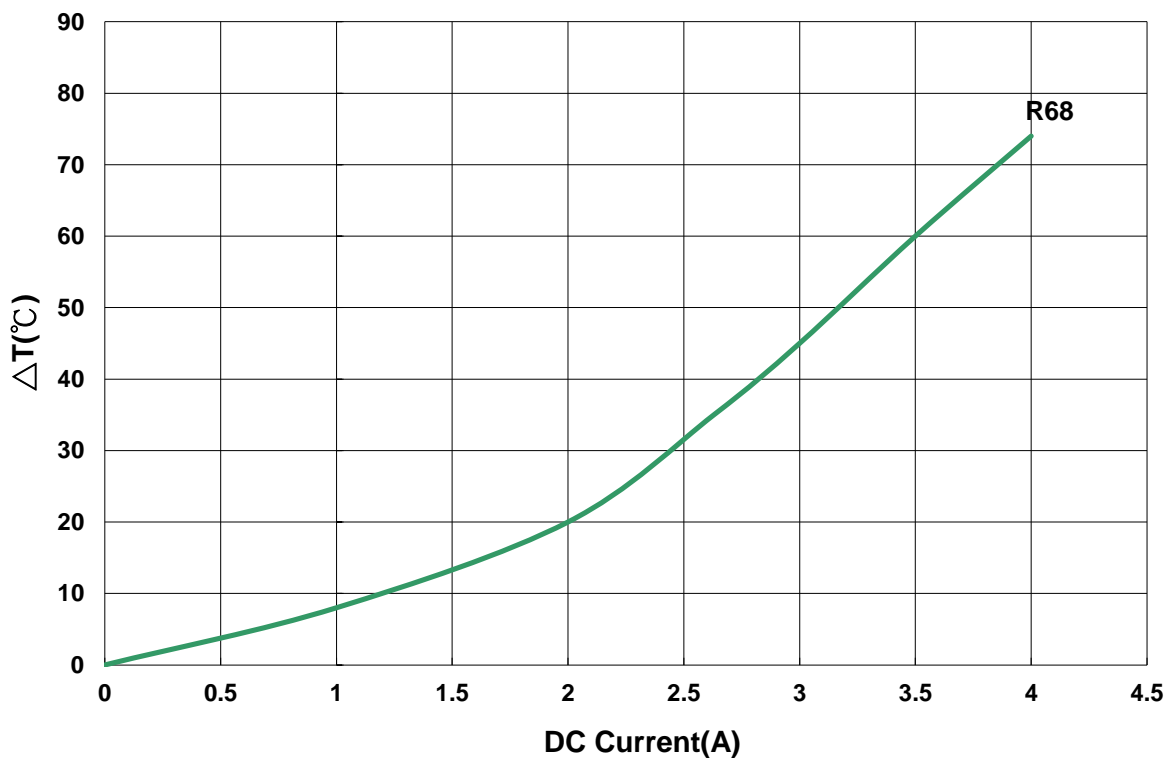
AWVC00252012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

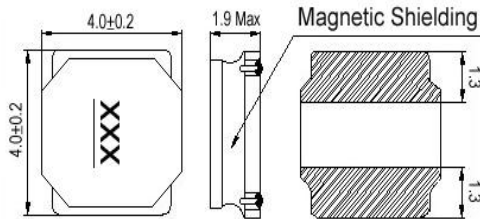


**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

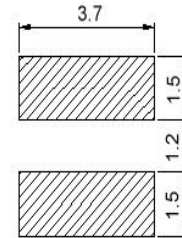
**AWVC00404018 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC004040181R2□00	1.2	100kHz,1V	0.027	3.70(3.30)	3.60(3.20)	20,30	1R2
AWVC004040184R7□00	4.7	100kHz,1V	0.077	2.00(1.80)	1.80(1.60)	20,30	4R7
AWVC004040186R8□00	6.8	100kHz,1V	0.105	1.50(1.30)	1.35(1.20)	20,30	6R8
AWVC00404018100□00	10	100kHz,1V	0.160	1.40(1.20)	1.20(1.00)	20,30	100
AWVC00404018150□00	15	100kHz,1V	0.245	1.05(0.94)	0.95(0.85)	20,30	150
AWVC00404018220□00	22	100kHz,1V	0.335	0.90(0.81)	0.88(0.79)	20,30	220

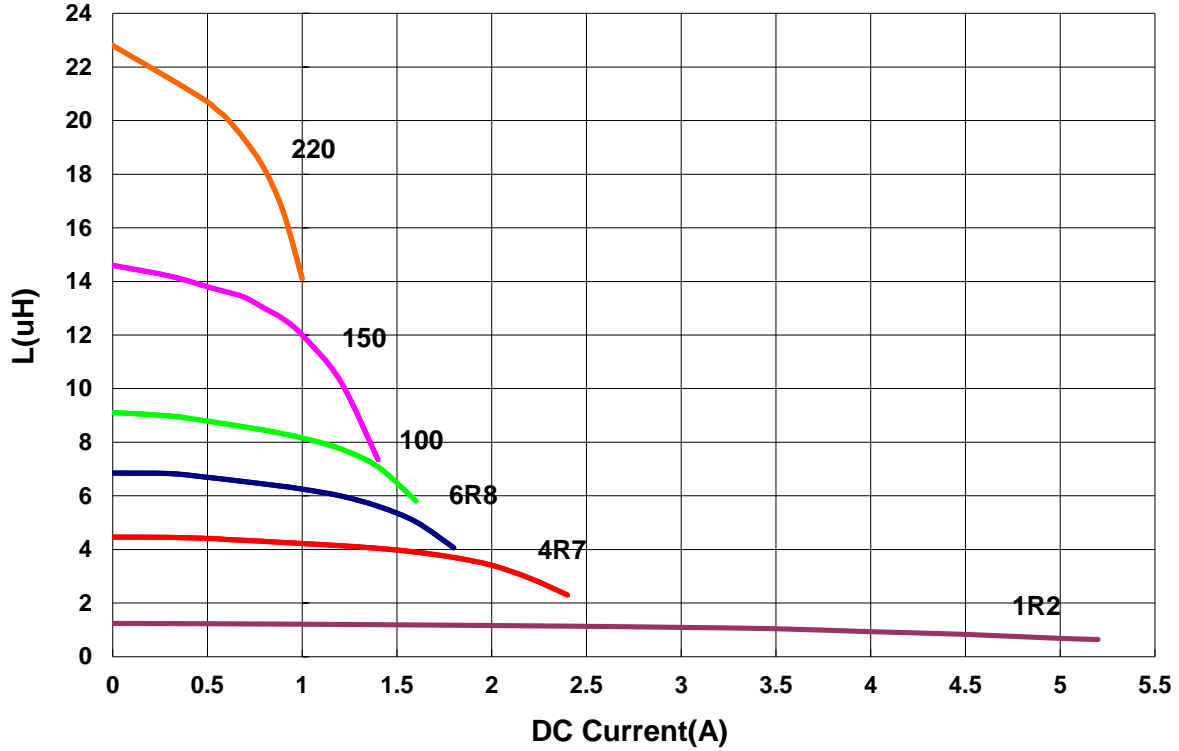
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I<sub>rms</sub>: Agilent HP4284A

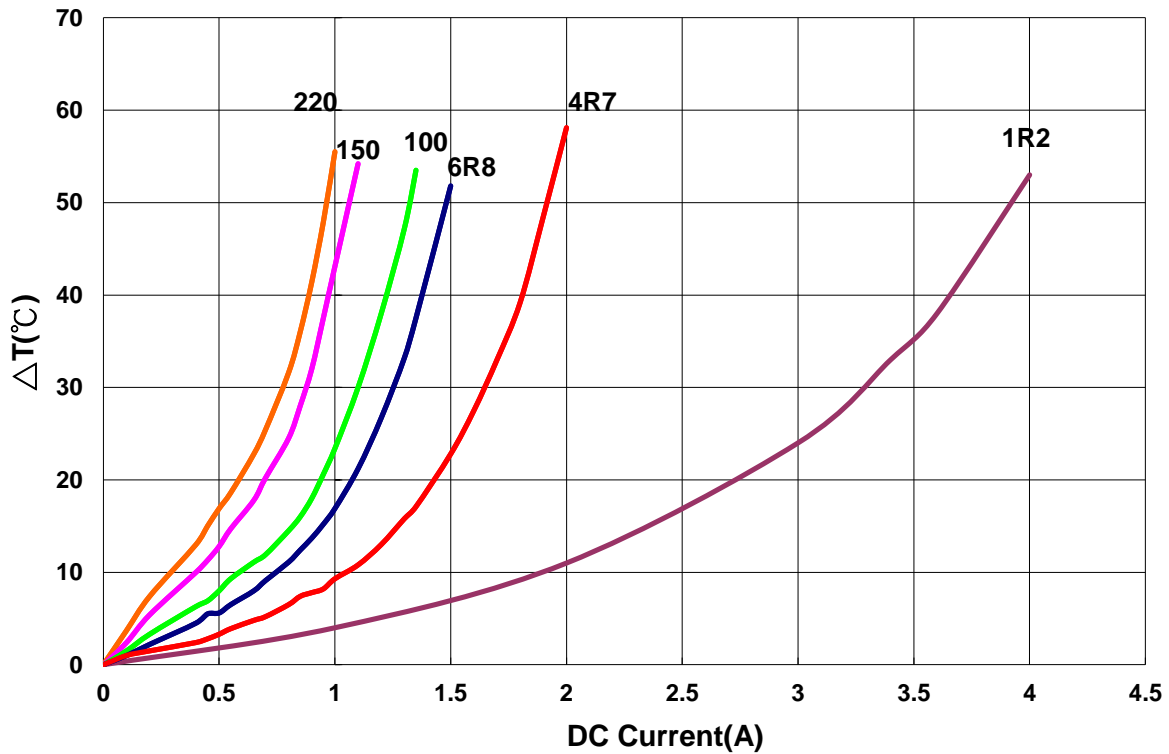
AWVC00404018 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



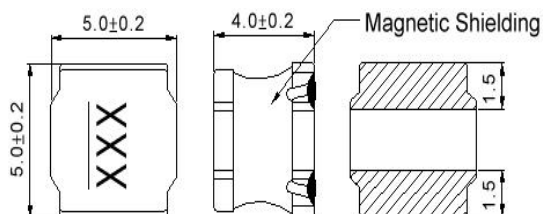


**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

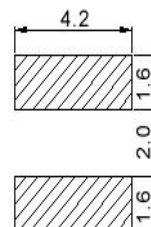
**AWVC00505040 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC005050401R0□00	1.0	100kHz,1V	0.012	8.8(7.9)	5.9(5.3)	20,30	1R0
AWVC005050401R5□00	1.5	100kHz,1V	0.014	7.9(7.1)	5.4(4.8)	20,30	1R5
AWVC005050402R2□00	2.2	100kHz,1V	0.020	6.8(6.1)	4.5(4.0)	20,30	2R2
AWVC005050402R7□00	2.7	100kHz,1V	0.026	6.0(5.4)	4.2(3.7)	20,30	2R7
AWVC005050403R3□00	3.3	100kHz,1V	0.026	5.3(4.7)	4.2(3.7)	20,30	3R3
AWVC005050404R7□00	4.7	100kHz,1V	0.032	4.4(3.9)	3.2(2.8)	20,30	4R7
AWVC005050406R8□00	6.8	100kHz,1V	0.050	3.8(3.4)	3.0(2.70)	20,30	6R8
AWVC00505040100□00	10	100kHz,1V	0.070	3.0(2.70)	2.3(2.0)	20,30	100
AWVC00505040150□00	15	100kHz,1V	0.115	2.4(2.1)	1.8(1.6)	20,30	150
AWVC00505040220□00	22	100kHz,1V	0.160	2.0(1.80)	1.6(1.4)	20,30	220
AWVC00505040151□00	150	100kHz,1V	1.180	0.74(0.66)	0.58(0.52)	20,30	151
AWVC00505040181□00	180	100kHz,1V	1.250	0.67(0.60)	0.54(0.48)	20,30	181
AWVC00505040221□00	220	100kHz,1V	1.450	0.65(0.58)	0.50(0.45)	20,30	221

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

I rms: Agilent HP4284A

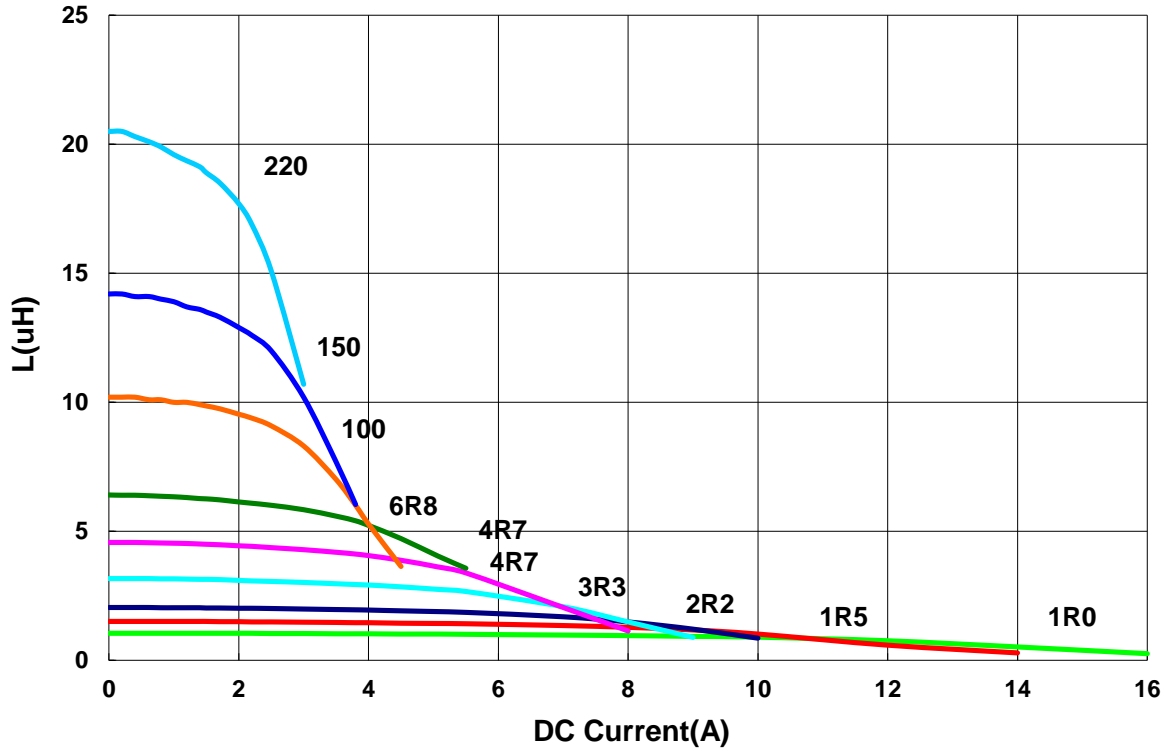
**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

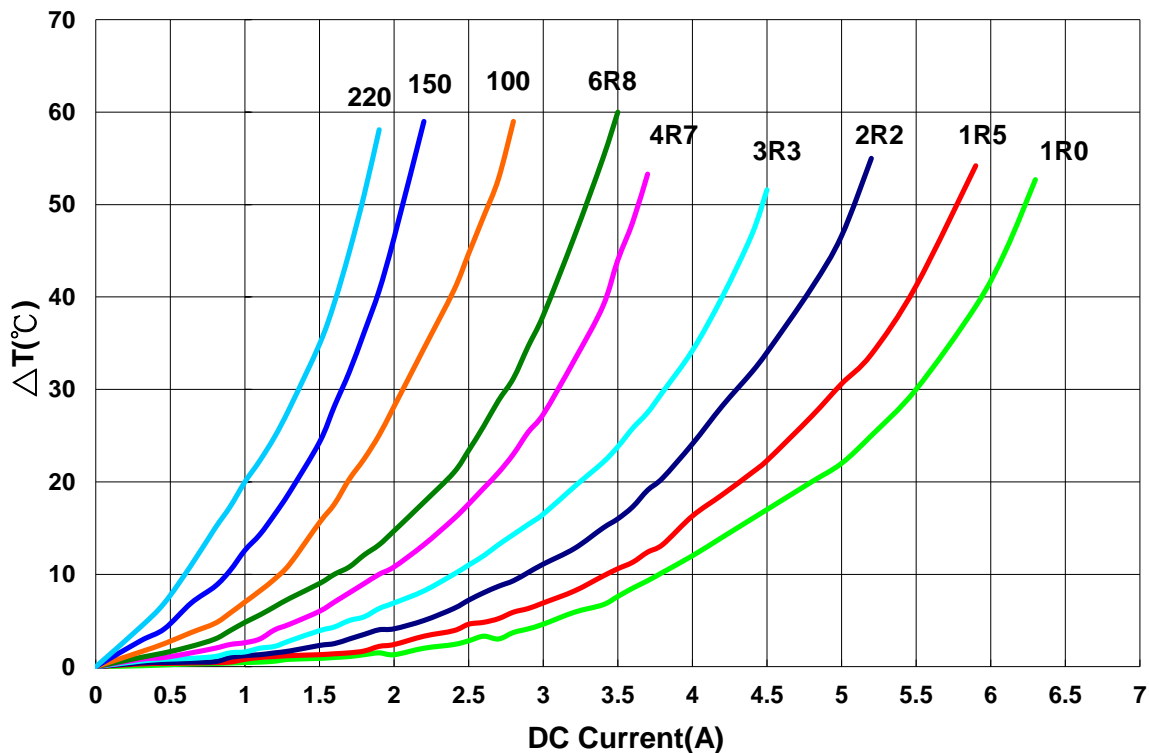
**AWVC00505040 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

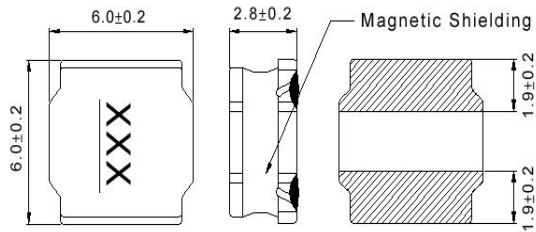


**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

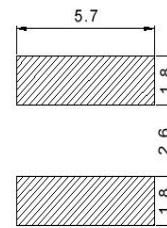
**AWVC00606028 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC006060283R3□00	3.3	100kHz,1V	0.027	4.5(4.00)	4.0(3.60)	20,30	3R3
AWVC00606028100□00	10	100kHz,1V	0.065	2.6(2.30)	2.5(2.20)	20,30	100
AWVC00606028150□00	15	100kHz,1V	0.093	2.1(1.80)	2.0(1.80)	20,30	150
AWVC00606028220□00	22	100kHz,1V	0.135	1.7(1.50)	1.65(1.40)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

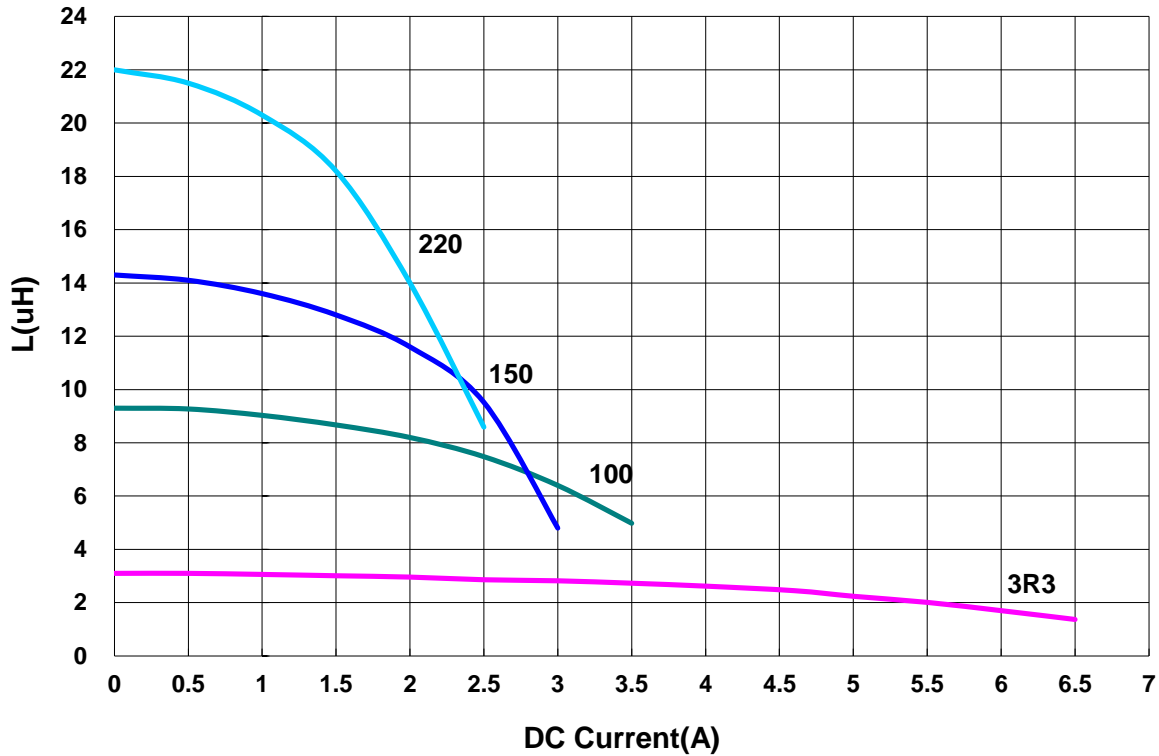
**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

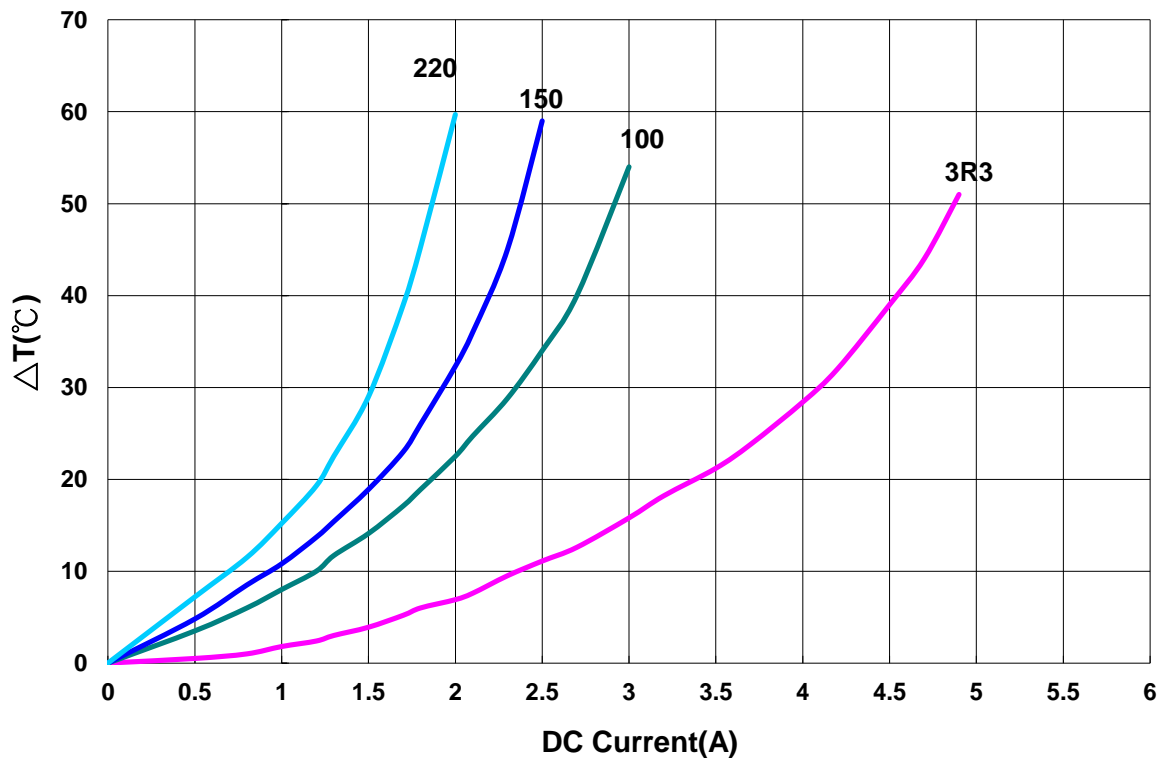
**AWVC00606028 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

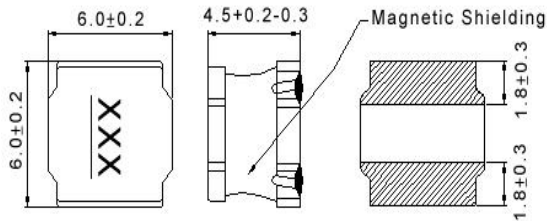


**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

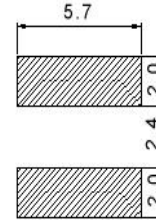
**AWVC00606045 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVC006060451R0□00	1	100kHz,1V	0.010	13(11.50)	7.3(6.50)	20,30	1R0
AWVC006060451R5□00	1.5	100kHz,1V	0.012	12(10.50)	6.6(5.90)	20,30	1R5
AWVC006060452R2□00	2.2	100kHz,1V	0.018	9.5(8.50)	5.2(4.60)	20,30	2R2
AWVC006060453R3□00	3.3	100kHz,1V	0.022	7.8(7.00)	4.4(3.90)	20,30	3R3
AWVC006060454R7□00	4.7	100kHz,1V	0.030	6.8(6.10)	4.0(3.60)	20,30	4R7
AWVC006060456R8□00	6.8	100kHz,1V	0.042	5.7(5.10)	3.3(2.90)	20,30	6R8
AWVC00606045100□00	10	100kHz,1V	0.060	4.6(4.10)	2.6(2.30)	20,30	100
AWVC00606045150□00	15	100kHz,1V	0.090	3.8(3.40)	2.2(1.90)	20,30	150
AWVC00606045220□00	22	100kHz,1V	0.130	3.3(2.90)	1.9(1.70)	20,30	220

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

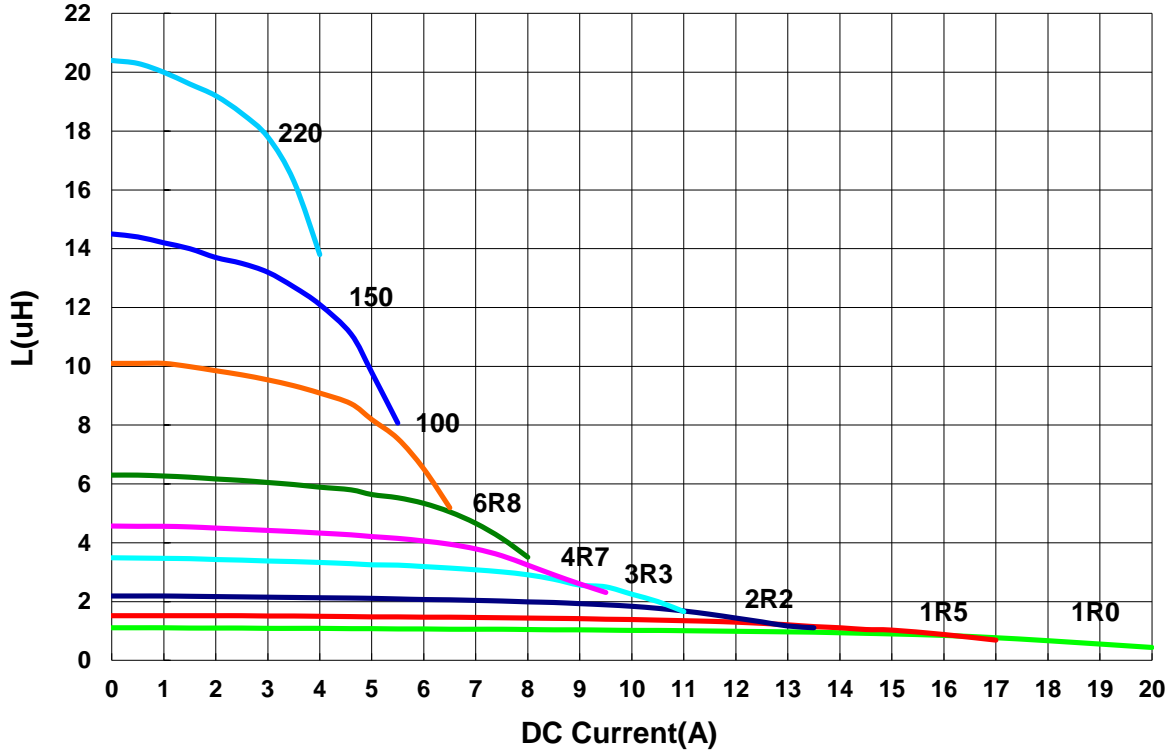
**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

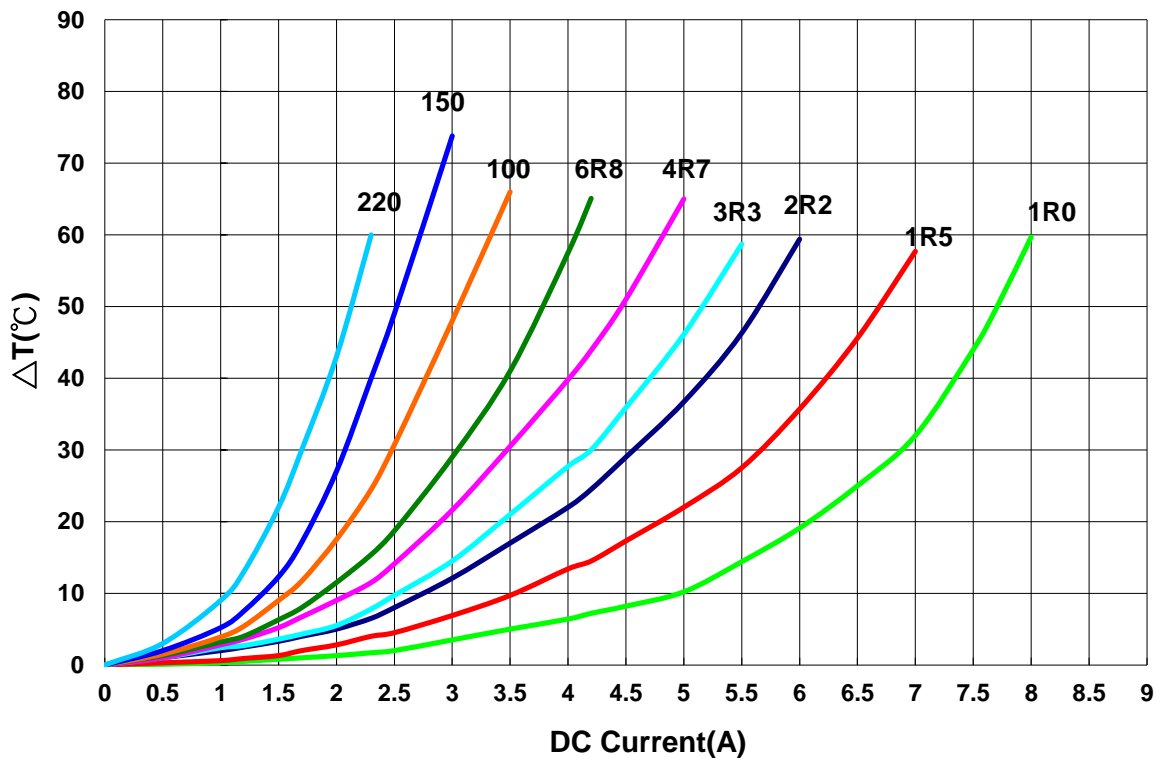
**AWVC00606045 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



**Power Inductor AWVC Series**

**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions

Figure 1

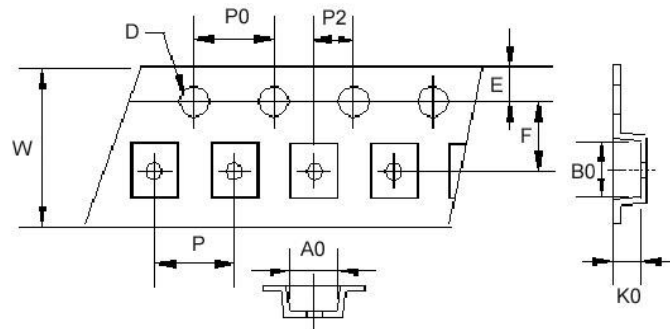
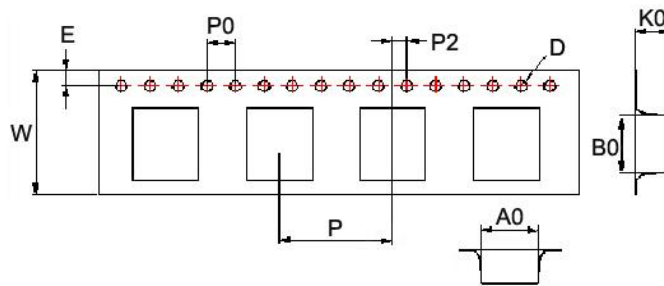


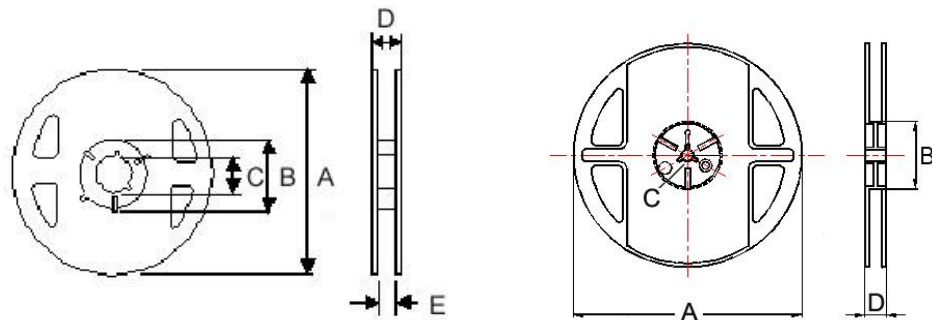
Figure 2



Reel Dimensions

Figure 1

Figure 2



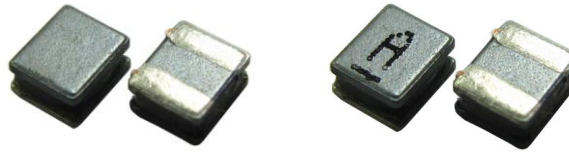
Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	PCS / Reel
AWVC00201610	1	1.9	2.2	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVC00201612	1	1.9	2.2	1.3	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVC00252012	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVC00404018	2	4.25	4.25	2.1	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
AWVC00505040	2	5.2	5.2	4.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	1500
AWVC00606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1500
AWVC00606045	2	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1000

**Power Inductor AWH Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



**Part Numbering**

A	WVH	00	252012	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			201610 2.0x1.6x1.02	R47 0.47	M ±20%	00 General
			252010 2.5x2.0x1.0	1R0 1.0	T ±30%	H1 High Current
			252012 2.5x2.0x1.2	101 100		
			404030 4.0x4.0x3.0			

This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

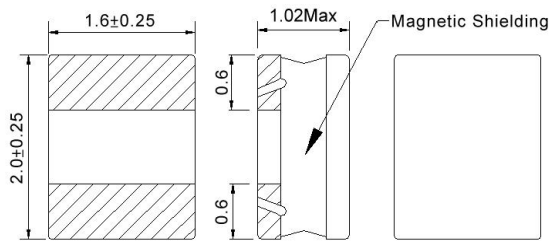


**Power Inductor AWWH Series**

**Automotive  
AEC-Q200**

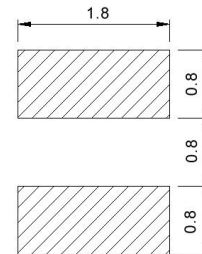
**AWVH00201610-H1 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)
AWVH00201610R24□H1	0.24	1MHz,200mV	0.048	3700(3300)	2500(2100)	20,30
AWVH00201610R33□H1	0.33	1MHz,200mV	0.048	3400(3000)	2500(2100)	20,30
AWVH00201610R47□H1	0.47	1MHz,200mV	0.072	2900(2600)	2100(1800)	20,30
AWVH00201610R56□H1	0.56	1MHz,200mV	0.072	2700(2400)	2100(1800)	20,30
AWVH00201610R68□H1	0.68	1MHz,200mV	0.092	2500(2200)	1800(1500)	20,30
AWVH002016101R0□H1	1.0	1MHz,200mV	0.110	2200(2000)	1500(1200)	20,30
AWVH002016102R2□H1	2.2	1MHz,200mV	0.205	1400(1200)	1150(970)	20,30
AWVH002016104R7□H1	4.7	1MHz,200mV	0.520	900(800)	800(680)	20,30
AWVH00201610100□H1	10	1MHz,200mV	1.100	620(550)	450(380)	20,30

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - Irms: Agilent HP4284A

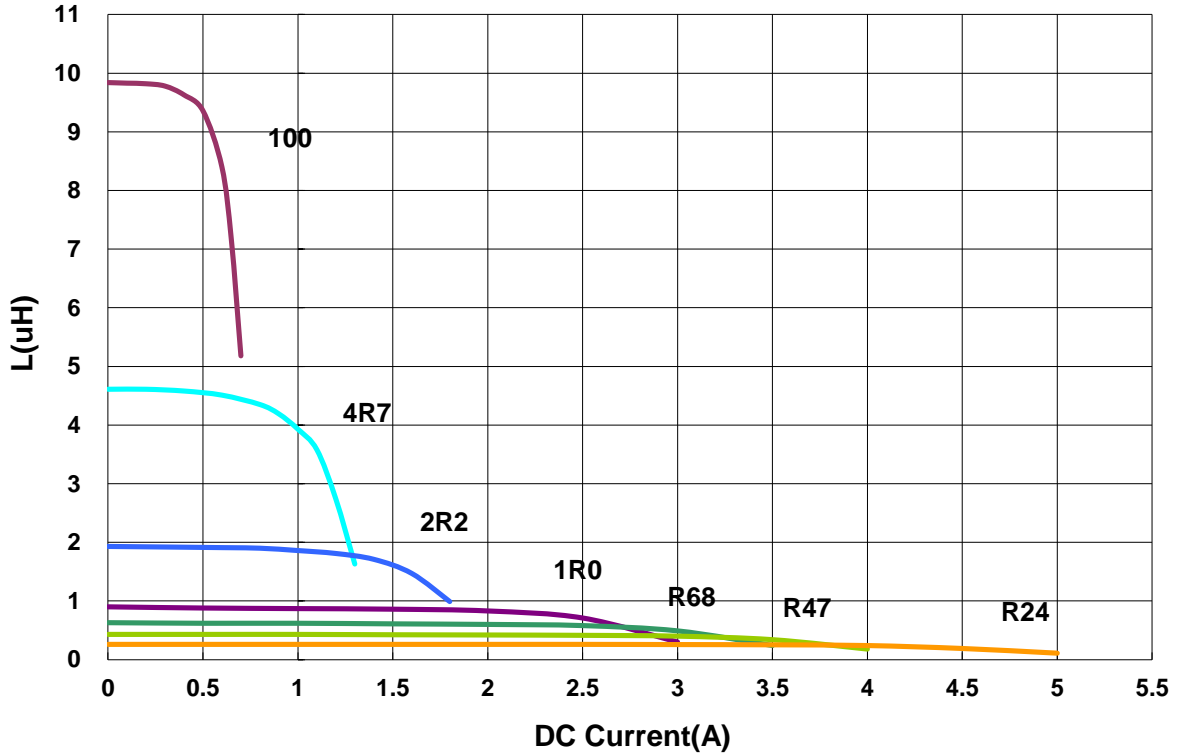
**Power Inductor AWH Series**

**Automotive  
AEC-Q200**

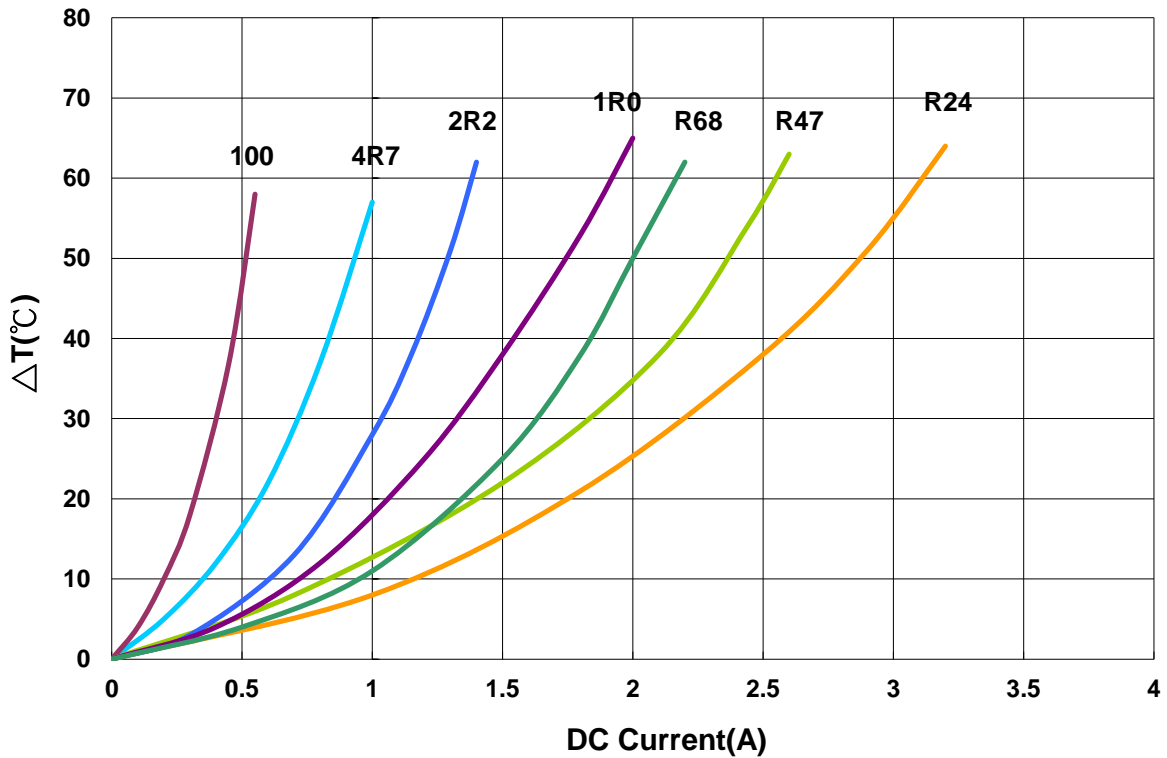
**AWVH00201610-H1 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

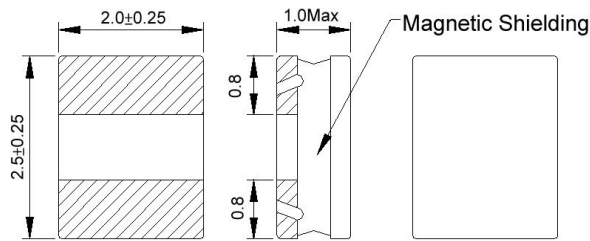


**Power Inductor AWWH Series**

**Automotive  
AEC-Q200**

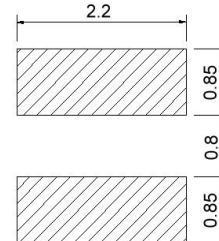
**AWVH00252010-H1 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)
AWVH00252010R24□H1	0.24	1MHz,200mV	0.030	4.70(4.20)	3.60(3.00)	20,30
AWVH00252010R47□H1	0.47	1MHz,200mV	0.043	3.30(2.90)	2.70(2.30)	20,30
AWVH00252010R68□H1	0.7	1MHz,200mV	0.062	2.80(2.00)	2.30(1.90)	20,30
AWVH002520101R0□H1	1	1MHz,200mV	0.080	2.30(2.00)	1.90(1.60)	20,30
AWVH002520102R2□H1	2.2	1MHz,200mV	0.135	1.60(1.40)	1.40(1.10)	20,30
AWVH002520104R7□H1	4.7	1MHz,200mV	0.330	1.00(0.90)	0.85(0.72)	20,30
AWVH00252010100□H1	10	1MHz,200mV	0.670	0.72(0.64)	0.58(0.49)	20,30

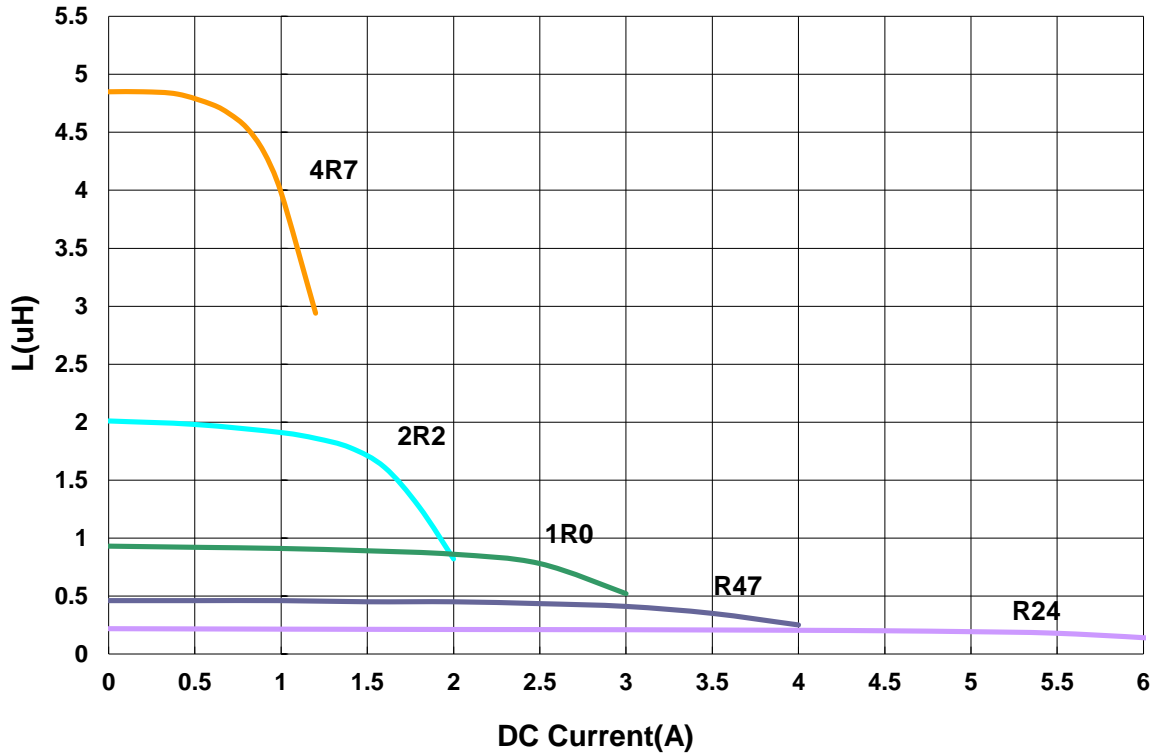
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

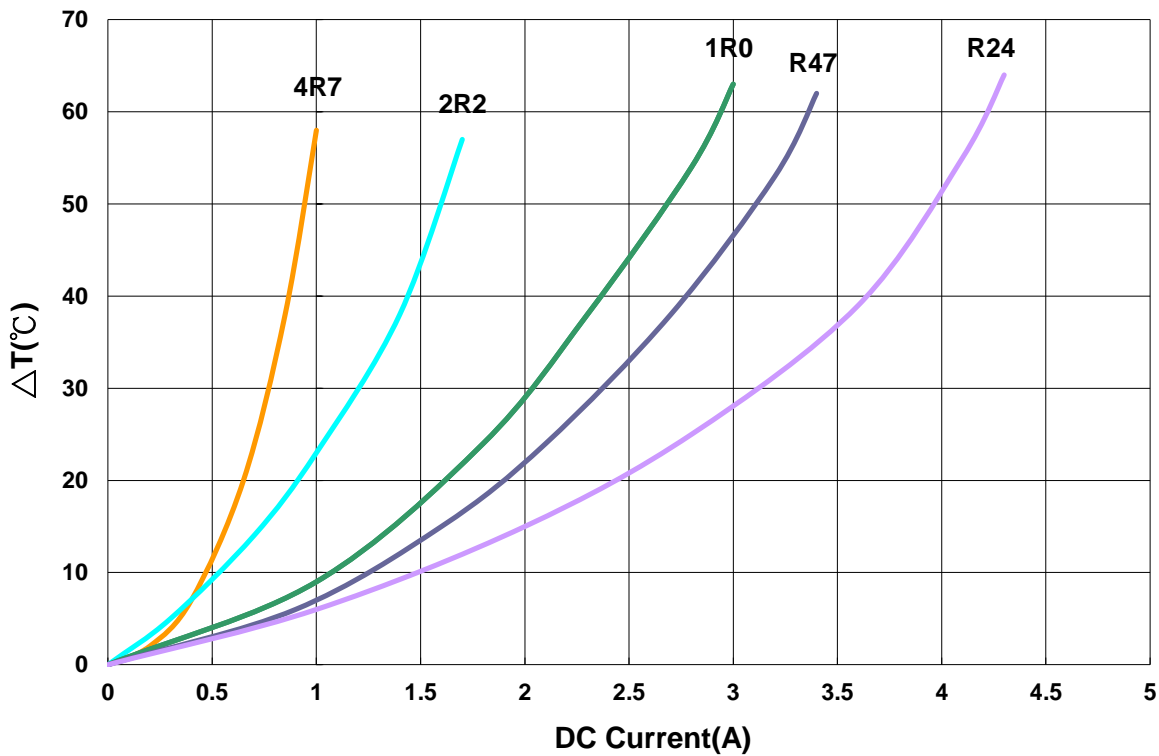
AWVH00252010-H1 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

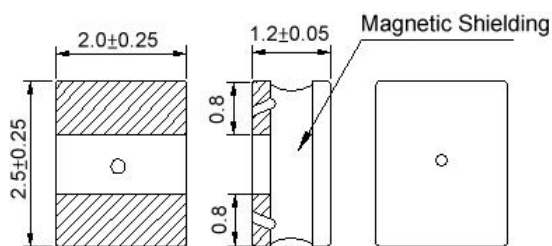


**Power Inductor AWHV Series**

**Automotive  
AEC-Q200**

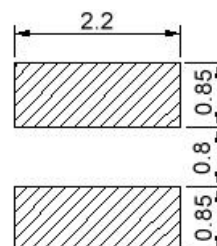
**AWVH00252012-H1 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)
AWVH00252012R47□H1	0.47	1MHz,200mV	0.031	4.10(3.60)	3.10(2.60)	20,30
AWVH00252012R68□H1	0.68	1MHz,200mV	0.031	3.10(2.70)	3.10(2.60)	20,30
AWVH002520121R0□H1	1.0	1MHz,200mV	0.049	3.20(2.80)	3.00(2.50)	20,30
AWVH002520121R5□H1	1.5	1MHz,200mV	0.088	2.30(2.00)	2.20(1.80)	20,30
AWVH002520122R2□H1	2.2	1MHz,200mV	0.099	2.20(1.90)	2.00(1.70)	20,30
AWVH002520123R3□H1	3.3	1MHz,200mV	0.190	1.40(1.20)	1.20(1.00)	20,30
AWVH002520124R7□H1	4.7	1MHz,200mV	0.235	1.30(1.10)	1.10(0.93)	20,30
AWVH00252012100□H1	10	1MHz,200mV	0.510	0.92(0.82)	0.80(0.68)	20,30

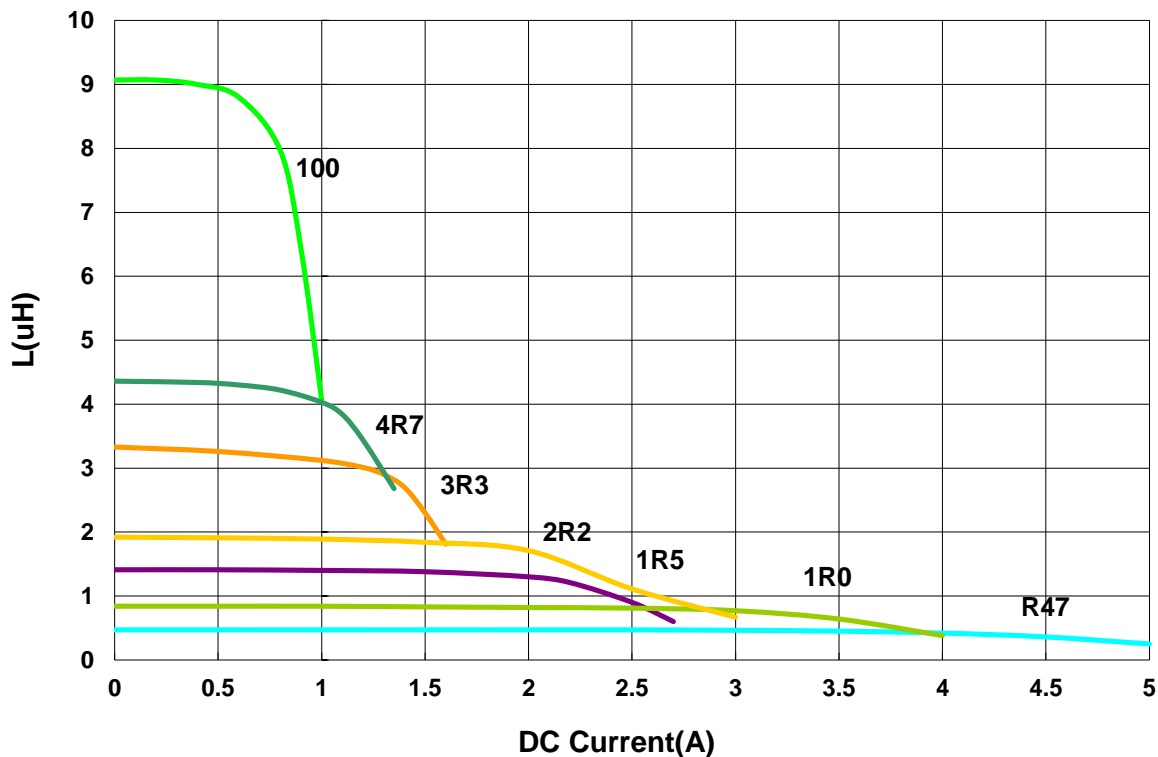
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent HP4287A+Agilent HP16197A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

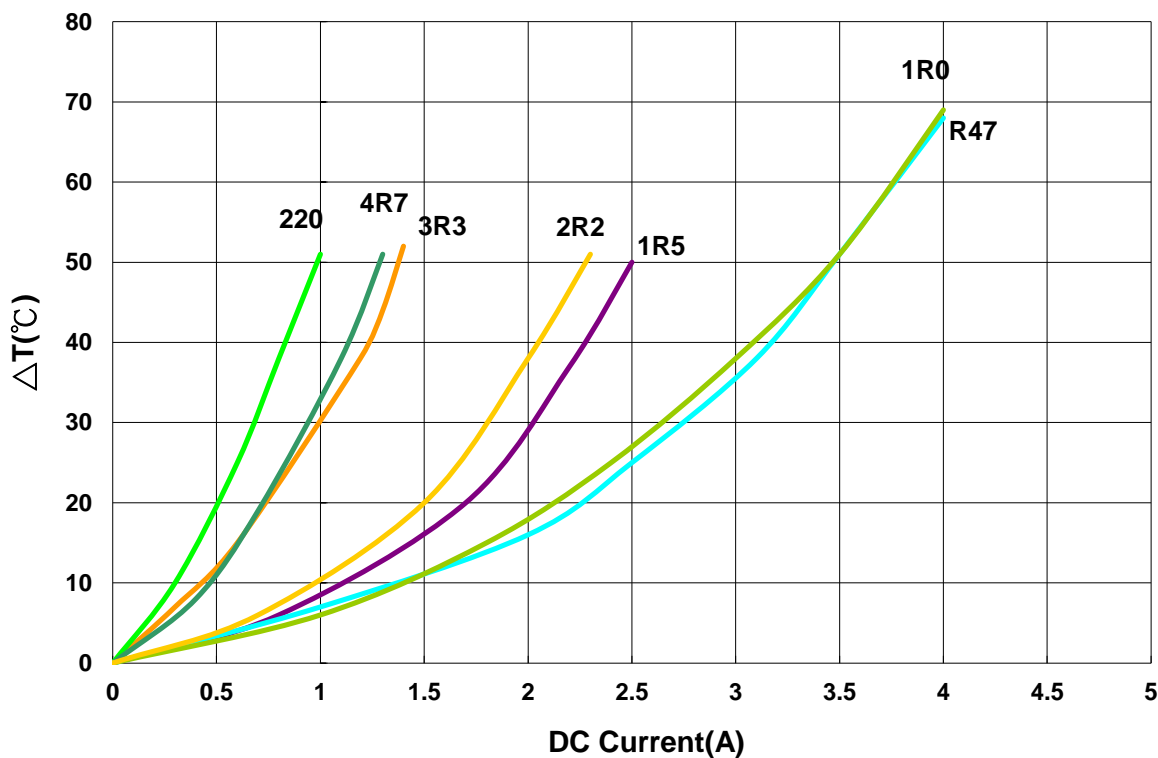
AWVH00252012-H1 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

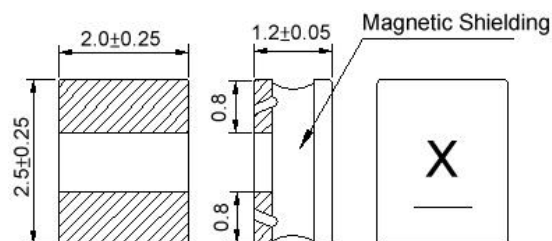


**Power Inductor AWWH Series**

**Automotive  
AEC-Q200**

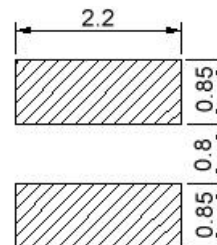
**AWVH00252012 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVH00252012R24□00	0.24	1MHz,200mV	0.021	4.70(4.20)	3.80(3.20)	20,30	E
AWVH00252012R33□00	0.33	1MHz,200mV	0.027	4.20(3.70)	3.00(2.50)	20,30	G
AWVH00252012R47□00	0.47	1MHz,200mV	0.027	3.60(3.30)	3.00(2.50)	20,30	J
AWVH00252012R50□00	0.50	1MHz,200mV	0.027	3.60(3.30)	3.00(2.50)	20,30	D
AWVH00252012R68□00	0.68	1MHz,200mV	0.036	2.90(2.60)	2.80(2.30)	20,30	H
AWVH002520121R0□00	1.0	1MHz,200mV	0.037	2.70(2.40)	2.60(2.20)	20,30	A
AWVH002520121R5□00	1.5	1MHz,200mV	0.075	2.20(1.90)	1.90(1.60)	20,30	I
AWVH002520122R2□00	2.2	1MHz,200mV	0.080	1.90(1.80)	1.80(1.50)	20,30	B
AWVH002520124R7□00	4.7	1MHz,200mV	0.195	1.20(1.00)	1.10(0.93)	20,30	C
AWVH00252012100□00	10	1MHz,200mV	0.400	0.90(0.78)	0.80(0.68)	20,30	F

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4287A+Agilent HP16197A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

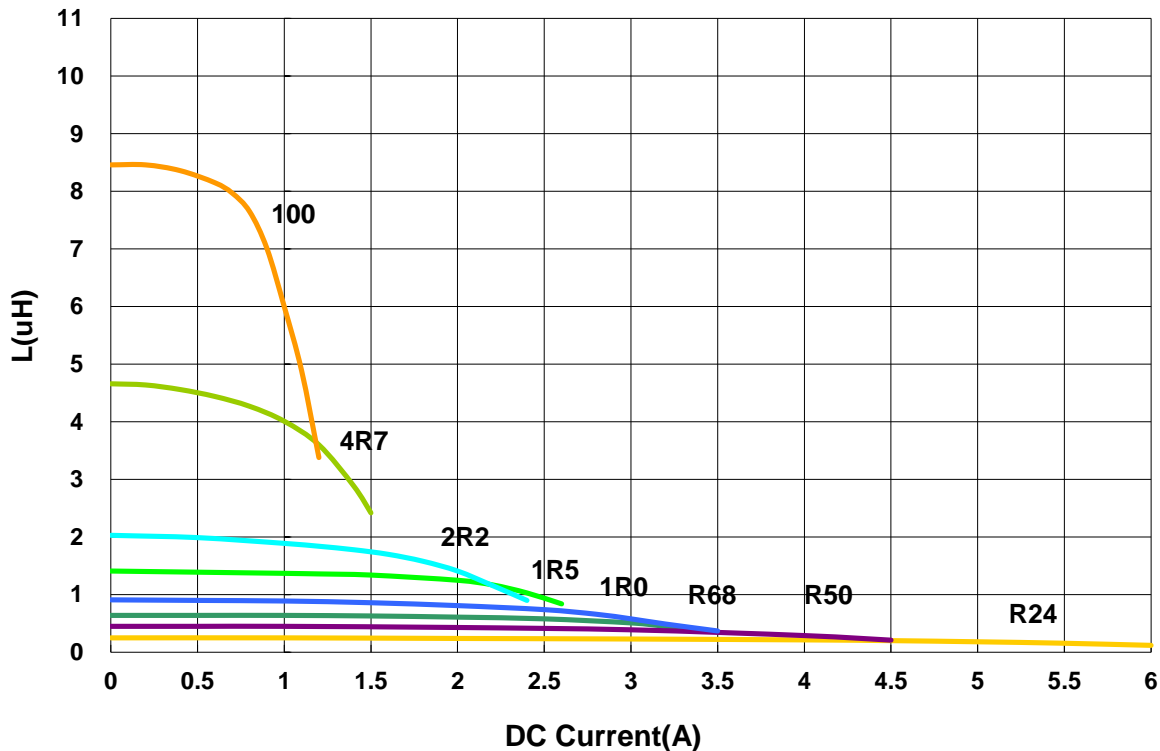
**Power Inductor AWHV Series**

**Automotive  
AEC-Q200**

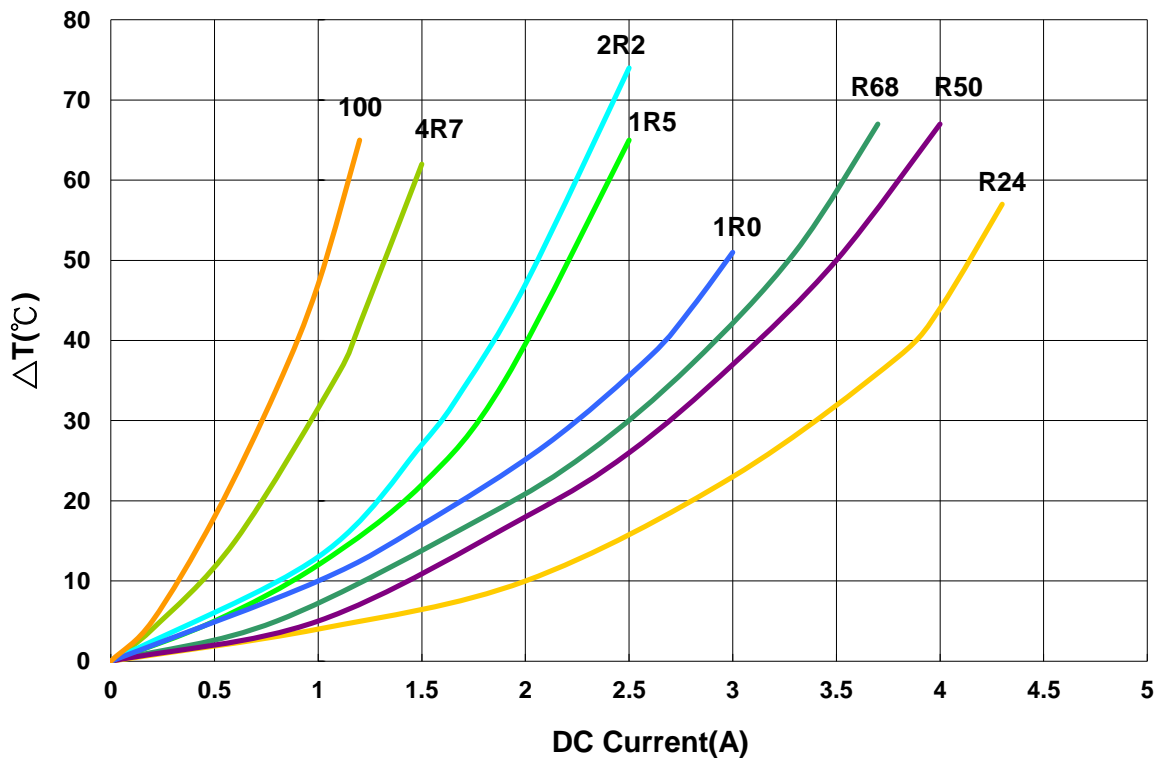
**AWVH00252012 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



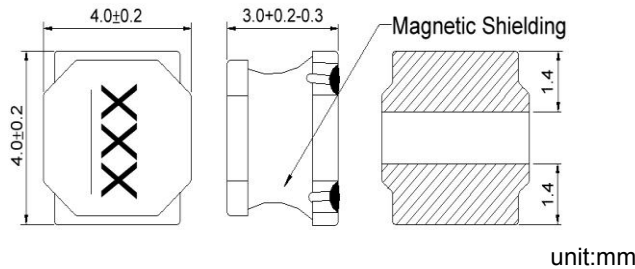


**Power Inductor AWH Series**

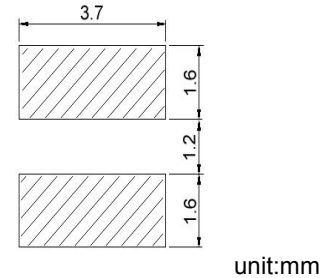
**Automotive  
AEC-Q200**

**AWVH00404030 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVH00404030R47□00	0.47	100kHz,1V	0.014	9.0(8.0)	5.2(4.6)	30	R47
AWVH004040302R2□00	2.2	100kHz,1V	0.042	4.4(3.9)	2.8(2.5)	20,30	2R2

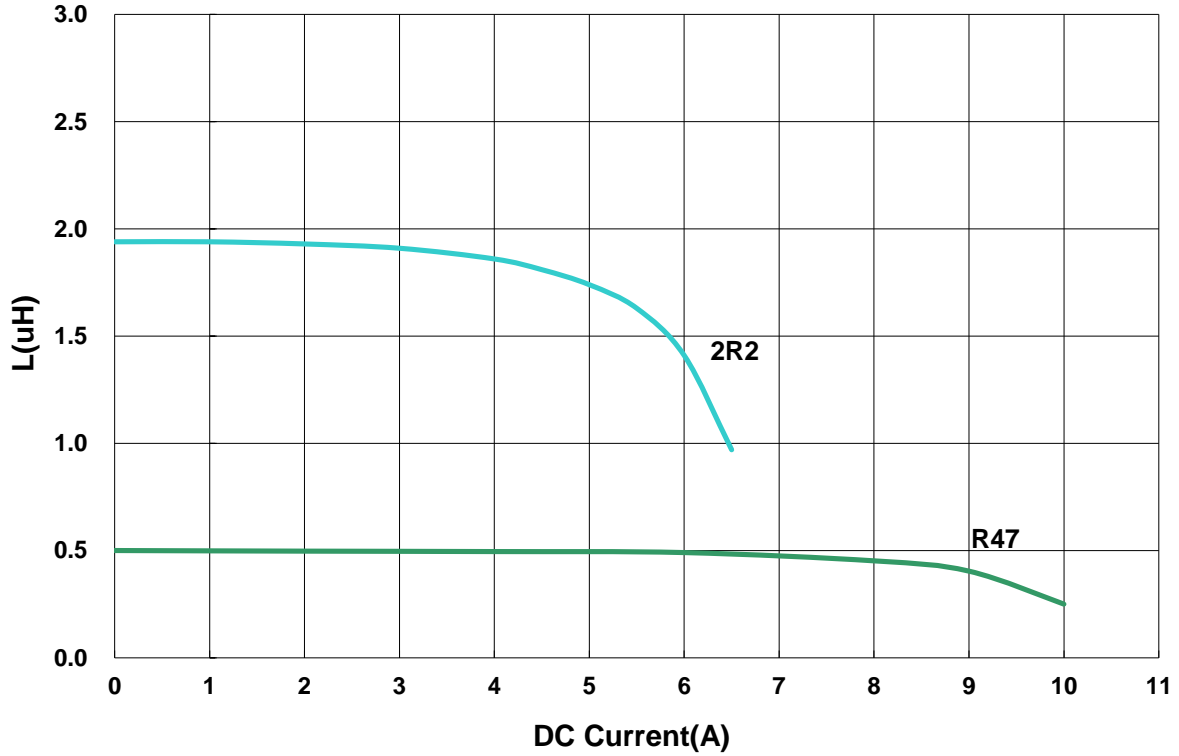
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  - Isat: Agilent HP4284A
  - I rms: Agilent HP4284A

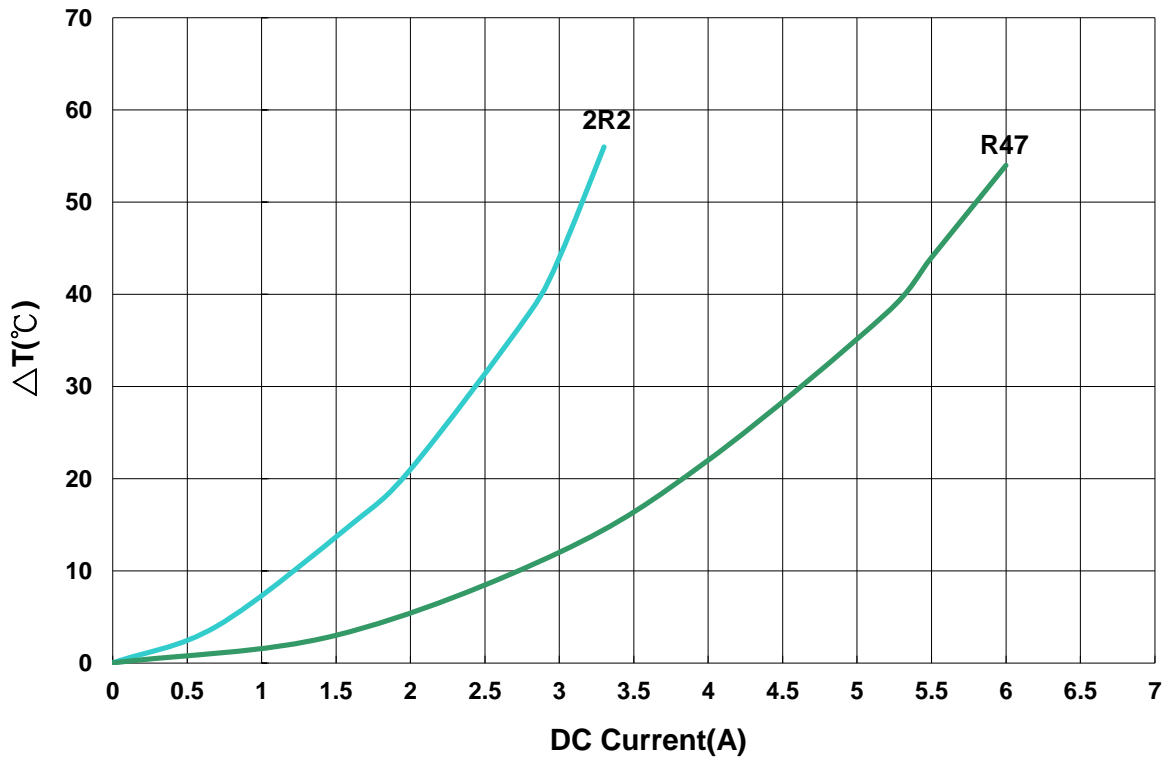
AWVH00404030 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

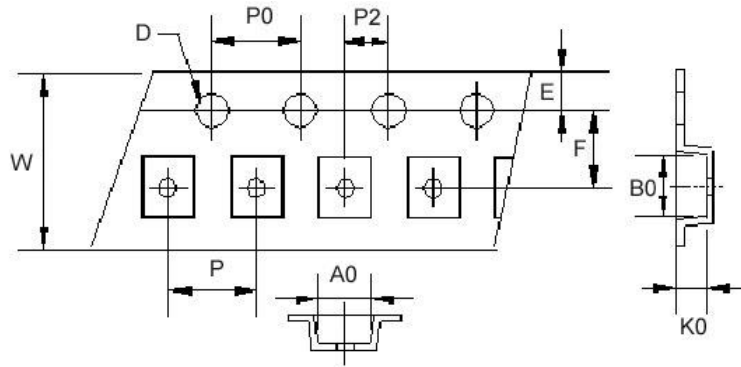


**Power Inductor AWH Series**

**Automotive  
AEC-Q200**

**■ Packaging**

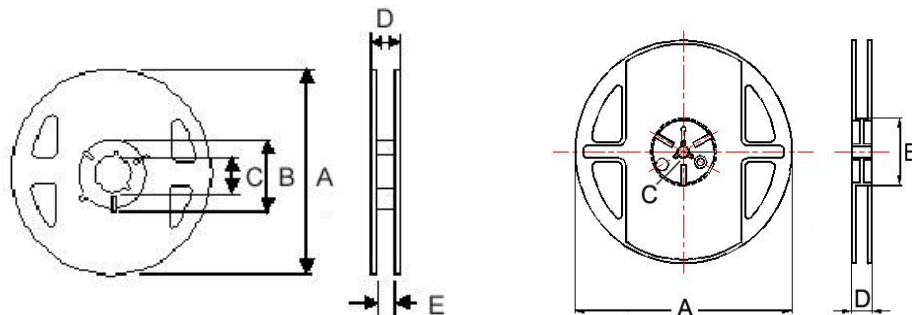
Tape Dimensions



Reel Dimensions

Figure 1

Figure 2



TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
AWVH00201610	1	1.9	2.2	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVH00252010	1	2.4	2.7	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVH00252012	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
AWVH00404030	2	4.25	4.25	3.2	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500

**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



**Part Numbering**

A	PSC	00	131380	100	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			030316 3.2x3.2x1.55	R47 0.5	M ±20%	
			040418 4.0x4.0x1.8	2R2 2.2	T ±30%	
			040430 4.0x4.0x3.0	101 100		
			050520 4.7x4.7x2.0			
			050530 4.7x4.7x3.0			
			050540 4.7x4.7x4.0			
			060620 5.7x5.7x2.0			
			060630 5.7x5.7x3.0			
			070730 6.7x6.7x3.0			
			070740 7.0x7.0x4.0			
			101131 10.3x10.5x3.1			
			101140 10.3x10.5x4.0			
			101151 10.3x10.5x5.1			
			080846 7.5x7.5x4.6			
			131345 12.5x12.5x4.5			
			131360 12.5x12.5x6.0			
			131380 12.5x12.5x8.0			

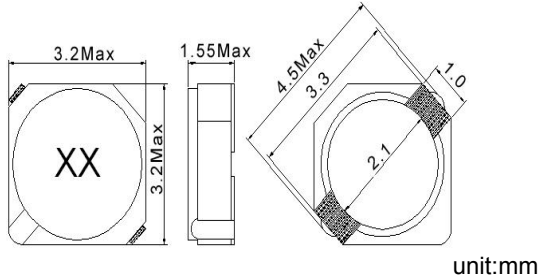
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Power Inductor APSC Series

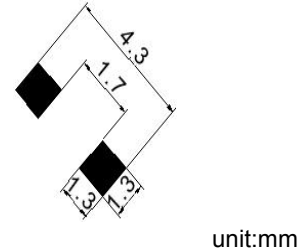
Automotive  
AEC-Q200

APSC00030316 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Rated Current (A)	Irms (A)Typ.	Tolerance (±%)	Marking
APSC00030316R47□00	0.47	100 kHz, 1 V	0.04	2	2	30	AO
APSC000303161R5□00	1.5	100 kHz, 1 V	0.063	1.8	2	30	BF
APSC000303161R8□00	1.8	100 kHz, 1 V	0.075	1.65	1.8	30	BI
APSC000303162R2□00	2.2	100 kHz, 1 V	0.094	1.5	1.6	30	CC
APSC000303162R7□00	2.7	100 kHz, 1 V	0.106	1.35	1.4	30	CH
APSC000303163R3□00	3.3	100 kHz, 1 V	0.125	1.2	1.24	30	DD
APSC000303163R9□00	3.9	100 kHz, 1 V	0.138	1.1	1.12	30	DJ
APSC000303164R1□00	4.1	100 kHz, 1 V	0.169	1	1	30	EA
APSC000303164R7□00	4.7	100 kHz, 1 V	0.169	1	1	30	EH
APSC000303165R6□00	5.6	100 kHz, 1 V	0.188	0.95	0.98	30	FG
APSC000303166R8□00	6.8	100 kHz, 1 V	0.213	0.85	0.92	30	GI
APSC000303168R2□00	8.2	100 kHz, 1 V	0.281	0.8	0.8	30	IC
APSC00030316100□00	10	100 kHz, 1 V	0.294	0.7	0.76	20,30	KA
APSC00030316120□00	12	100 kHz, 1 V	0.394	0.62	0.64	20,30	QA

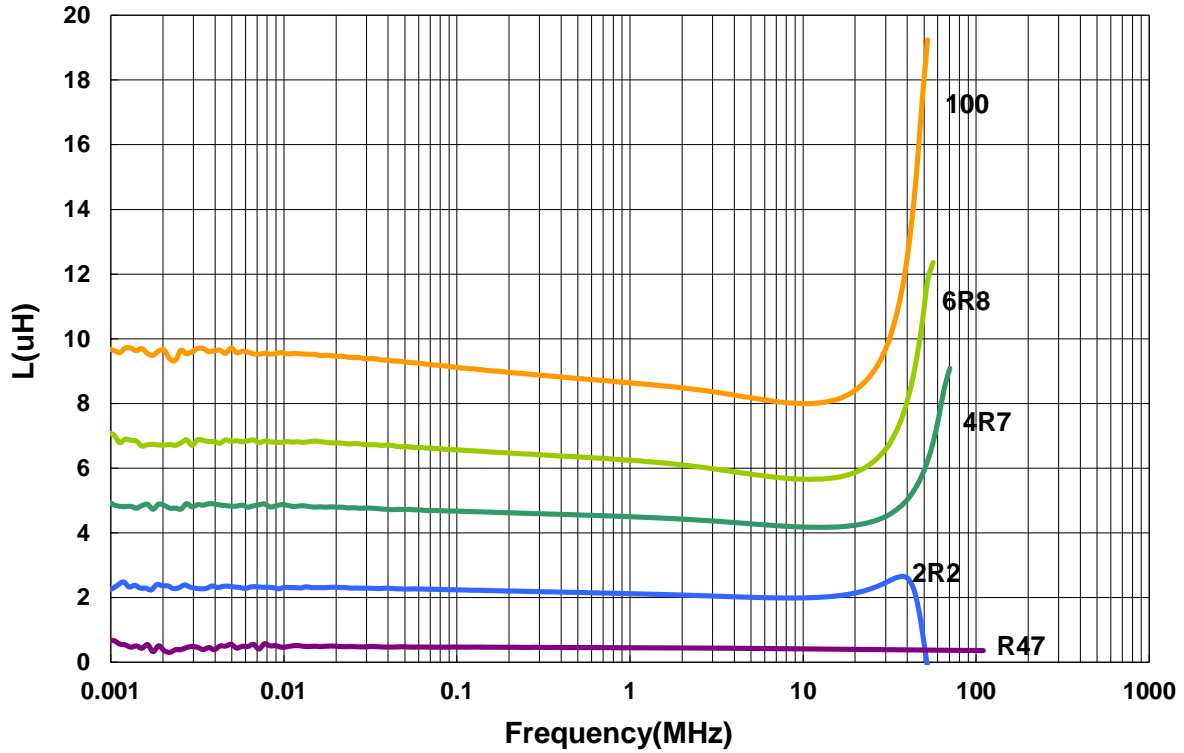
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated Current: Inductance drop = 35% typ.
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:
  - L: Agilent E4980 or HP4284A
  - RDC: CH502BC
  - Rate Current: HP4284+42841A or WK3260B+WK3265B

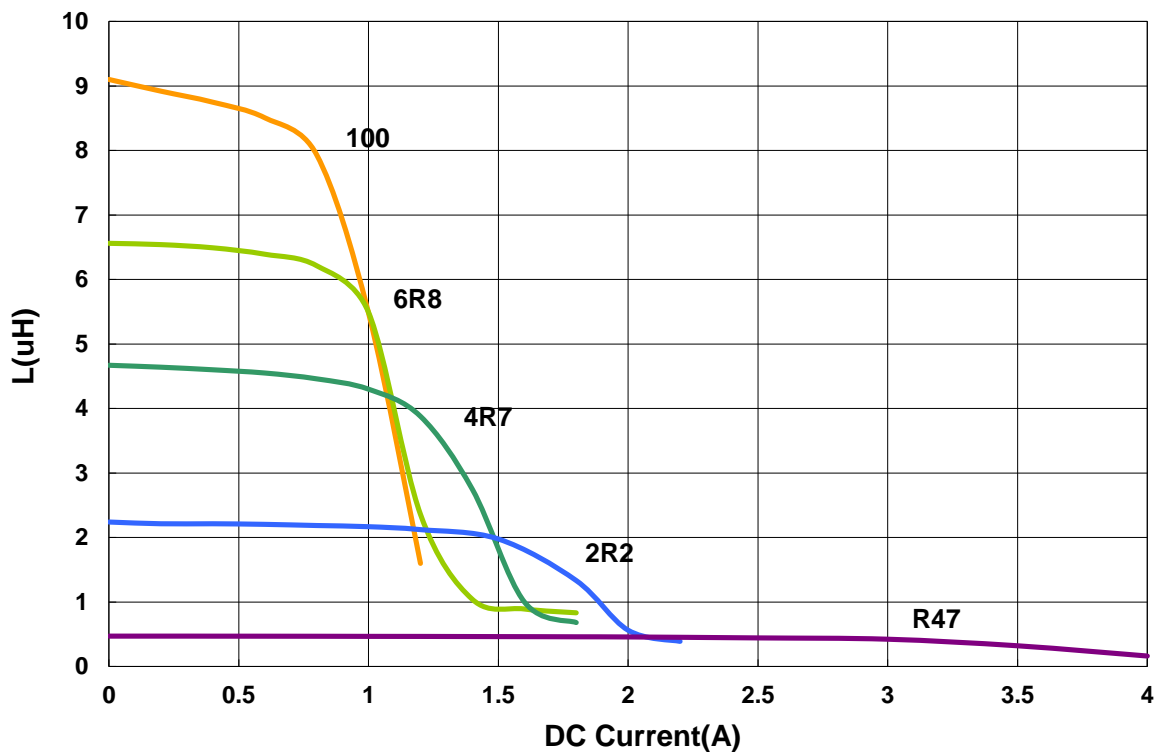
APSC00030316 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

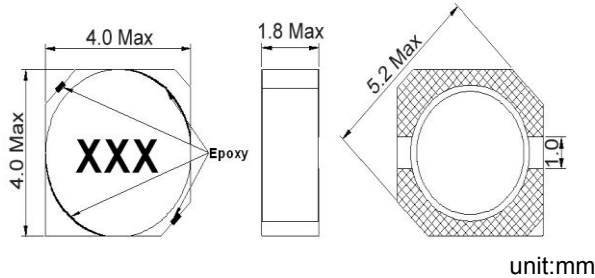


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

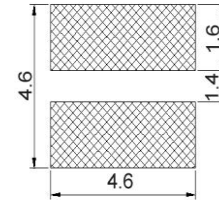
**APSC00040418 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC0000404181R0□S0	1	100 kHz,0.1 V	0.04	1.35(1.7)	30	1R0
APSC0000404181R5□S0	1.5	100 kHz,0.1 V	0.052	1.25(1.6)	30	1R5
APSC0000404182R2□S0	2.2	100 kHz,0.1 V	0.072	1.0(1.3)	30	2R2
APSC0000404183R3□S0	3.3	100 kHz,0.1 V	0.085	0.88(1.1)	30	3R3
APSC0000404183R6□S0	3.6	100 kHz,0.1 V	0.09	0.74(0.93)	30	3R6
APSC0000404184R7□S0	4.7	100 kHz,0.1 V	0.105	0.72(0.9)	30	4R7
APSC0000404186R8□S0	6.8	100 kHz,0.1 V	0.17	0.61(0.74)	30	6R8
APSC000040418100□S0	10	100 kHz,0.1 V	0.21	0.55(0.6)	20,30	100
APSC000040418150□S0	15	100 kHz,0.1 V	0.295	0.45(0.52)	20,30	150
APSC000040418220□S0	22	100 kHz,0.1 V	0.43	0.32(0.4)	20,30	220
APSC000040418270□S0	27	100 kHz,0.1 V	0.62	0.3(0.37)	30	270
APSC000040418330□S0	33	100 kHz,0.1 V	0.675	0.26(0.32)	30	330
APSC000040418680□S0	68	100 kHz,0.1 V	1.7	0.16(0.21)	30	680

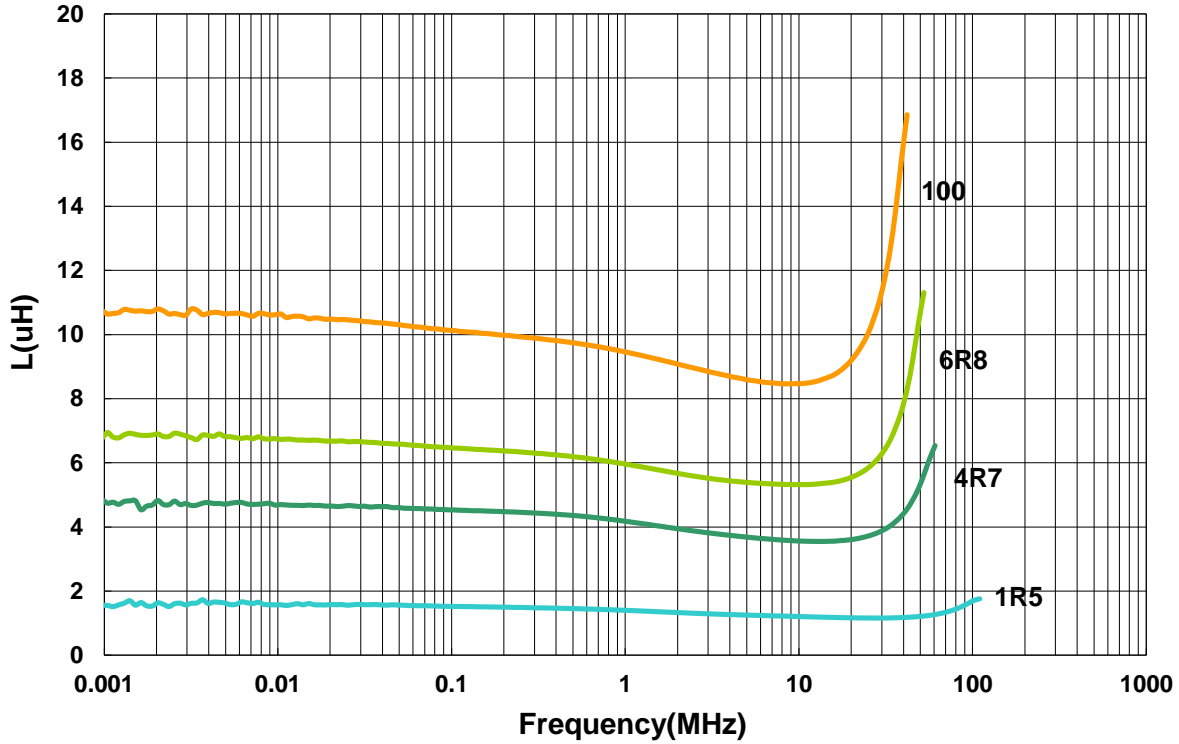
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate current: HP4284+42841A or WK3260B+WK3265B

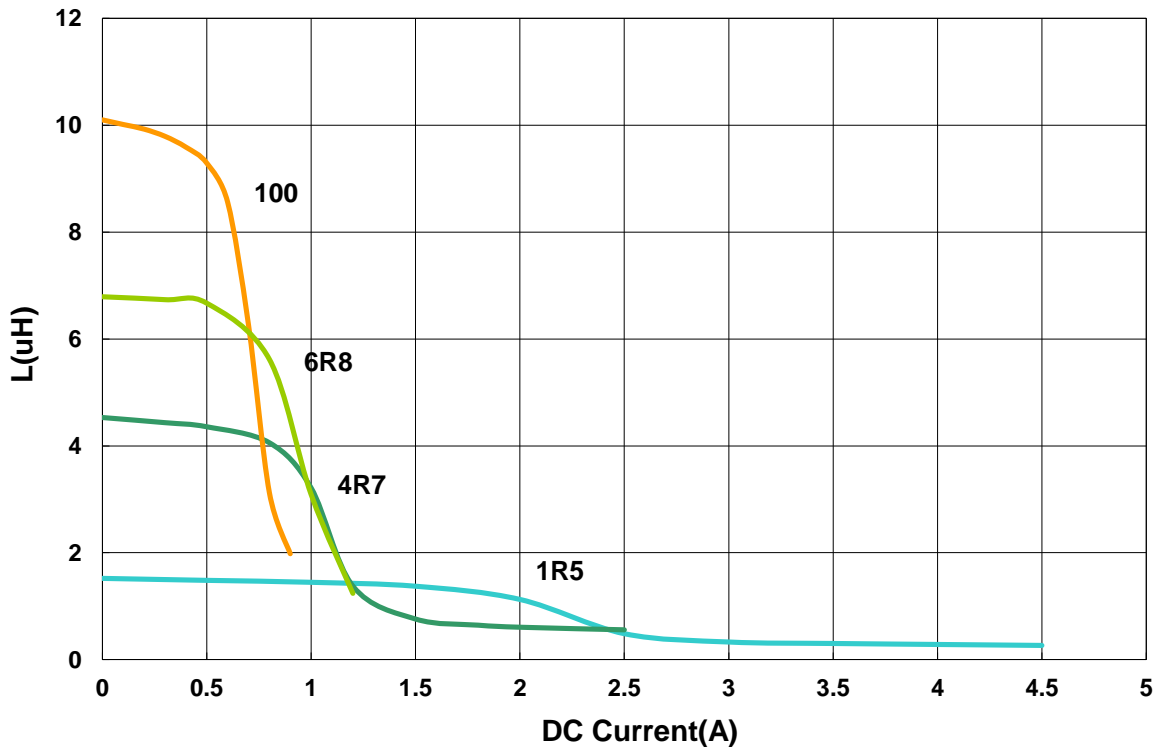
APSC00040418 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



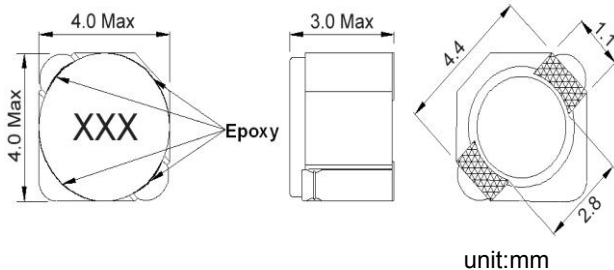


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

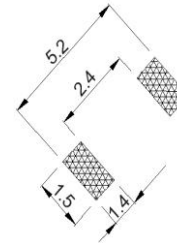
**APSC00040430 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Rated Current (A)	I <sub>rms</sub> (A)Typ.	Tolerance (±%)	Marking
APSC000404301R0□00	1.0	100 kHz, 1 V	0.045	2.80	2.50	30	1R0
APSC000404303R3□00	3.3	100 kHz, 1 V	0.072	2.00	1.85	30	3R3
APSC000404304R7□00	4.7	100 kHz, 1 V	0.088	1.65	1.62	30	4R7
APSC000404306R8□00	6.8	100 kHz, 1 V	0.119	1.24	1.32	30	6R8
APSC00040430100□00	10	100 kHz, 1 V	0.145	1.05	1.18	30	100
APSC00040430150□00	15	100 kHz, 1 V	0.213	0.90	1.02	30	150
APSC00040430220□00	22	100 kHz, 1 V	0.335	0.76	0.74	30	220
APSC00040430330□00	33	100 kHz, 1 V	0.481	0.58	0.63	30	330
APSC00040430470□00	47	100 kHz, 1 V	0.599	0.48	0.56	20,30	470

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Rate current: Inductance drop = 35% typ.
3. I<sub>rms</sub> for a 40°C temprature rise from 25°C ambient.
4. Measure Equipment:

L: Agilent E4980 or HP4284A

RDC: CH502BC

Rate current: HP4284+42841A or WK3260B+WK3265B

I<sub>rms</sub>:HP4284A+HP42841A or WK3260B+WK3265B

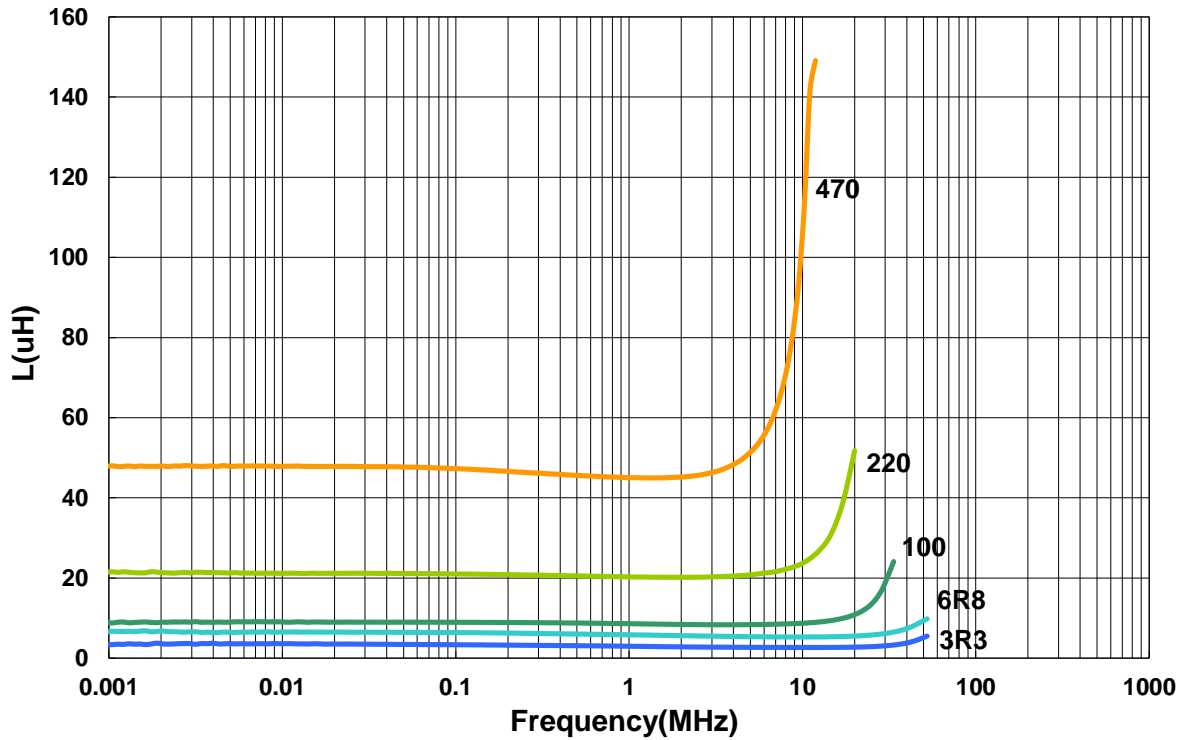
**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

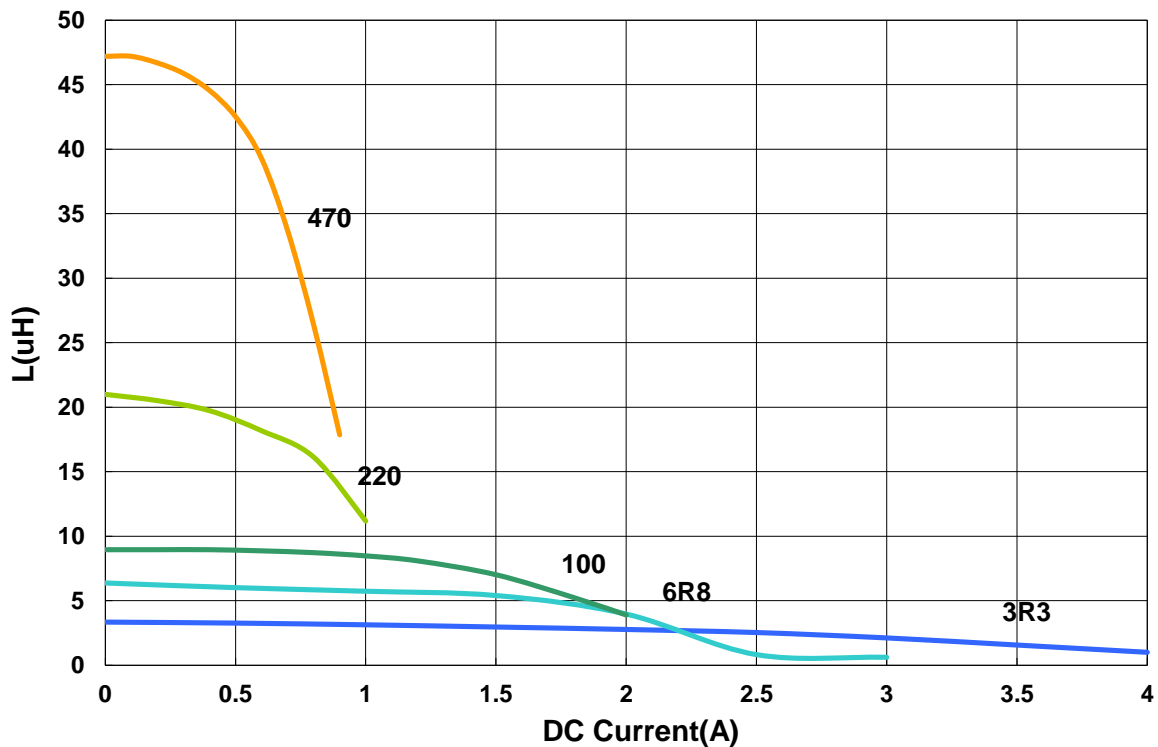
**APSC00040430 Type**

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

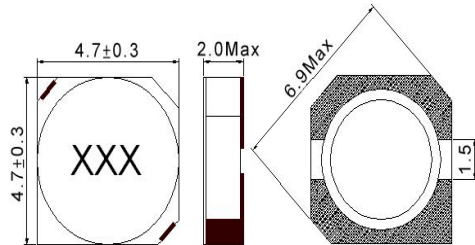


Power Inductor APSC Series

Automotive  
AEC-Q200

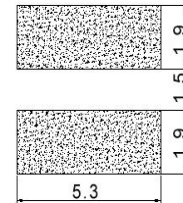
APSC00050520 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000505201R0□S0	1	7.96 MHz,1 V	0.045	1.72(2.5)	30	1R0
APSC000505201R5□S0	1.5	7.96 MHz,1 V	0.060	1.5(1.8)	30	1R5
APSC000505201R8□S0	1.8	7.96 MHz,1 V	0.070	1.35(1.7)	30	1R8
APSC000505202R2□S0	2.2	7.96 MHz,1 V	0.075	1.3(1.6)	30	2R2
APSC000505202R7□S0	2.7	7.96 MHz,1 V	0.105	1.2(1.5)	30	2R7
APSC000505203R3□S0	3.3	7.96 MHz,1 V	0.110	1.04(1.3)	30	3R3
APSC000505203R9□S0	3.9	7.96 MHz,1 V	0.155	0.88(1.2)	30	3R9
APSC000505204R7□S0	4.7	7.96 MHz,1 V	0.162	0.84(1.1)	30	4R7
APSC000505205R6□S0	5.6	7.96 MHz,1 V	0.170	0.8(1.0)	30	5R6
APSC000505206R3□S0	6.3	7.96 MHz,1 V	0.180	0.78(0.95)	30	6R3
APSC000505206R8□S0	6.8	7.96 MHz,1 V	0.200	0.76(0.85)	30	6R8
APSC000505208R2□S0	8.2	7.96 MHz,1 V	0.245	0.68(0.8)	30	8R2
APSC00050520100□S0	10	100 kHz,1 V	0.280	0.61(0.75)	20,30	100
APSC00050520120□S0	12	100 kHz,1 V	0.320	0.56(0.7)	30	120
APSC00050520150□S0	15	100 kHz,1 V	0.360	0.5(0.65)	30	150
APSC00050520180□S0	18	100 kHz,1 V	0.400	0.48(0.6)	30	180
APSC00050520220□S0	22	100 kHz,1 V	0.480	0.41(0.55)	20,30	220
APSC00050520270□S0	27	100 kHz,1 V	0.570	0.35(0.5)	30	270
APSC00050520330□S0	33	100 kHz,1 V	0.694	0.32(0.45)	30	330
APSC00050520390□S0	39	100 kHz,1 V	0.80	0.3(0.4)	30	390
APSC00050520470□S0	47	100 kHz,1 V	0.95	0.28(0.38)	30	470
APSC00050520560□S0	56	100 kHz,1 V	1.08	0.26(0.35)	30	560
APSC00050520680□S0	68	100 kHz,1 V	1.30	0.24(0.34)	30	680
APSC00050520101□S0	100	100 kHz,1 V	2	0.2(0.3)	30	101

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate current: HP4284+42841A or WK3260B+WK3265B

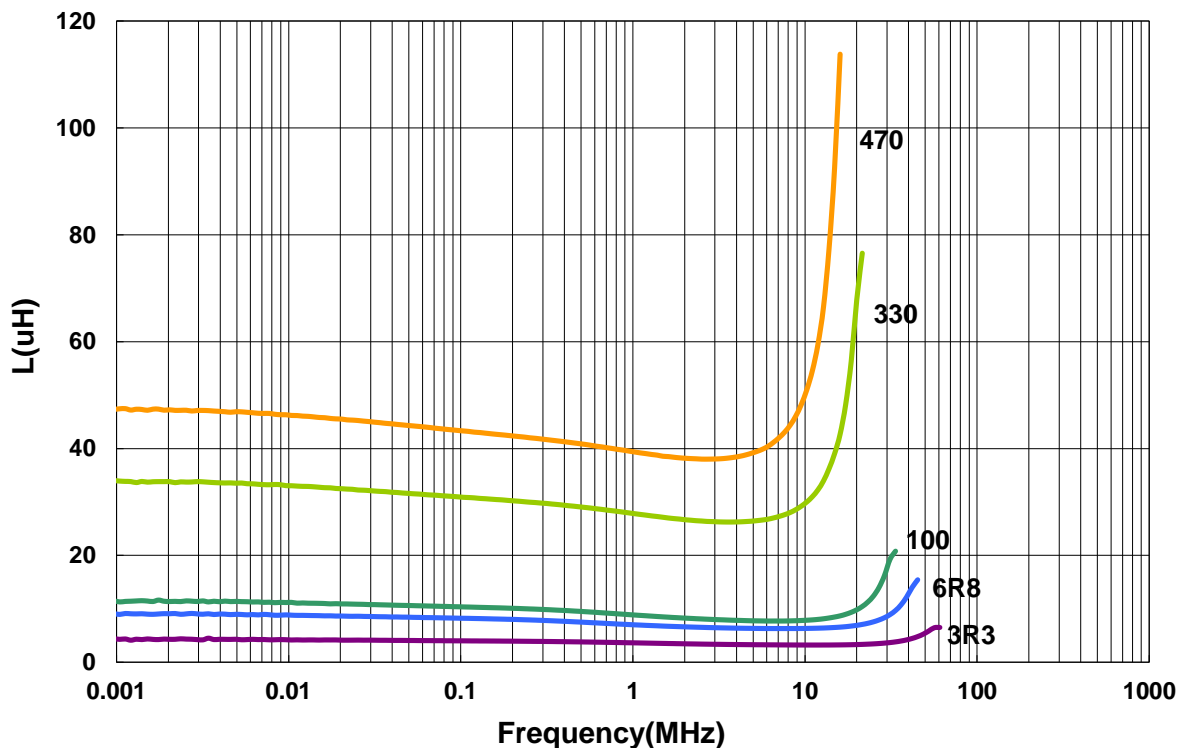
**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

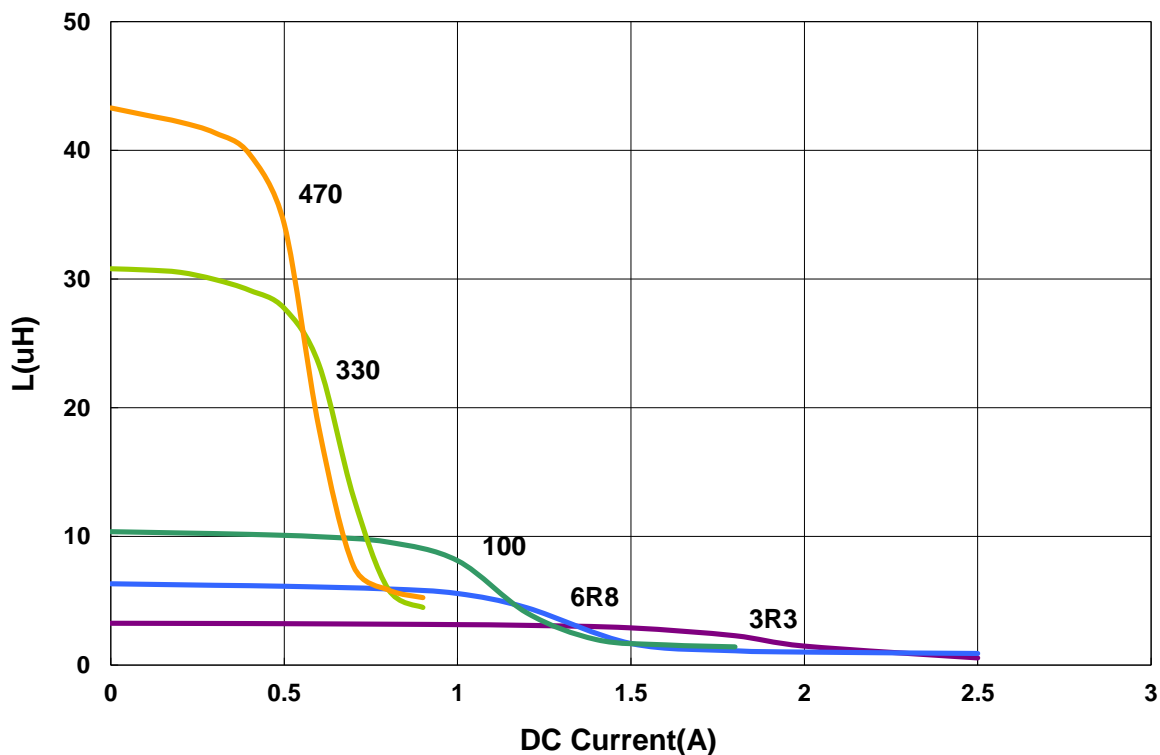
**APSC00050520 Type**

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

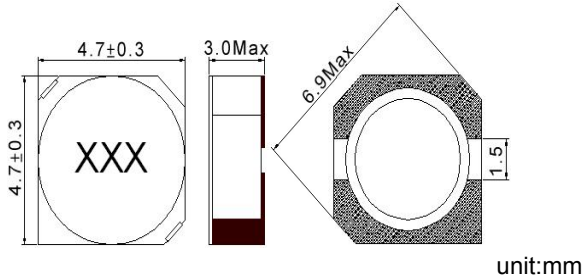


**Power Inductor APSC Series**

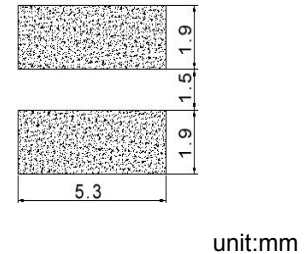
**Automotive  
AEC-Q200**

**APSC00050530 Type**

**Dimensions**



**Recommended Land Pattern**



**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000505301R2□S0	1.2	100 kHz,1 V	0.0236	2.56(4.1)	30	1R2
APSC000505301R8□S0	1.8	100 kHz,1 V	0.035	2.2(3.2)	30	1R8
APSC000505302R0□S0	2	100 kHz,1 V	0.030	2.1(3.0)	30	2R0
APSC000505302R2□S0	2.2	100 kHz,1 V	0.0313	2.04(2.9)	30	2R2
APSC000505302R7□S0	2.7	100 kHz,1 V	0.0433	1.6(2.8)	30	2R7
APSC000505303R3□S0	3.3	100 kHz,1 V	0.0492	1.57(2.3)	30	3R3
APSC000505303R9□S0	3.9	100 kHz,1 V	0.0648	1.44(2.1)	30	3R9
APSC000505304R7□S0	4.7	100 kHz,1 V	0.072	1.32(2.0)	20,30	4R7
APSC000505305R6□S0	5.6	100 kHz,1 V	0.1009	1.17(1.7)	30	5R6
APSC000505306R8□S0	6.8	100 kHz,1 V	0.1089	1.12(1.6)	30	6R8
APSC000505308R2□S0	8.2	100 kHz,1 V	0.1175	1.04(1.5)	30	8R2
APSC00050530100□S0	10	100 kHz,1 V	0.1283	1.0(1.3)	20,30	100
APSC00050530120□S0	12	100 kHz,1 V	0.1316	0.84(1.1)	30	120
APSC00050530150□S0	15	100 kHz,1 V	0.149	0.76(1.0)	30	150
APSC00050530180□S0	18	100 kHz,1 V	0.166	0.72(0.99)	30	180
APSC00050530220□S0	22	100 kHz,1 V	0.235	0.7(0.93)	20,30	220
APSC00050530270□S0	27	100 kHz,1 V	0.261	0.58(0.83)	30	270
APSC00050530330□S0	33	100 kHz,1 V	0.3313	0.56(0.64)	30	330
APSC00050530390□S0	39	100 kHz,1 V	0.3837	0.5(0.7)	20,30	390
APSC00050530470□S0	47	100 kHz,1 V	0.587	0.48(0.61)	30	470
APSC00050530560□S0	56	100 kHz,1 V	0.6245	0.41(0.54)	30	560
APSC00050530680□S0	68	100 kHz,1 V	0.699	0.35(0.49)	30	680
APSC00050530820□S0	82	100 kHz,1 V	0.9148	0.32(0.49)	30	820
APSC00050530101□S0	100	100 kHz,1 V	1.02	0.29(0.45)	20,30	101
APSC00050530121□S0	120	100 kHz,1 V	1.27	0.27(0.4)	30	121
APSC00050530151□S0	150	100 kHz,1 V	1.35	0.24(0.34)	30	151
APSC00050530181□S0	180	100 kHz,1 V	1.54	0.22(0.32)	30	181
APSC00050530221□S0	220	100 kHz,1 V	2.0	0.2(0.29)	30	221
APSC00050530331□S0	330	100 kHz,1 V	3.4	0.19(0.24)	20,30	331
APSC00050530391□S0	390	100 kHz,1 V	3.56	0.18(0.22)	20,30	391
APSC00050530681□S0	680	100 kHz,1 V	5.2	0.1(0.17)	20,30	681

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:

L: Agilent E4980 or HP4284A

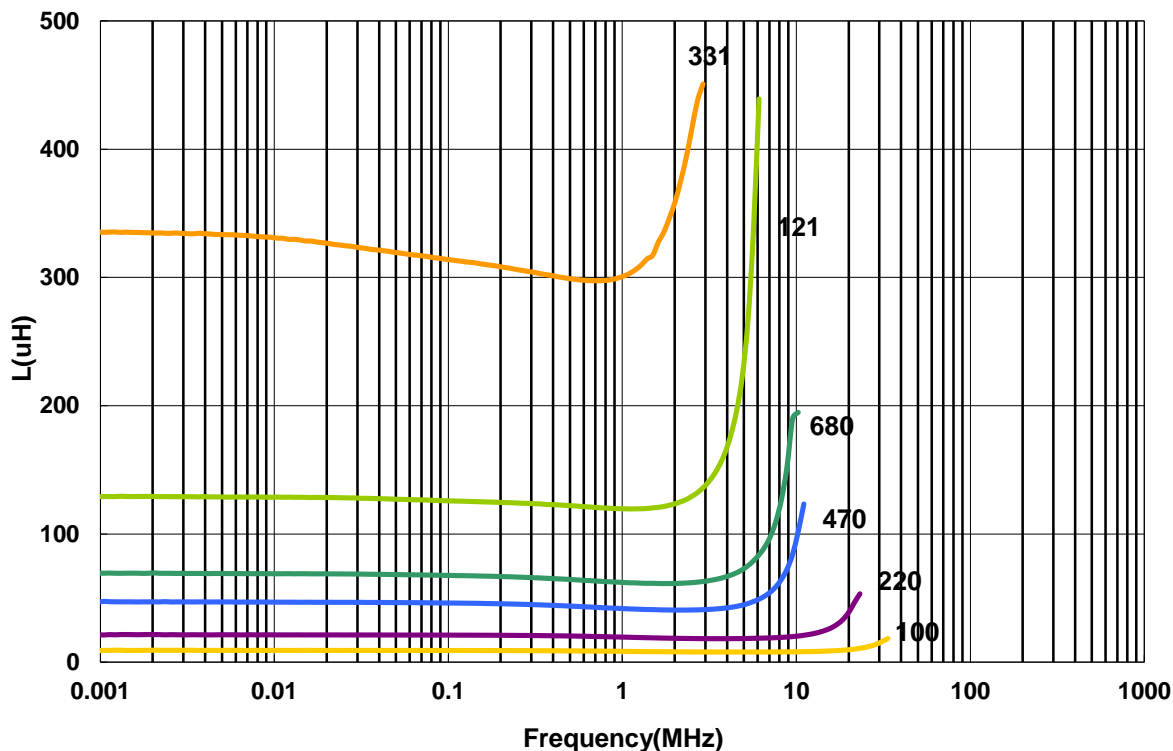
RDC: CH502BC

Rate current: HP4284+42841A or WK3260B+WK3265B

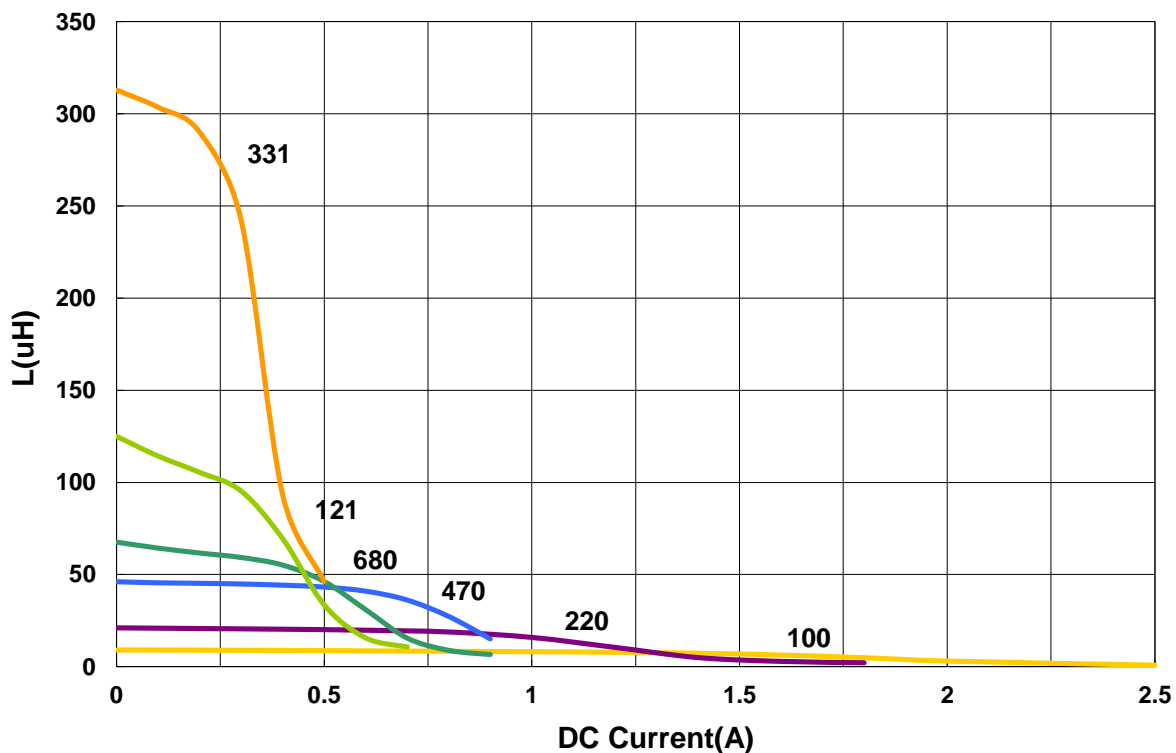
APSC00050530 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

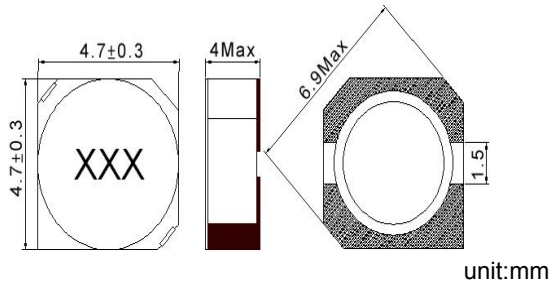


**Power Inductor APSC Series**

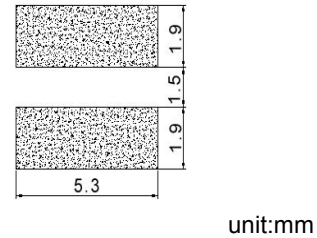
**Automotive  
AEC-Q200**

**APSC00050540 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Irms (A)Typ.	Tolerance (±%)	Marking
APSC000505402R2□S0	2.2	100 kHz, 1 V	0.033	3.5(4.6)	4.3	30	2R2
APSC000505403R3□S0	3.3	100 kHz, 1 V	0.039	2.7(3.4)	3.6	30	3R3
APSC000505404R7□S0	4.7	100 kHz, 1 V	0.053	2.4(3.0)	3	30	4R7
APSC000505406R8□S0	6.8	100 kHz, 1 V	0.06	2.0(2.6)	2.8	30	6R8
APSC00050540100□S0	10	100 kHz, 1 V	0.15	1.5(2.0)	1.6	20,30	100
APSC00050540150□S0	15	100 kHz, 1 V	0.21	1.2(1.6)	1.35	20,30	150
APSC00050540220□S0	22	100 kHz, 1 V	0.27	1.0(1.4)	1	20,30	220

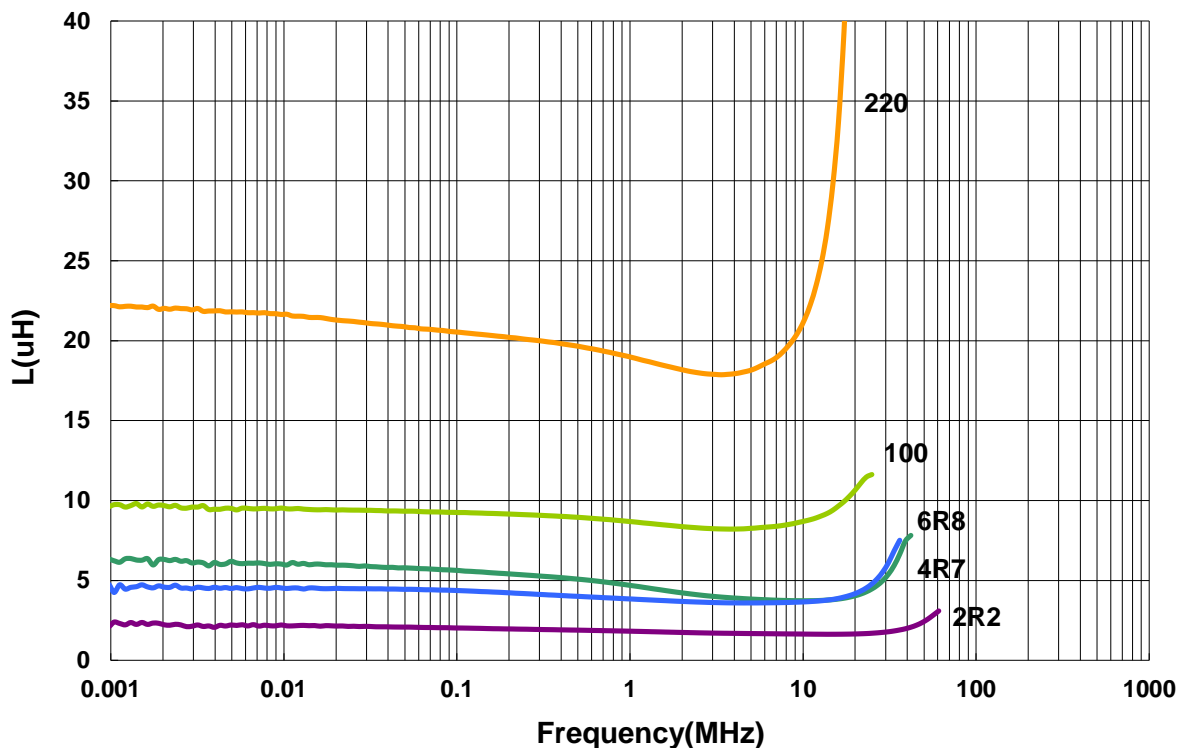
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Rate current: HP4284+42841A or WK3260B+WK3265B

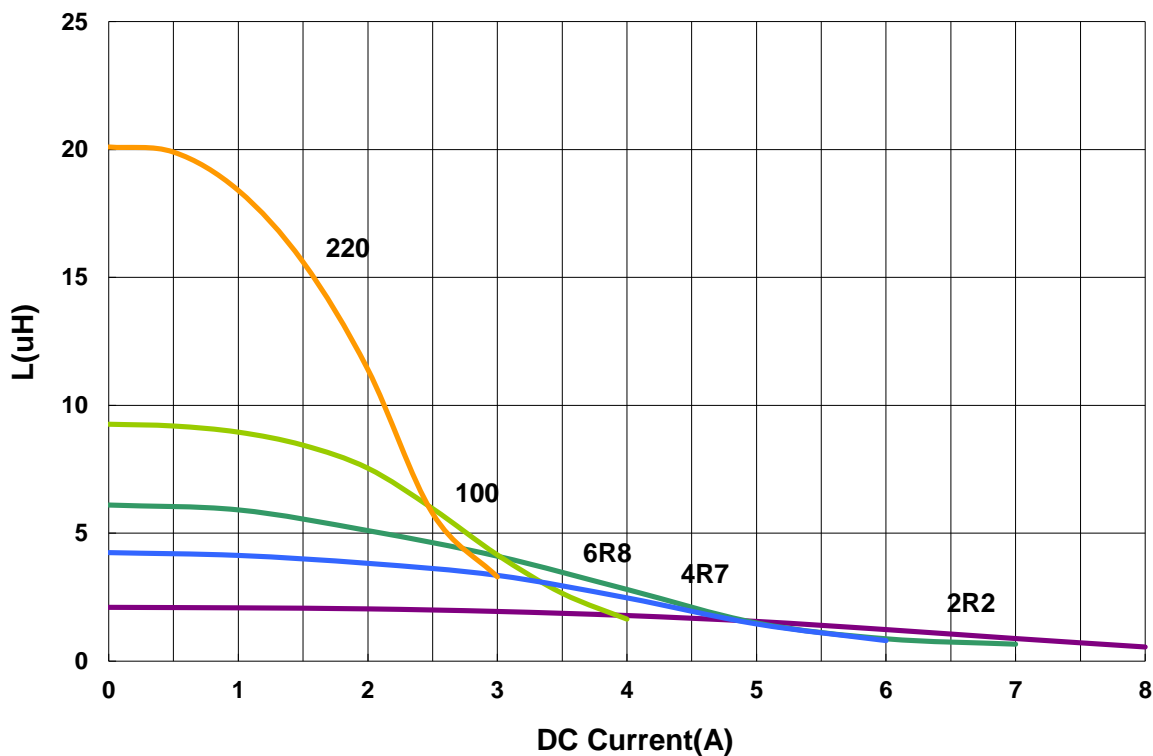
APSC00050540 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



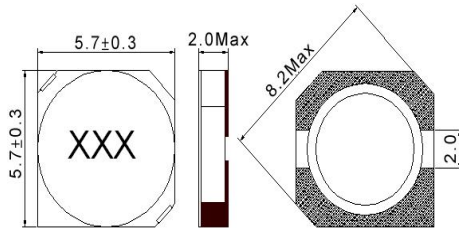


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

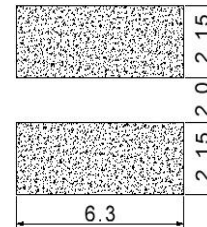
**APSC00060620 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000606201R0□S0	1	10 kHz,1 V	0.038	2.8(3.5)	30	1R0
APSC000606201R5□S0	1.5	10 kHz,1 V	0.038	2.5(3.0)	30	1R5
APSC000606202R0□S0	2	10 kHz,1 V	0.045	2.1(2.6)	30	2R0
APSC000606202R2□S0	2.2	10 kHz,1 V	0.048	2.0(2.5)	30	2R2
APSC000606203R3□S0	3.3	10 kHz,1 V	0.056	1.7(2.0)	30	3R3
APSC000606204R1□S0	4.1	10 kHz,1 V	0.057	1.55(1.9)	30	4R1
APSC000606204R7□S0	4.7	10 kHz,1 V	0.076	1.35(1.7)	30	4R7
APSC000606205R4□S0	5.4	10 kHz,1 V	0.076	1.2(1.5)	30	5R4
APSC000606206R2□S0	6.2	10 kHz,1 V	0.096	1.1(1.4)	30	6R2
APSC000606206R8□S0	6.8	10 kHz,1 V	0.100	1.0(1.3)	30	6R8
APSC000606208R9□S0	8.9	10 kHz,1 V	0.116	0.95(1.25)	30	8R9
APSC00060620100□S0	10	10 kHz,1 V	0.124	0.9(1.2)	20,30	100
APSC00060620120□S0	12	10 kHz,1 V	0.153	0.9(1.0)	30	120
APSC00060620150□S0	15	10 kHz,1 V	0.196	0.8(0.91)	20,30	150
APSC00060620180□S0	18	10 kHz,1 V	0.210	0.75(0.9)	30	180
APSC00060620220□S0	22	10 kHz,1 V	0.290	0.65(0.8)	20,30	220
APSC00060620270□S0	27	10 kHz,1 V	0.330	0.6(0.7)	30	270
APSC00060620330□S0	33	10 kHz,1 V	0.386	0.55(0.65)	20,30	330
APSC00060620390□S0	39	10 KHz,1 V	0.520	0.48(0.6)	30	390
APSC00060620470□S0	47	10 kHz,1 V	0.595	0.44(0.51)	20,30	470
APSC00060620560□S0	56	10 kHz,1 V	0.665	0.4(0.5)	30	560
APSC00060620680□S0	68	10 kHz,1 V	0.840	0.33(0.43)	30	680
APSC00060620820□S0	82	10 kHz,1 V	0.978	0.3(0.41)	30	820
APSC00060620101□S0	100	10 kHz,1 V	1.2	0.25(0.36)	20,30	101

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Rate current: HP4284+42841A or WK3260B+WK3265B

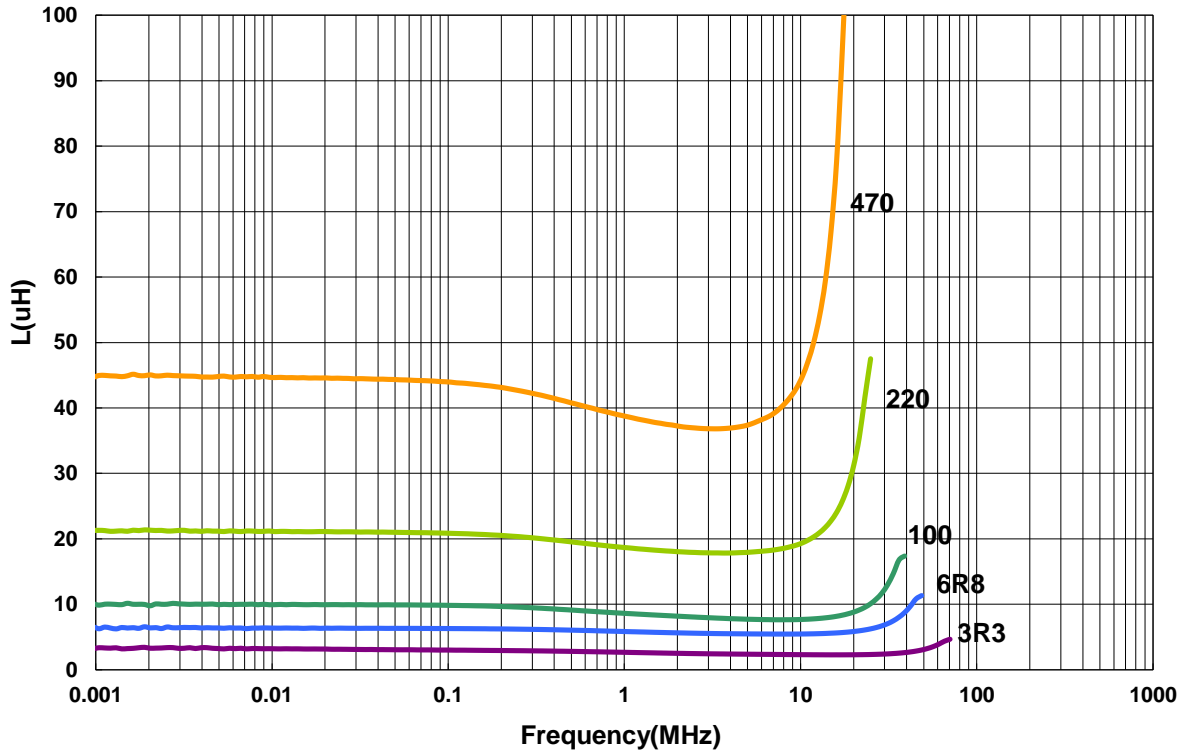
**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

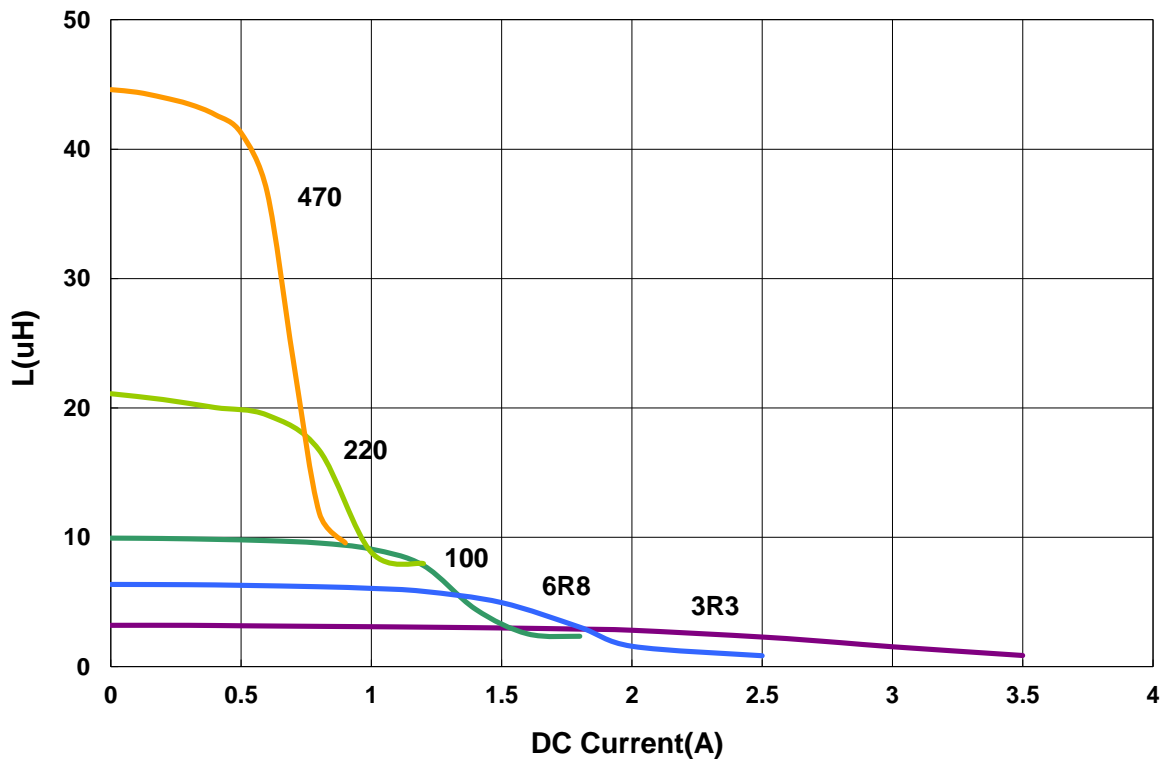
**APSC00060620 Type**

**Characteristics Graph**

**Inductance vs. Frequency Characteristics**



**Inductance vs. DC Current**

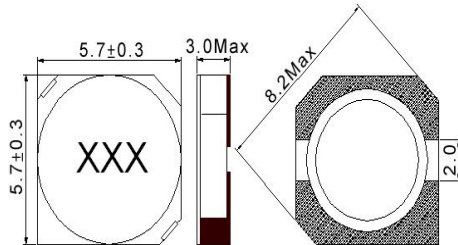


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

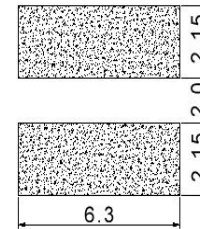
**APSC00060630 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000606301R0□S0	1	10 kHz, 1 V	0.015	3.5(4.2)	30	1R0
APSC000606301R5□S0	1.5	10 kHz, 1 V	0.015	2.8(3.7)	30	1R5
APSC000606302R2□S0	2.2	10 kHz, 1 V	0.018	2.4(3.1)	30	2R2
APSC000606302R5□S0	2.5	10 kHz, 1 V	0.022	2.3(2.7)	30	2R5
APSC000606302R6□S0	2.6	10 kHz, 1 V	0.022	2.2(2.6)	30	2R6
APSC000606302R7□S0	2.7	10 kHz, 1 V	0.024	2.2(2.6)	30	2R7
APSC000606303R0□S0	3	10 kHz, 1 V	0.024	2.2(2.5)	30	3R0
APSC000606303R3□S0	3.3	10 kHz, 1 V	0.027	2.1(2.5)	30	3R3
APSC000606304R2□S0	4.2	10 kHz, 1 V	0.031	2.0(2.2)	30	4R2
APSC000606304R3□S0	4.3	10 kHz, 1 V	0.041	1.8(2.1)	30	4R3
APSC000606304R7□S0	4.7	10 kHz, 1 V	0.038	1.6(2.0)	30	4R7
APSC000606305R0□S0	5	10 kHz, 1 V	0.038	1.5(1.9)	30	5R0
APSC000606305R3□S0	5.3	10 kHz, 1 V	0.038	1.5(1.9)	30	5R3
APSC000606306R2□S0	6.2	10 kHz, 1 V	0.045	1.2(1.8)	30	6R2
APSC000606306R8□S0	6.8	10 kHz, 1 V	0.050	1.2(1.6)	30	6R8
APSC000606308R2□S0	8.2	10 kHz, 1 V	0.053	1.0(1.5)	30	8R2
APSC00060630100□S0	10	10 kHz, 1 V	0.065	0.95(1.4)	20,30	100
APSC00060630120□S0	12	10 kHz, 1 V	0.076	0.9(1.3)	20,30	120
APSC00060630150□S0	15	10 kHz, 1 V	0.103	0.85(1.1)	20,30	150
APSC00060630180□S0	18	10 kHz, 1 V	0.110	0.8(1.0)	30	180
APSC00060630220□S0	22	10 kHz, 1 V	0.122	0.75(0.92)	20,30	220
APSC00060630270□S0	27	10 kHz, 1 V	0.175	0.65(0.82)	30	270
APSC00060630330□S0	33	10 kHz, 1 V	0.189	0.6(0.75)	30	330
APSC00060630390□S0	39	10 kHz, 1 V	0.212	0.55(0.7)	30	390
APSC00060630470□S0	47	10 kHz, 1 V	0.250	0.5(0.62)	20,30	470
APSC00060630560□S0	56	10 kHz, 1 V	0.305	0.48(0.59)	30	560
APSC00060630680□S0	68	10 kHz, 1 V	0.355	0.42(0.52)	30	680
APSC00060630820□S0	82	10 kHz, 1 V	0.463	0.39(0.46)	30	820

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

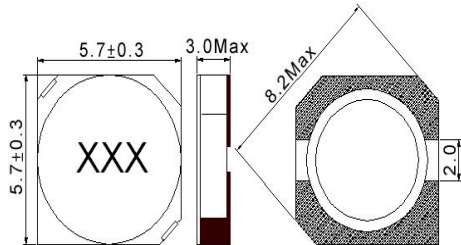
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rate current: The rate current indicates the current when the inductance decreases to 65% over of it's nominal value or D.C.current when the temperature rising  $\Delta T=40^{\circ}\text{C}$  lower, whichever is lower
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate current: HP4284+42841A or WK3260B+WK3265B

**Power Inductor SCDS Series**

**Automotive  
AEC-Q200**

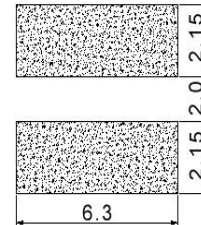
**APSC00060630 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC00060630101□S0	100	10 kHz,1 V	0.52	0.35(0.42)	20,30	101
APSC00060630181□S0	180	10 kHz,1 V	1.05	0.21(0.31)	30	181
APSC00060630221□S0	220	10 kHz,1 V	1.2	0.20(0.30)	30	221
APSC00060630331□S0	330	10 kHz,1 V	1.7	0.15(0.24)	20,30	331
APSC00060630391□S0	390	10 kHz,1 V	1.8	0.13(0.22)	30	391
APSC00060630471□S0	470	10 kHz,1 V	2.5	0.11(0.21)	20,30	471
APSC00060630561□S0	560	10 kHz,1 V	3.2	0.10(0.17)	20,30	561

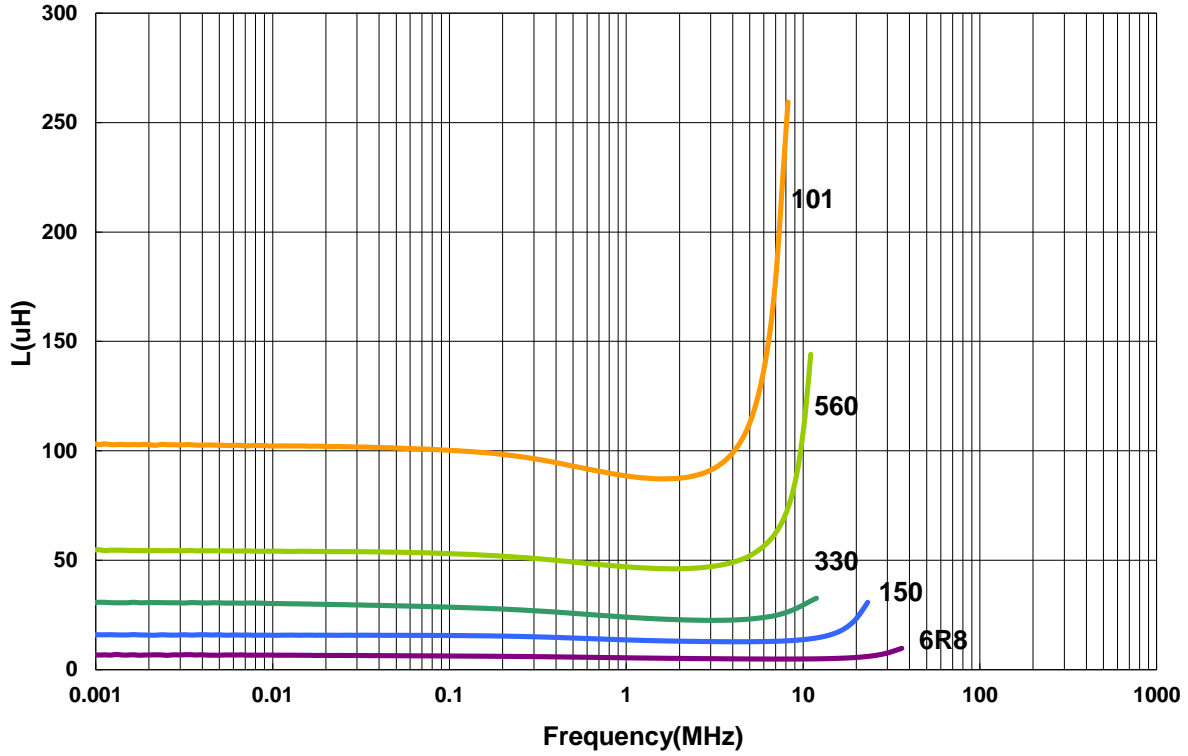
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40 °C ~ 125 °C (Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate current: HP4284+42841A or WK3260B+WK3265B

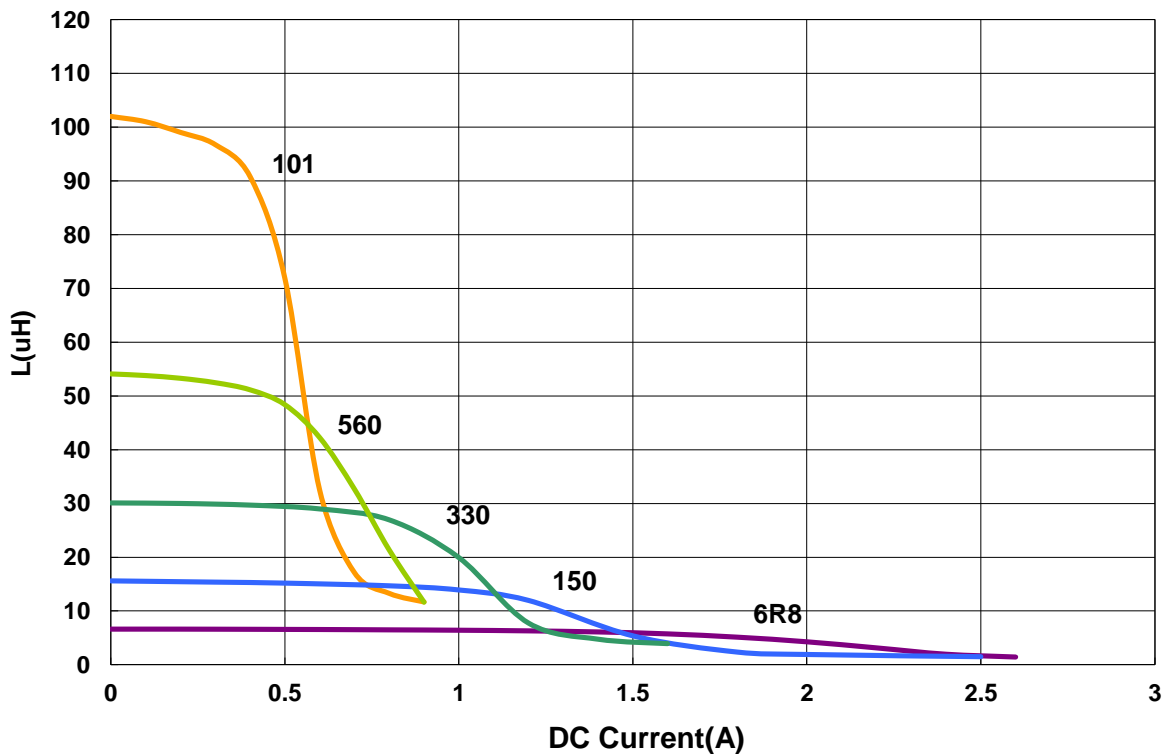
APSC00060630 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

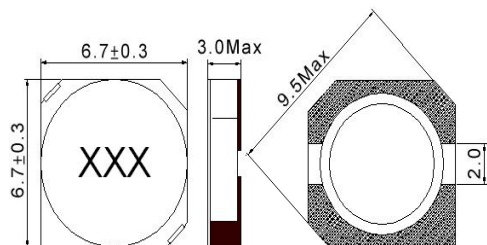


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

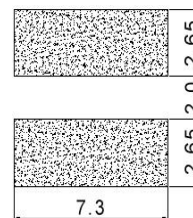
**APSC00070730 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000707301R0□S0	1	10 kHz, 1 V	0.024	3.5(5.3)	30	1R0
APSC000707301R5□S0	1.5	10 kHz, 1 V	0.0195	3.4(4.5)	30	1R5
APSC000707302R2□S0	2.2	10 kHz, 1 V	0.035	3.0(3.4)	30	2R2
APSC000707303R0□S0	3	10 kHz, 1 V	0.024	2.6(3.2)	30	3R0
APSC000707303R3□S0	3.3	10 kHz, 1 V	0.025	2.5(3.1)	30	3R3
APSC000707303R9□S0	3.9	10 kHz, 1 V	0.027	2.3(2.9)	30	3R9
APSC000707304R7□S0	4.7	10 kHz, 1 V	0.031	1.92(2.4)	30	4R7
APSC000707305R0□S0	5	10 kHz, 1 V	0.031	1.74(2.4)	30	5R0
APSC000707306R0□S0	6	10 kHz, 1 V	0.035	1.7(2.25)	30	6R0
APSC000707306R2□S0	6.2	10 kHz, 1 V	0.051	1.4(2.2)	30	6R2
APSC000707306R8□S0	6.8	10 kHz, 1 V	0.050	1.3(2.15)	30	6R8
APSC000707307R3□S0	7.3	10 kHz, 1 V	0.054	1.25(2.1)	30	7R3
APSC000707308R6□S0	8.6	10 kHz, 1 V	0.058	1.2(1.85)	30	8R6
APSC00070730100□S0	10	10 kHz, 1 V	0.065	1.15(1.7)	20,30	100
APSC00070730120□S0	12	10 kHz, 1 V	0.070	1.14(1.5)	20,30	120
APSC00070730150□S0	15	10 kHz, 1 V	0.084	1.12(1.4)	20,30	150
APSC00070730180□S0	18	10 kHz, 1 V	0.095	1.02(1.32)	30	180
APSC00070730220□S0	22	10 kHz, 1 V	0.128	0.87(1.2)	30	220
APSC00070730270□S0	27	10 kHz, 1 V	0.142	0.82(1.05)	30	270
APSC00070730330□S0	33	10 kHz, 1 V	0.165	0.8(0.97)	30	330
APSC00070730390□S0	39	10 kHz, 1 V	0.210	0.79(0.9)	30	390
APSC00070730470□S0	47	10 kHz, 1 V	0.238	0.7(0.8)	20,30	470
APSC00070730560□S0	56	10 kHz, 1 V	0.277	0.6(0.73)	30	560
APSC00070730680□S0	68	10 kHz, 1 V	0.304	0.55(0.65)	30	680
APSC00070730820□S0	82	10 kHz, 1 V	0.390	0.48(0.6)	30	820
APSC00070730101□S0	100	10 kHz, 1 V	0.535	0.43(0.54)	30	101
APSC00070730121□S0	120	10 kHz, 1 V	0.60	0.36(0.45)	20,30	121
APSC00070730221□S0	220	10 kHz, 1 V	1.3	0.27(0.34)	20,30	221

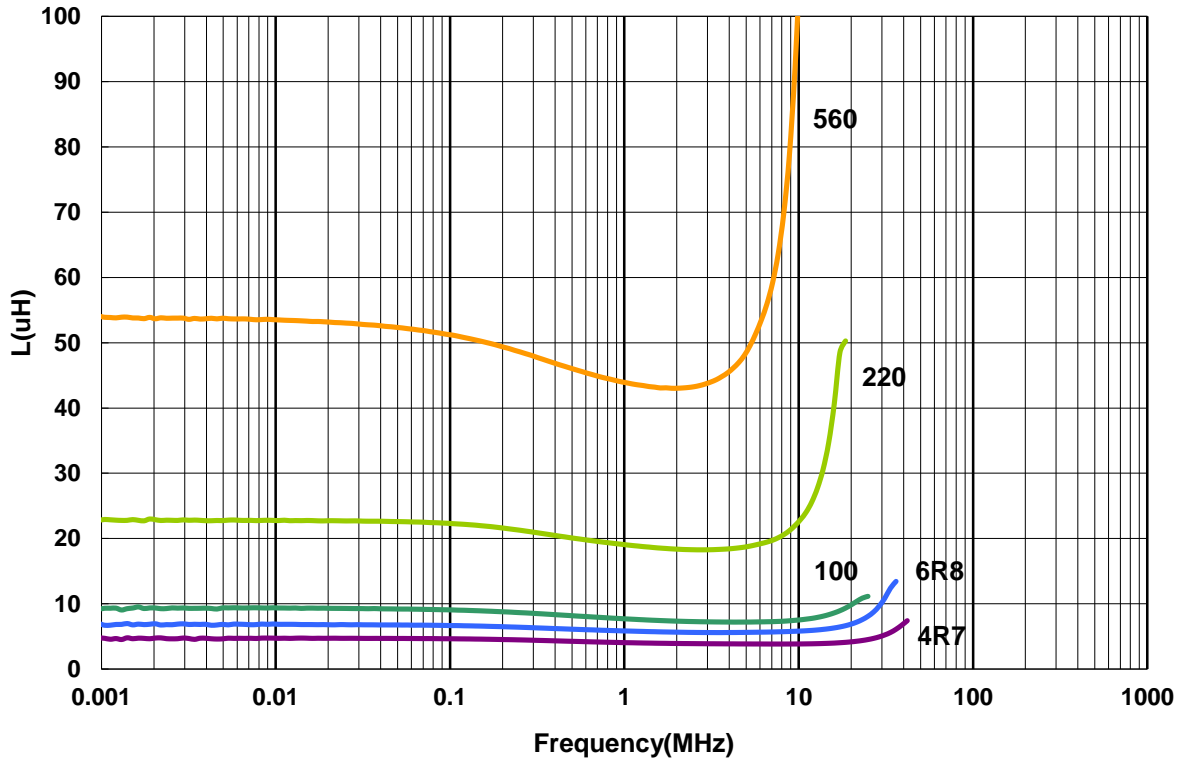
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate current: HP4284+42841A or WK3260B+WK3265B

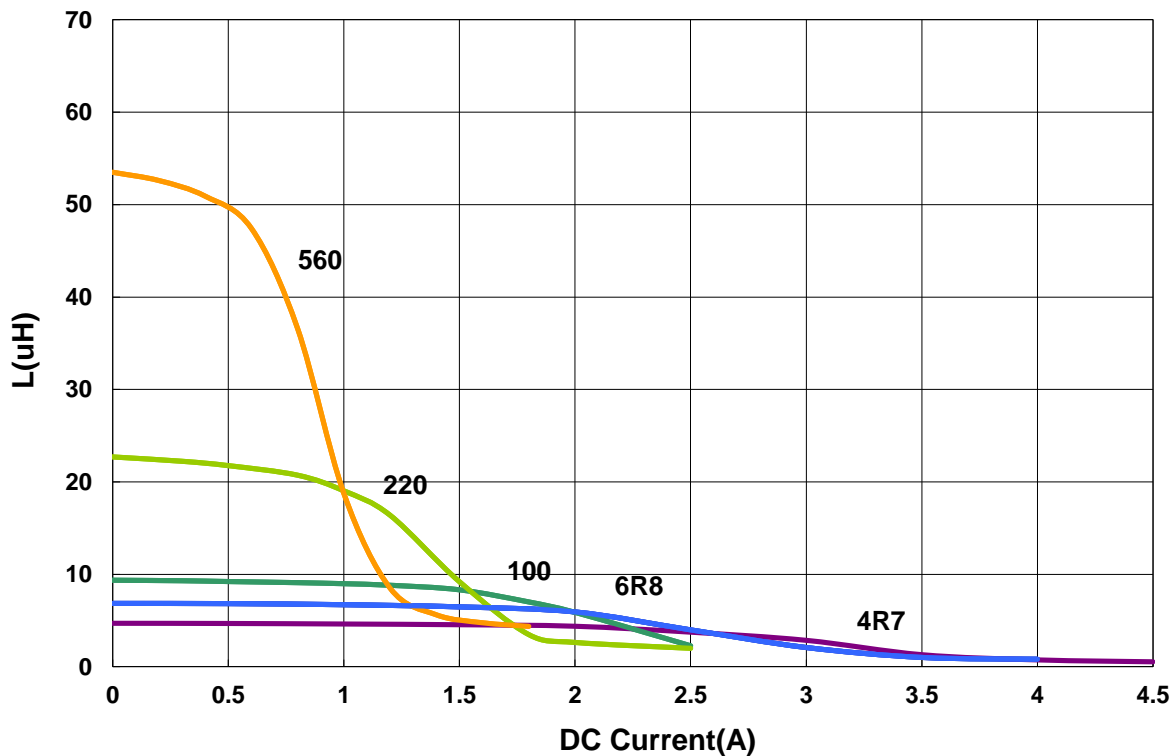
APSC00070730 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



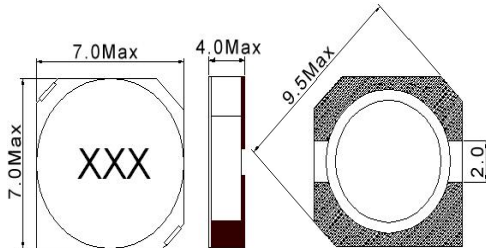


Power Inductor APSC Series

Automotive  
AEC-Q200

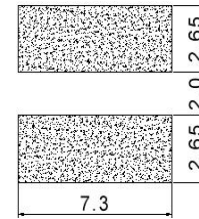
APSC00070740 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Max(Typ)	Tolerance (±%)	Marking
APSC000707402R2□S0	2.2	10 kHz,0.1 V	0.018	3.8(4.7)	30	2R2
APSC000707402R7□S0	2.7	10 kHz,0.1 V	0.002	3.2(4.0)	30	2R7
APSC000707403R3□S0	3.3	10 kHz,0.1 V	0.023	3.0(3.8)	30	3R3
APSC000707404R7□S0	4.7	10 kHz,0.1 V	0.025	2.7(3.4)	30	4R7
APSC000707405R0□S0	5	10 kHz,0.1 V	0.026	2.5(3.1)	30	5R0
APSC000707405R6□S0	5.6	10 kHz,0.1 V	0.027	2.3(3.0)	30	5R6
APSC000707406R2□S0	6.2	10 kHz,0.1 V	0.027	1.8(2.8)	30	6R2
APSC000707406R8□S0	6.8	10 kHz,0.1 V	0.032	1.7(2.7)	30	6R8
APSC000707407R4□S0	7.4	10 kHz,0.1 V	0.032	1.7(2.5)	30	7R4
APSC000707408R7□S0	8.7	10 kHz,0.1 V	0.034	1.7(2.4)	30	8R7
APSC00070740100□S0	10	10 kHz,0.1 V	0.041	1.6(2.2)	20,30	100
APSC00070740120□S0	12	10 kHz,0.1 V	0.053	1.5(1.9)	30	120
APSC00070740150□S0	15	10 kHz,0.1 V	0.057	1.4(1.8)	20,30	150
APSC00070740180□S0	18	10 kHz,0.1 V	0.092	1.25(1.6)	30	180
APSC00070740220□S0	22	10 kHz,0.1 V	0.096	1.1(1.5)	20,30	220
APSC00070740270□S0	27	10 kHz,0.1 V	0.109	0.9(1.2)	30	270
APSC00070740330□S0	33	10 kHz,0.1 V	0.124	0.85(1.1)	20,30	330
APSC00070740390□S0	39	10 kHz,0.1 V	0.138	0.8(1.1)	20,30	390
APSC00070740470□S0	47	10 kHz,0.1 V	0.150	0.7(1.0)	20,30	470
APSC00070740560□S0	56	10 kHz,0.1 V	0.202	0.65(0.9)	30	560
APSC00070740680□S0	68	10 kHz,0.1 V	0.234	0.6(0.8)	20,30	680
APSC00070740820□S0	82	10 kHz,0.1 V	0.324	0.55(0.7)	30	820
APSC00070740101□S0	100	10 kHz,0.1 V	0.358	0.5(0.65)	20,30	101
APSC00070740561□S0	560	10 kHz,0.1 V	1.8	0.2(0.25)	30	561

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Rate Current: HP4284+42841A or WK3260B+WK3265B



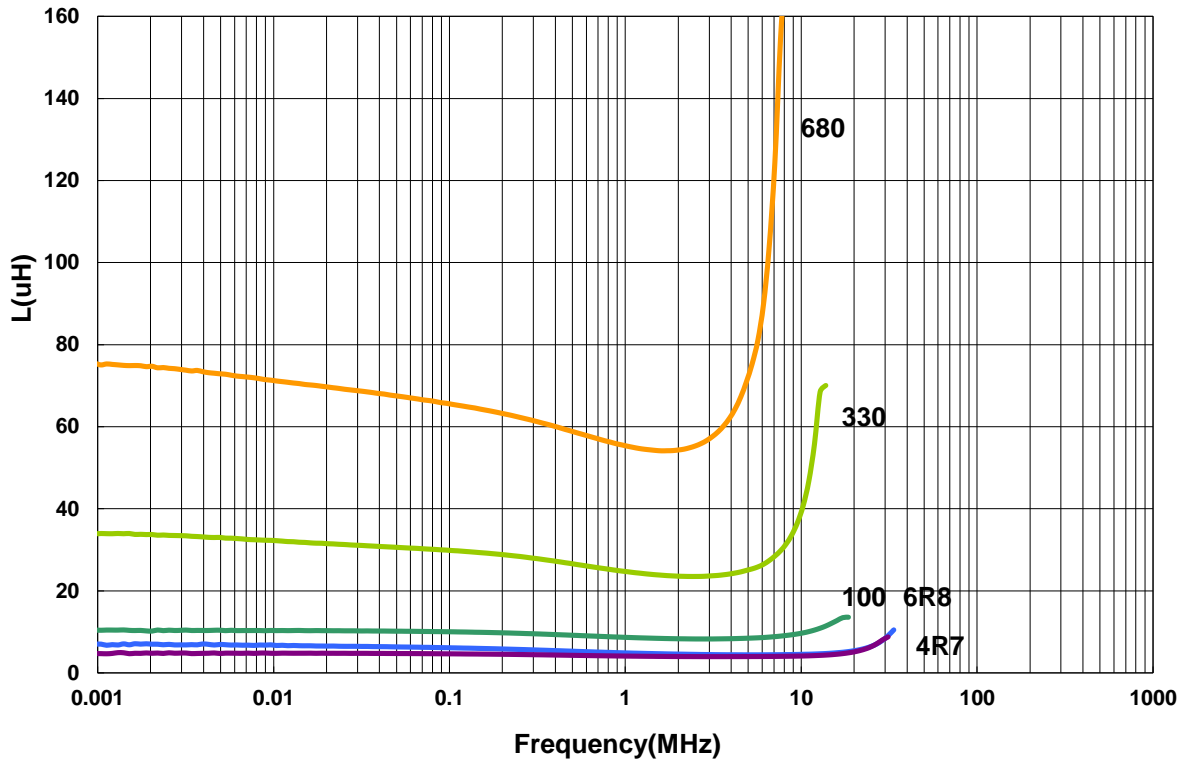
**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

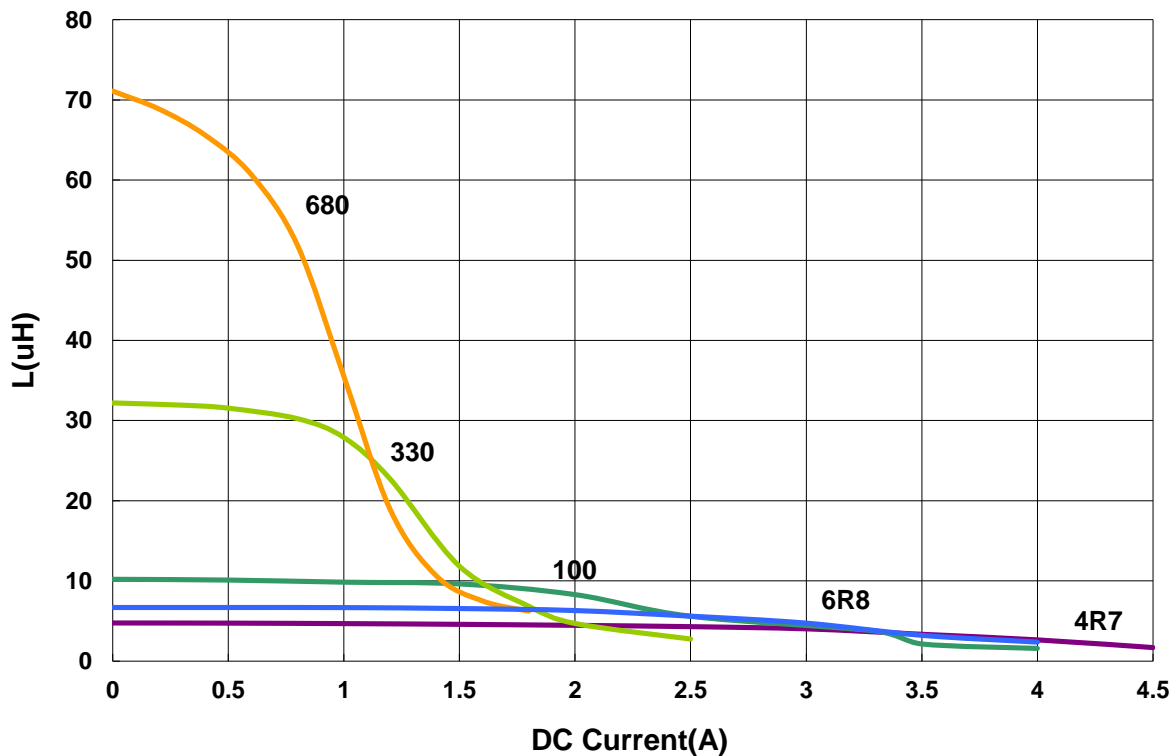
**APSC00070740 Type**

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

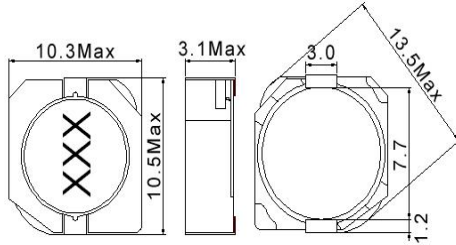


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

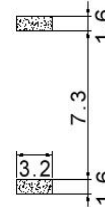
**APSC00101131 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC001011314R7□00	4.7	100 kHz, 1 V	0.03	4.65	30	4R7
APSC001011316R8□00	6.8	100 kHz, 1 V	0.035	3.84	30	6R8
APSC00101131100□00	10	100 kHz, 1 V	0.059	3.18	20,30	100
APSC00101131150□00	15	100 kHz, 1 V	0.091	2.6	20,30	150
APSC00101131330□00	33	100 kHz, 1 V	0.202	1.74	20,30	330
APSC00101131470□00	47	100 kHz, 1 V	0.299	1.43	20,30	470
APSC00101131560□00	56	100 kHz, 1 V	0.325	0.9	20,30	560

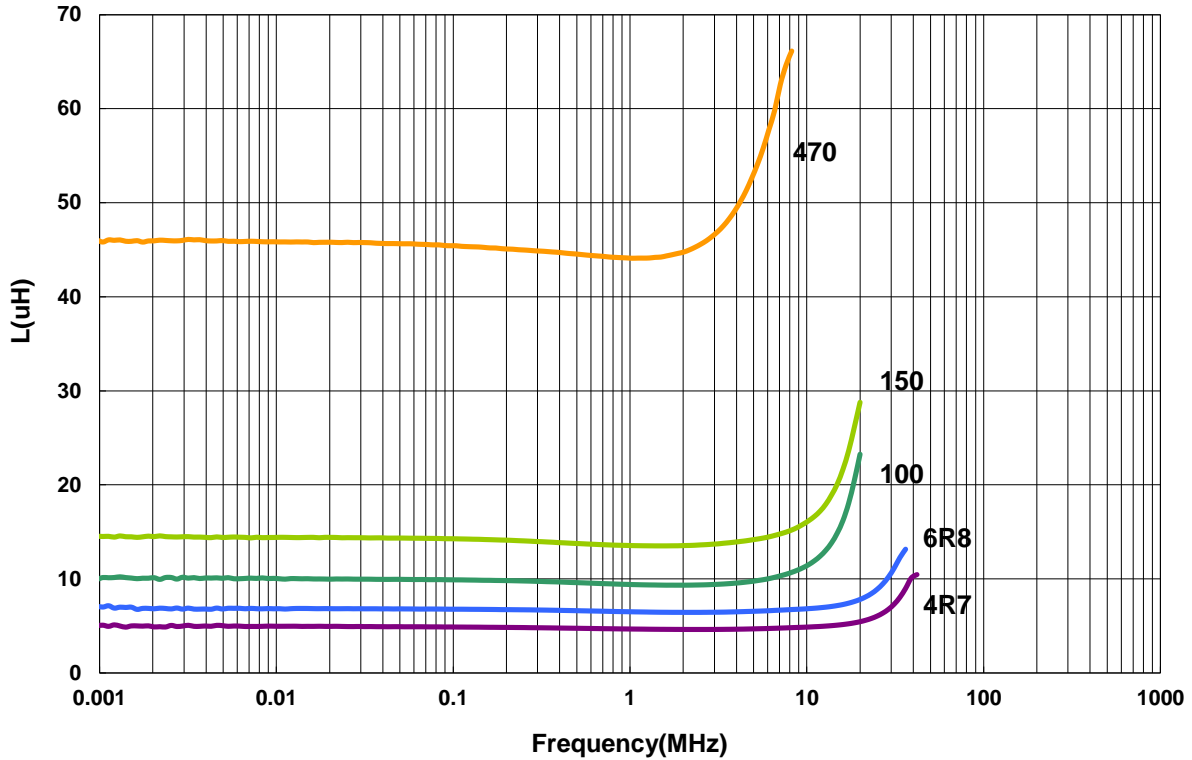
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Isat: HP4284+42841A or WK3260B+WK3265B

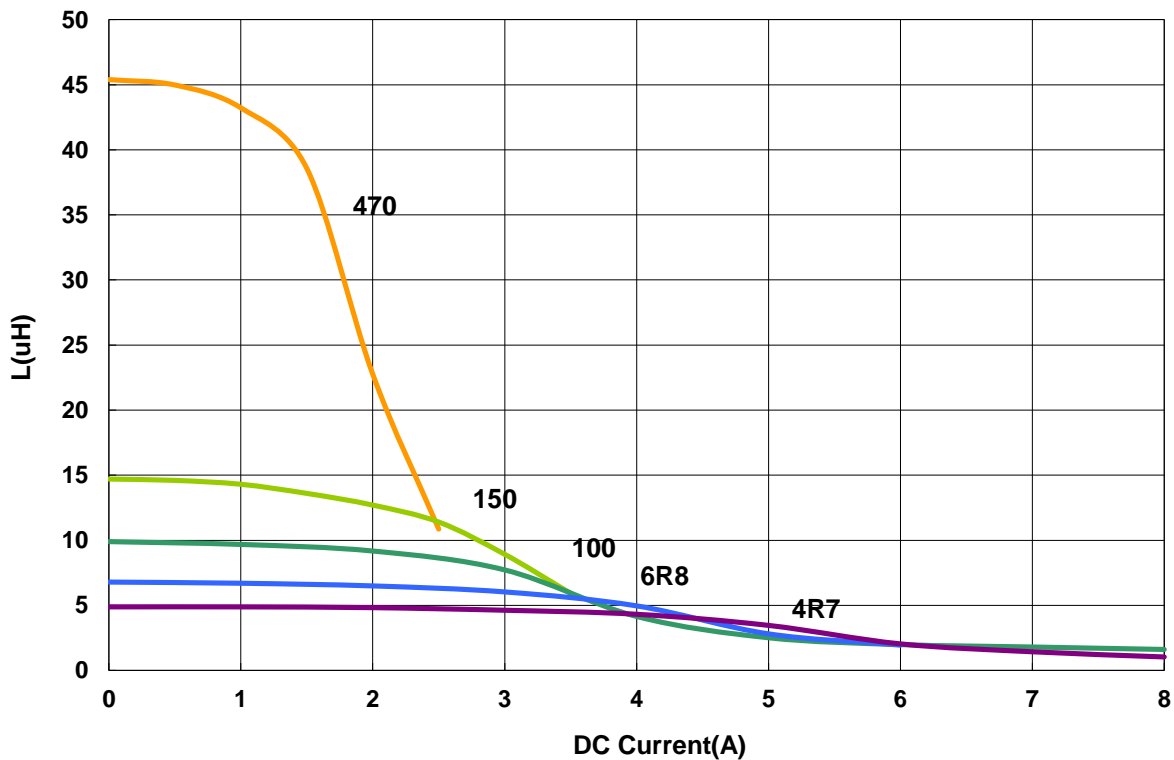
APSC00101131 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

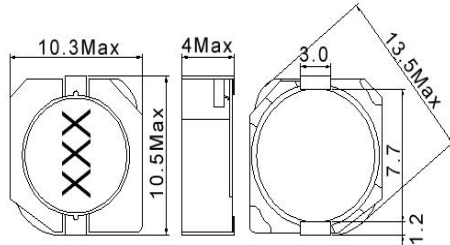


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

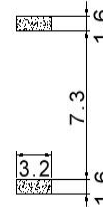
**APSC00101140 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC001011401R5□00	1.5	100 kHz,1 V	0.0081	10	30	1R5
APSC001011402R2□00	2.2	100 kHz,1 V	0.0105	7.5	20,30	2R2
APSC001011402R5□00	2.5	100 kHz,1 V	0.0105	7.5	30	2R5
APSC001011403R3□00	3.3	100 kHz,1 V	0.013	6	20,30	3R3
APSC001011403R8□00	3.8	100 kHz,1 V	0.013	6	20,30	3R8
APSC001011404R7□00	4.7	100 kHz,1 V	0.018	5.7	20,30	4R7
APSC001011405R2□00	5.2	100 kHz,1 V	0.022	5.5	30	5R2
APSC001011405R6□00	5.6	100 kHz,1 V	0.027	5	30	5R6
APSC001011406R8□00	6.8	100 kHz,1 V	0.027	5	20,30	6R8
APSC001011407R0□00	7	100 kHz,1 V	0.027	4.8	20,30	7R0
APSC001011408R2□00	8.2	100 kHz,1 V	0.033	4.5	20,30	8R2
APSC00101140100□00	10	100 kHz,1 V	0.035	4.4	20,30	100
APSC00101140150□00	15	100 kHz,1 V	0.05	3.6	20,30	150
APSC00101140180□00	18	100 kHz,1 V	0.07	3.5	20,30	180
APSC00101140220□00	22	100 kHz,1 V	0.073	2.9	20,30	220
APSC00101140270□00	27	100 kHz,1 V	0.09	2.5	20,30	270
APSC00101140330□00	33	100 kHz,1 V	0.093	2.3	20,30	330
APSC00101140390□00	39	100 kHz,1 V	0.128	2.1	20,30	390
APSC00101140470□00	47	100 kHz,1 V	0.128	2.1	20,30	470
APSC00101140560□00	56	100 kHz,1 V	0.213	1.6	20,30	560
APSC00101140680□00	68	100 kHz,1 V	0.213	1.5	20,30	680
APSC00101140820□00	82	100 kHz,1 V	0.28	1.35	20,30	820
APSC00101140101□00	100	100 kHz,1 V	0.304	1.35	20,30	101
APSC00101140151□00	150	100 kHz,1 V	0.506	1.15	20,30	151
APSC00101140201□00	200	100 kHz,1 V	0.756	0.92	20,30	201
APSC00101140221□00	220	100 kHz,1 V	0.756	0.92	20,30	221
APSC00101140331□00	330	100 kHz,1 V	1.09	0.7	20,30	331
APSC00101140471□00	470	100 kHz,1 V	1.6	0.5	20,30	471
APSC00101140561□00	560	100 kHz,1 V	2.1	0.4	20,30	561

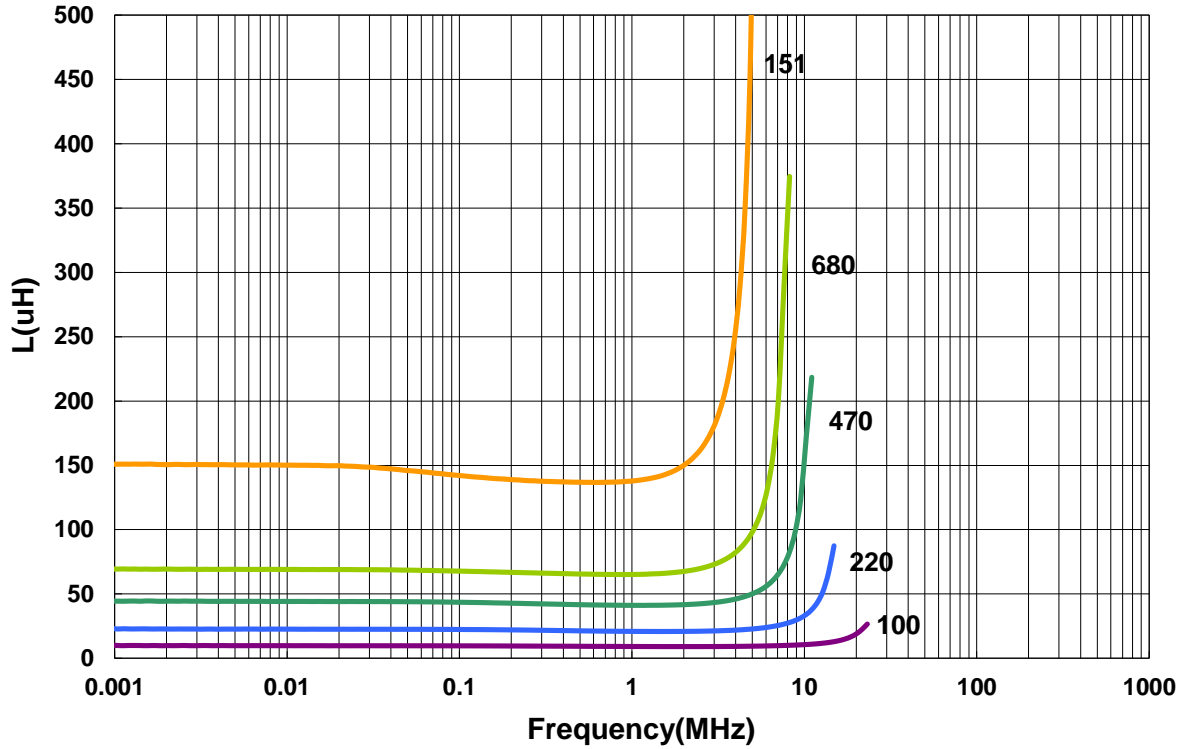
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Isat: HP4284+42841A or WK3260B+WK3265B

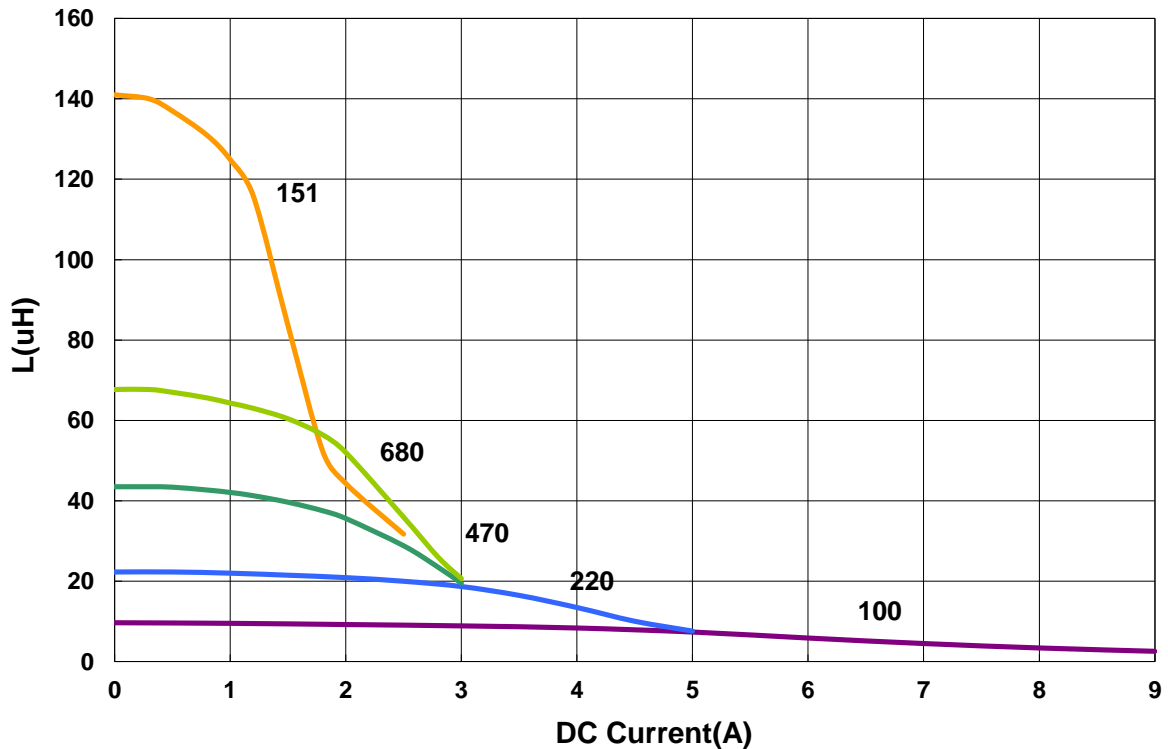
APSC00101140 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

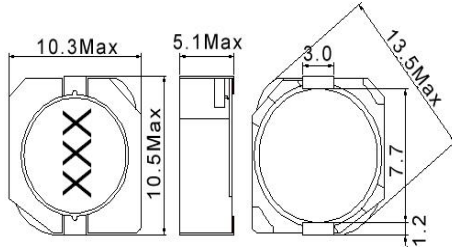


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

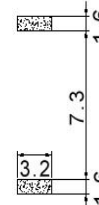
**APSC00101151 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC00101151R80□00	0.8	100 kHz,1 V	0.0043	13.5	30	R80
APSC001011511R5□00	1.5	100 kHz,1 V	0.0058	10.5	30	1R5
APSC001011512R2□00	2.2	100 kHz,1 V	0.011	9.25	30	2R2
APSC001011513R3□00	3.3	100 kHz,1 V	0.0104	7.8	30	3R3
APSC001011514R7□00	4.7	100 kHz,1 V	0.0123	6.4	30	4R7
APSC001011516R8□00	6.8	100 kHz,1 V	0.018	5.4	30	6R8
APSC001011518R2□00	8.2	100 kHz,1 V	0.02	4.85	30	8R2
APSC00101151100□00	10	100 kHz,1 V	0.026	4.45	20,30	100
APSC00101151120□00	12	100 kHz,1 V	0.033	4	20,30	120
APSC00101151150□00	15	100 kHz,1 V	0.041	3.6	20,30	150
APSC00101151180□00	18	100 kHz,1 V	0.046	3.2	20,30	180
APSC00101151220□00	22	100 kHz,1 V	0.061	2.95	20,30	220
APSC00101151270□00	27	100 kHz,1 V	0.069	2.7	20,30	270
APSC00101151330□00	33	100 kHz,1 V	0.084	2.5	20,30	330
APSC00101151390□00	39	100 kHz,1 V	0.106	2.3	20,30	390
APSC00101151470□00	47	100 kHz,1 V	0.13	2	20,30	470
APSC00101151560□00	56	100 kHz,1 V	0.149	1.9Typ	20,30	560
APSC00101151680□00	68	100 kHz,1 V	0.201	1.65	20,30	680
APSC00101151820□00	82	100 kHz,1 V	0.227	1.5	20,30	820
APSC00101151101□00	100	100 kHz,1 V	0.253	1.35	20,30	101
APSC00101151121□00	120	100 kHz,1 V	0.303	1.28	20,30	121
APSC00101151151□00	150	100 kHz,1 V	0.37	1.12	20,30	151
APSC00101151181□00	180	100 kHz,1 V	0.419	1.04	20,30	181
APSC00101151221□00	220	100 kHz,1 V	0.5	0.94	20,30	221
APSC00101151271□00	270	100 kHz,1 V	0.672	0.84	20,30	271
APSC00101151331□00	330	100 kHz,1 V	0.812	0.75	20,30	331
APSC00101151391□00	390	100 kHz,1 V	0.953	0.7	20,30	391
APSC00101151471□00	470	100 kHz,1 V	1.29	0.6	20,30	471
APSC00101151561□00	560	100 kHz,1 V	1.43	0.54	20,30	561
APSC00101151681□00	680	100 kHz,1 V	1.6	0.52	20,30	681
APSC00101151821□00	820	100 kHz,1 V	1.77	0.5	20,30	821
APSC00101151102□00	1000	100 kHz,1 V	1.99	0.48	20,30	102

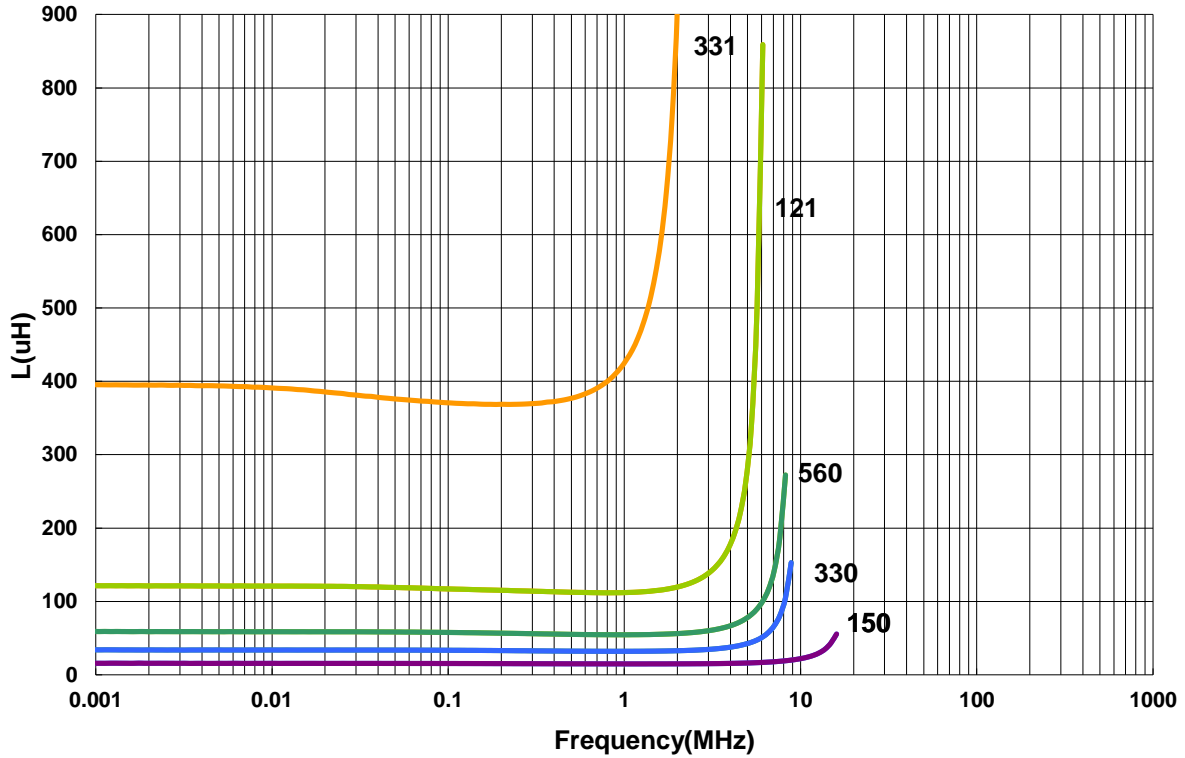
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Isat: HP4284+42841A or WK3260B+WK3265B

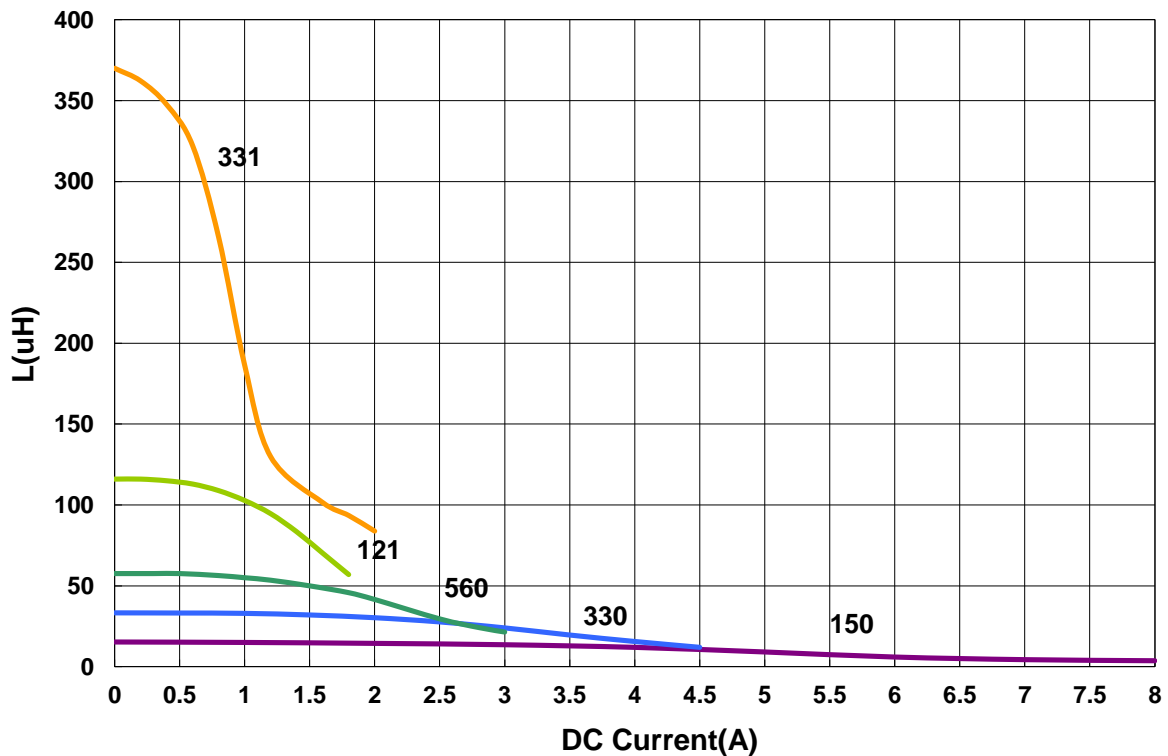
APSC00101151 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

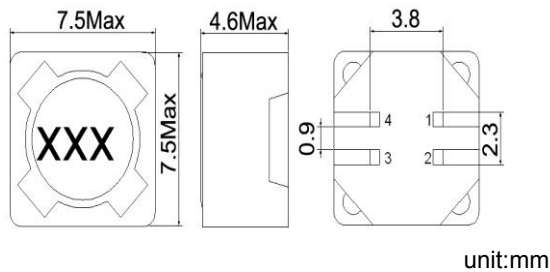


**Power Inductor APSC Series**

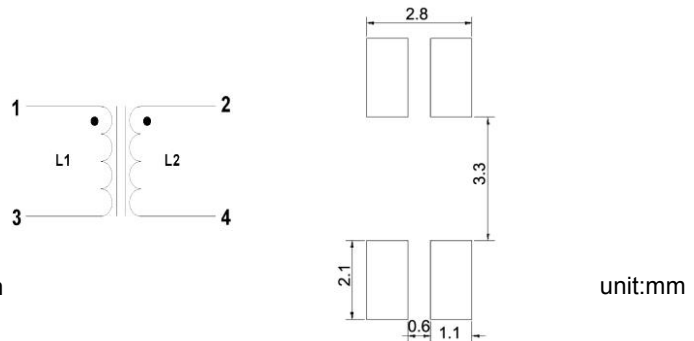
**Automotive  
AEC-Q200**

**APSC00080846 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±20%	Isat(A) Max(Typ)	Irms (A)Max	Tolerance (±%)	Marking
APSC000808462R5□P0	2.5	100 kHz,0.1 V	0.033	5.0(6.3)	2.17	20	2R5
APSC000808464R7□P0	4.7	100 kHz,0.1 V	0.047	3.5(4.6)	1.74	20	4R7
APSC00080846100□P0	10	100 kHz,0.1 V	0.089	2.0(3.0)	1.24	20	100
APSC00080846221□P0	220	100 kHz,0.1 V	1.65	0.5(0.66)	0.30	20	221
APSC00080846821□P0	820	100 kHz,0.1 V	6	0.25(0.35)	0.15	20	821

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

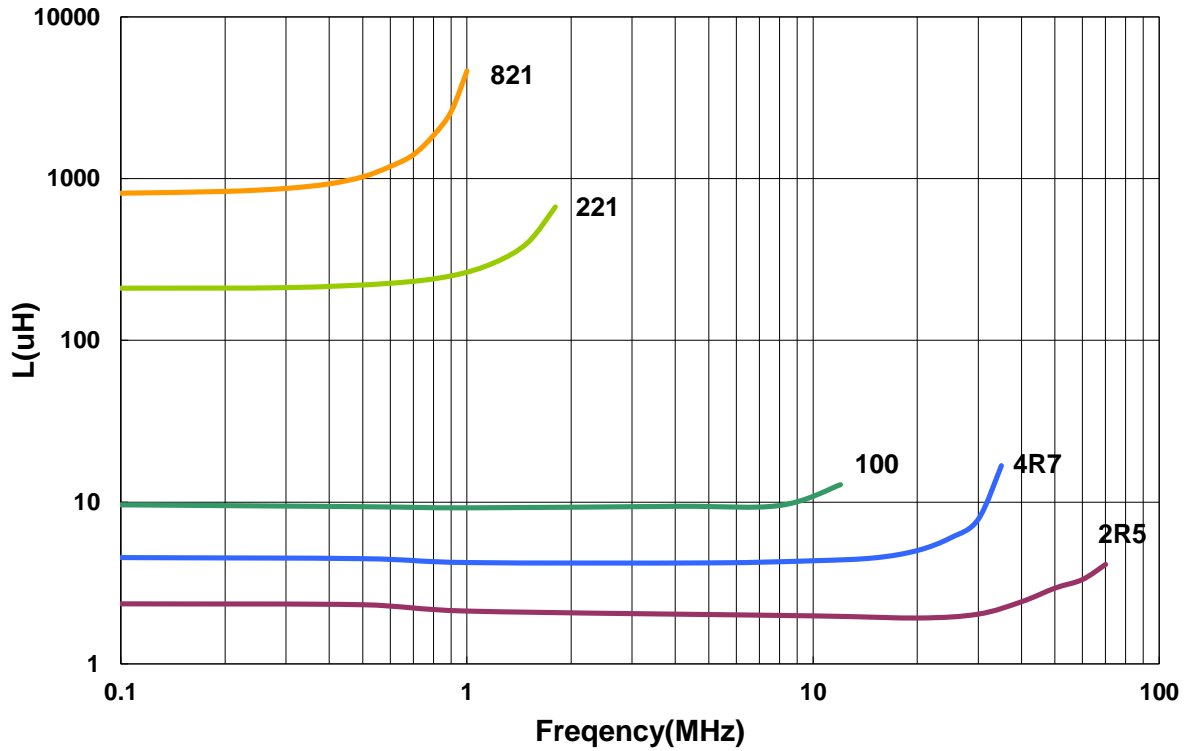
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. The actual use current is suggested not to be out of Isat\*80%
4. I rms for a 40°C temprature rise from 25°C ambient.
5. L,RDC,Isat,I rms: L1 or L2
6. Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Isat: HP4284+42841A or WK3260B+WK3265B



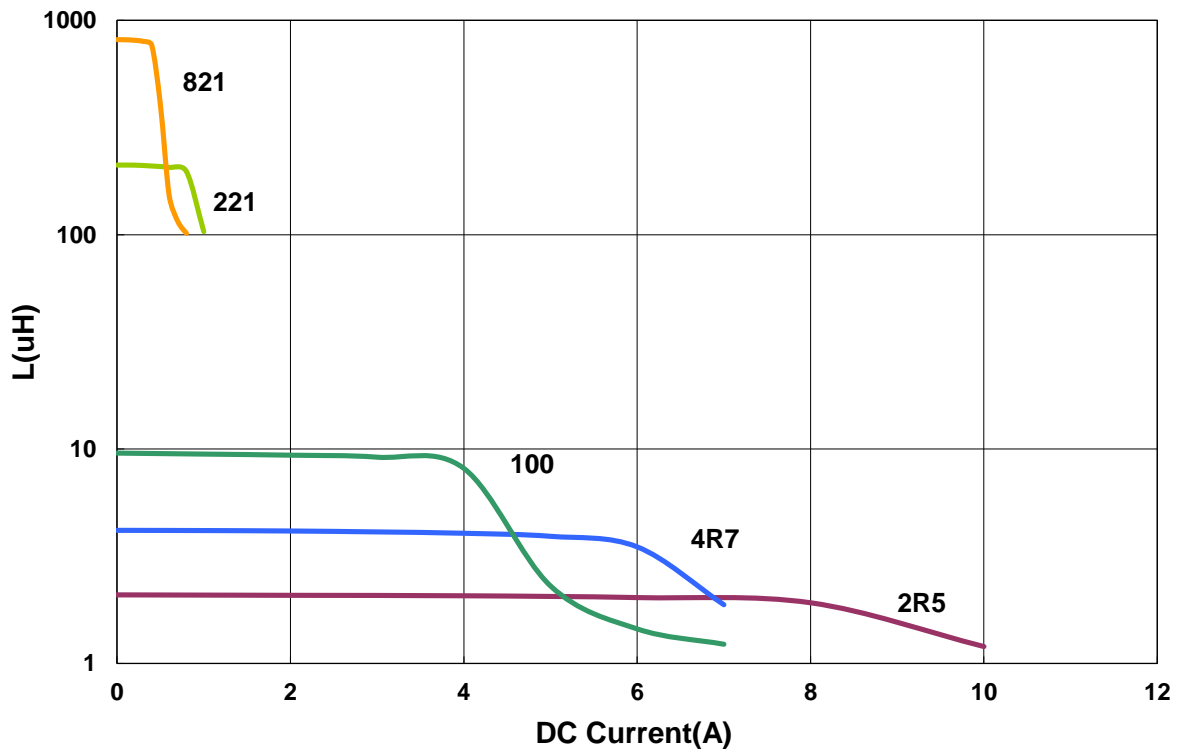
APSC00080846 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

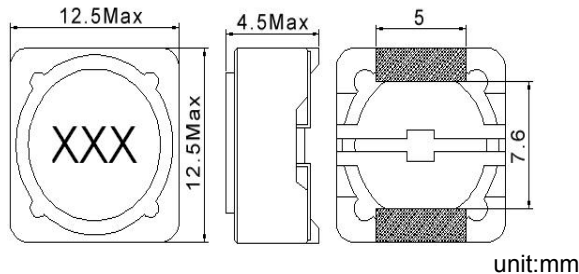


**Power Inductor APSC Series**

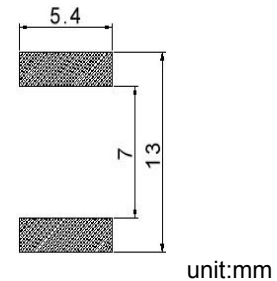
**Automotive  
AEC-Q200**

**APSC00131345 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC001313453R3□00	3.3	100 kHz, 1 V	0.015	6.5	20	3R3
APSC001313453R9□00	3.9	100 kHz, 1 V	0.015	6.5	20	3R9
APSC001313454R7□00	4.7	100 kHz, 1 V	0.018	5.7	20	4R7
APSC001313456R8□00	6.8	100 kHz, 1 V	0.023	4.9	20	6R8
APSC00131345100□00	10	100 kHz, 1 V	0.028	4.5	20	100
APSC00131345120□00	12	100 kHz, 1 V	0.038	4	20	120
APSC00131345150□00	15	100 kHz, 1 V	0.05	3.2	20	150
APSC00131345180□00	18	100 kHz, 1 V	0.057	3.1	20	180
APSC00131345220□00	22	100 kHz, 1 V	0.066	2.9	20	220
APSC00131345270□00	27	100 kHz, 1 V	0.08	2.8	20	270
APSC00131345330□00	33	100 kHz, 1 V	0.097	2.7	20	330
APSC00131345390□00	39	100 kHz, 1 V	0.132	2.1	20	390
APSC00131345470□00	47	100 kHz, 1 V	0.15	1.9	20	470
APSC00131345560□00	56	100 kHz, 1 V	0.19	1.8	20	560
APSC00131345680□00	68	100 kHz, 1 V	0.22	1.5	20	680
APSC00131345820□00	82	100 kHz, 1 V	0.26	1.3	20	820
APSC00131345101□00	100	100 kHz, 1 V	0.308	1.2	20	101
APSC00131345121□00	120	100 kHz, 1 V	0.38	1.1	20	121
APSC00131345151□00	150	100 kHz, 1 V	0.53	0.95	20	151
APSC00131345181□00	180	100 kHz, 1 V	0.62	0.85	20	181
APSC00131345221□00	220	100 kHz, 1 V	0.7	0.8	20	221
APSC00131345271□00	270	100 kHz, 1 V	0.876	0.6	20	271

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: CH502BC  
 Isat: HP4284+42841A or WK3260B+WK3265B

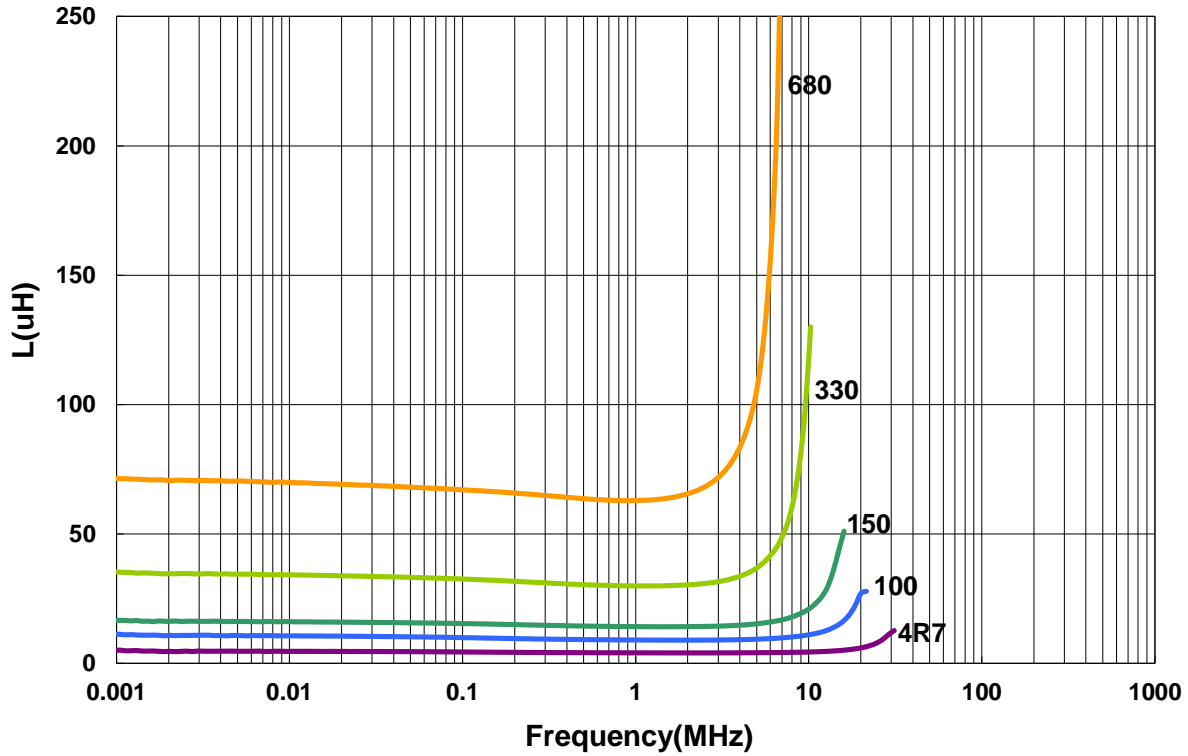
**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

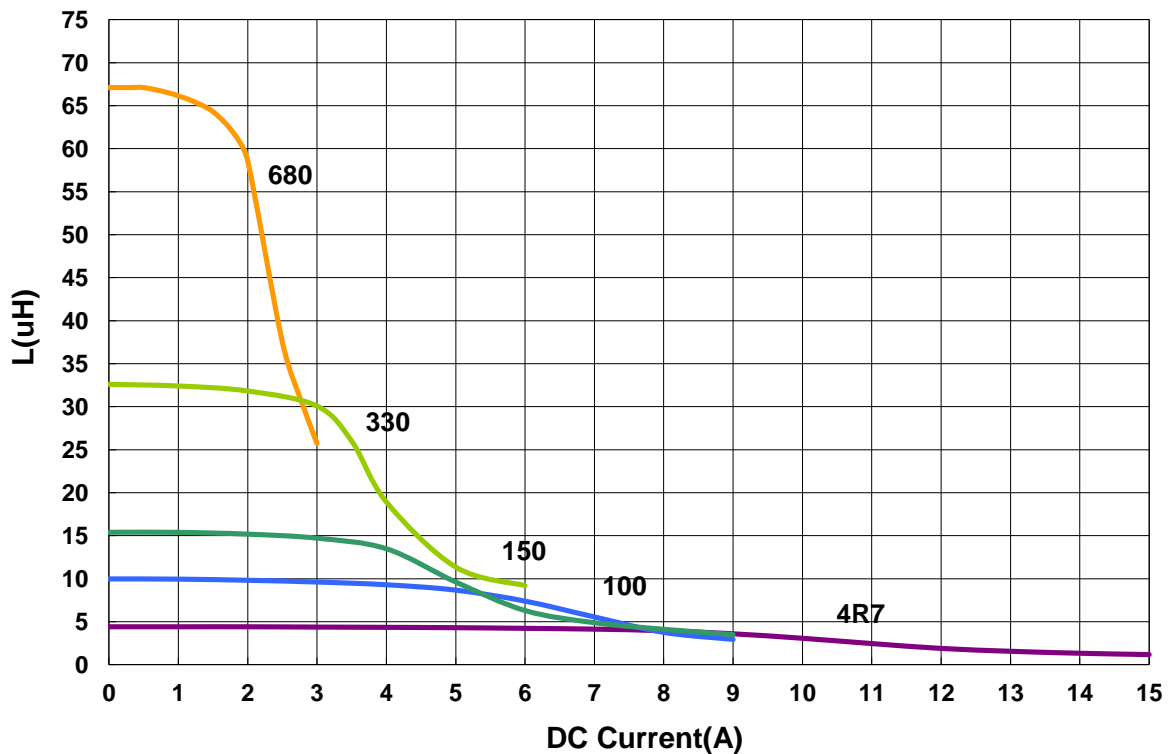
**APSC00131345 Type**

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

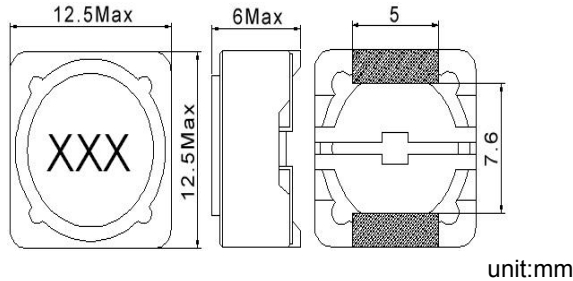


**Power Inductor APSC Series**

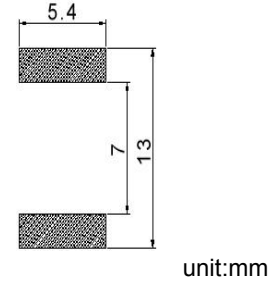
**Automotive  
AEC-Q200**

**APSC00131360 Type**

**Dimensions**



**Recommended Land Pattern**



**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC001313603R3□00	3.3	1 kHz,1 V	0.015	8	20	3R3
APSC001313604R7□00	4.7	1 kHz,1 V	0.018	7.6	20	4R7
APSC001313606R4□00	6.4	1 kHz,1 V	0.018	5.8	20	6R4
APSC001313608R2□00	8.2	1 kHz,1 V	0.025	5	20	8R2
APSC00131360100□00	10	1 kHz,1 V	0.025	4	20	100
APSC00131360120□00	12	1 kHz,1 V	0.027	3.5	20	120
APSC00131360150□00	15	1 kHz,1 V	0.03	3.3	20	150
APSC00131360180□00	18	1 kHz,1 V	0.034	3	20	180
APSC00131360220□00	22	1 kHz,1 V	0.036	2.8	20	220
APSC00131360270□00	27	1 kHz,1 V	0.051	2.3	20	270
APSC00131360330□00	33	1 kHz,1 V	0.057	2.1	20	330
APSC00131360390□00	39	1 kHz,1 V	0.068	2	20	390
APSC00131360470□00	47	1 kHz,1 V	0.075	1.8	20	470
APSC00131360560□00	56	1 kHz,1 V	0.11	1.7	20	560
APSC00131360680□00	68	1 kHz,1 V	0.12	1.5	20	680
APSC00131360820□00	82	1 kHz,1 V	0.14	1.4	20	820
APSC00131360101□00	100	1 kHz,1 V	0.16	1.3	20	101
APSC00131360121□00	120	1 kHz,1 V	0.17	1.1	20	121
APSC00131360151□00	150	1 kHz,1 V	0.23	1	20	151
APSC00131360181□00	180	1 kHz,1 V	0.29	0.9	20	181
APSC00131360221□00	220	1 kHz,1 V	0.4	0.8	20	221
APSC00131360271□00	270	1 kHz,1 V	0.46	0.75	20	271
APSC00131360331□00	330	1 kHz,1 V	0.51	0.68	20	331
APSC00131360391□00	390	1 kHz,1 V	0.69	0.65	20	391
APSC00131360471□00	470	1 kHz,1 V	0.77	0.58	20	471
APSC00131360561□00	560	1 kHz,1 V	0.86	0.54	20	561
APSC00131360681□00	680	1 kHz,1 V	1.2	0.48	20	681
APSC00131360821□00	820	1 kHz,1 V	1.34	0.43	20	821
APSC00131360102□00	1000	1 kHz,1 V	1.53	0.4	20	102
APSC00131360302□00	3000	1 kHz,1 V	6	0.25	20	302

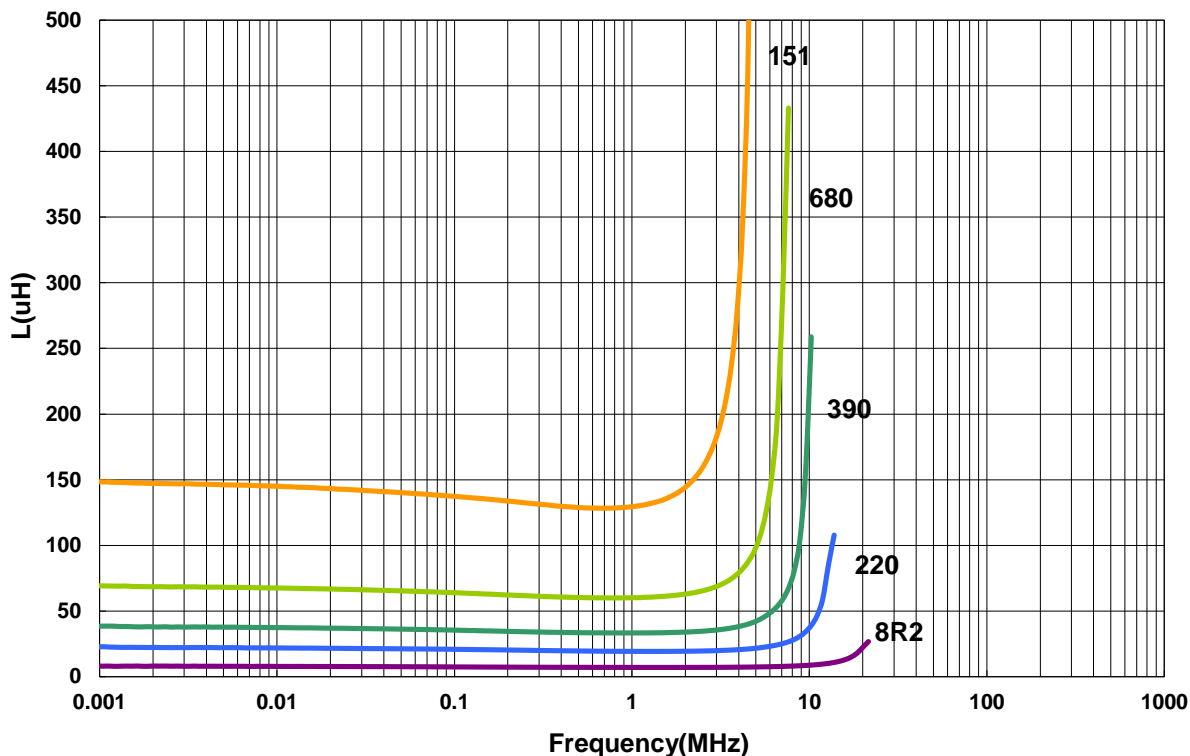
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: CH502BC  
Isat: HP4284+42841A or WK3260B+WK3265B

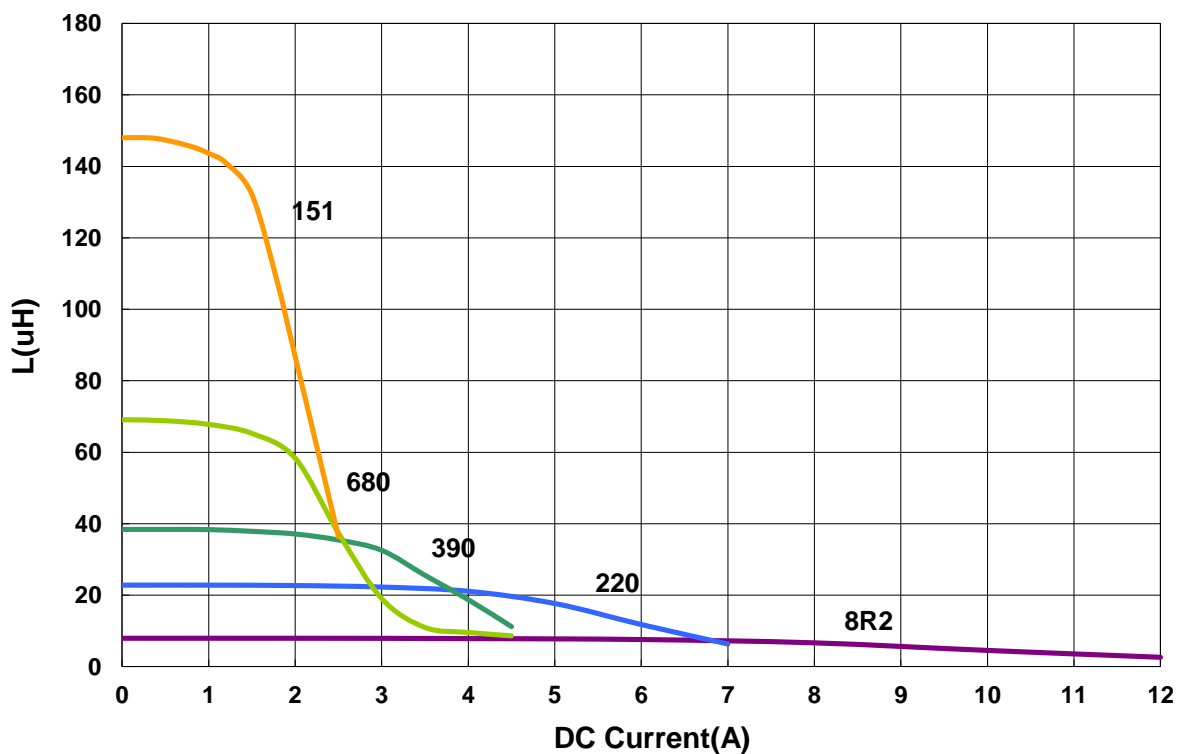
APSC00131360 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

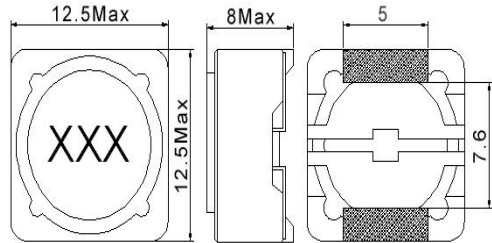


**Power Inductor APSC Series**

**Automotive  
AEC-Q200**

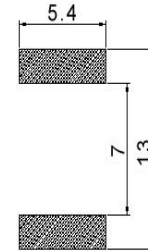
**APSC00131380 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSC001313801R5□00	1.5	100 kHz,1 V	0.008	9.5	30	1R5
APSC001313802R2□00	2.2	100 kHz,1 V	0.0115	8	20,30	2R2
APSC001313803R3□00	3.3	100 kHz,1 V	0.0135	7.5	30	3R3
APSC001313804R7□00	4.7	100 kHz,1 V	0.0158	6.8	20,30	4R7
APSC001313806R1□00	6.1	100 kHz,1 V	0.0176	6.6	20,30	6R1
APSC001313806R8□00	6.8	100 kHz,1 V	0.02	6.2	20,30	6R8
APSC001313807R6□00	7.6	100 kHz,1 V	0.02	5.9	20,30	7R6
APSC00131380100□00	10	1 kHz,1 V	0.0216	5.4	20	100
APSC00131380120□00	12	1 kHz,1 V	0.0243	4.9	20	120
APSC00131380150□00	15	1 kHz,1 V	0.027	4.5	20	150
APSC00131380180□00	18	1 kHz,1 V	0.0392	3.9	20	180
APSC00131380220□00	22	1 kHz,1 V	0.0432	3.6	20	220
APSC00131380270□00	27	1 kHz,1 V	0.0459	3.4	20	270
APSC00131380330□00	33	1 kHz,1 V	0.0648	3	20	330
APSC00131380390□00	39	1 kHz,1 V	0.0729	2.75	20	390
APSC00131380470□00	47	1 kHz,1 V	0.1	2.5	20	470
APSC00131380560□00	56	1 kHz,1 V	0.11	2.35	20	560
APSC00131380680□00	68	1 kHz,1 V	0.14	2.1	20	680
APSC00131380820□00	82	1 kHz,1 V	0.16	1.95	20	820
APSC00131380101□00	100	1 kHz,1 V	0.22	1.7	20	101
APSC00131380121□00	120	1 kHz,1 V	0.25	1.6	20	121
APSC00131380151□00	150	1 kHz,1 V	0.28	1.42	20	151
APSC00131380181□00	180	1 kHz,1 V	0.35	1.3	20	181
APSC00131380221□00	220	1 kHz,1 V	0.39	1.16	20	221
APSC00131380271□00	270	1 kHz,1 V	0.56	1.06	20	271
APSC00131380331□00	330	1 kHz,1 V	0.64	0.95	20	331
APSC00131380391□00	390	1 kHz,1 V	0.7	0.88	20	391
APSC00131380471□00	470	1 kHz,1 V	0.98	0.79	20	471
APSC00131380561□00	560	1 kHz,1 V	1.07	0.73	20	561
APSC00131380681□00	680	1 kHz,1 V	1.46	0.67	20	681
APSC00131380821□00	820	1 kHz,1 V	1.64	0.6	20	821
APSC00131380102□00	1000	1 kHz,1 V	1.82	0.55	20	102

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Measure Equipment:

L: Agilent E4980 or HP4284A

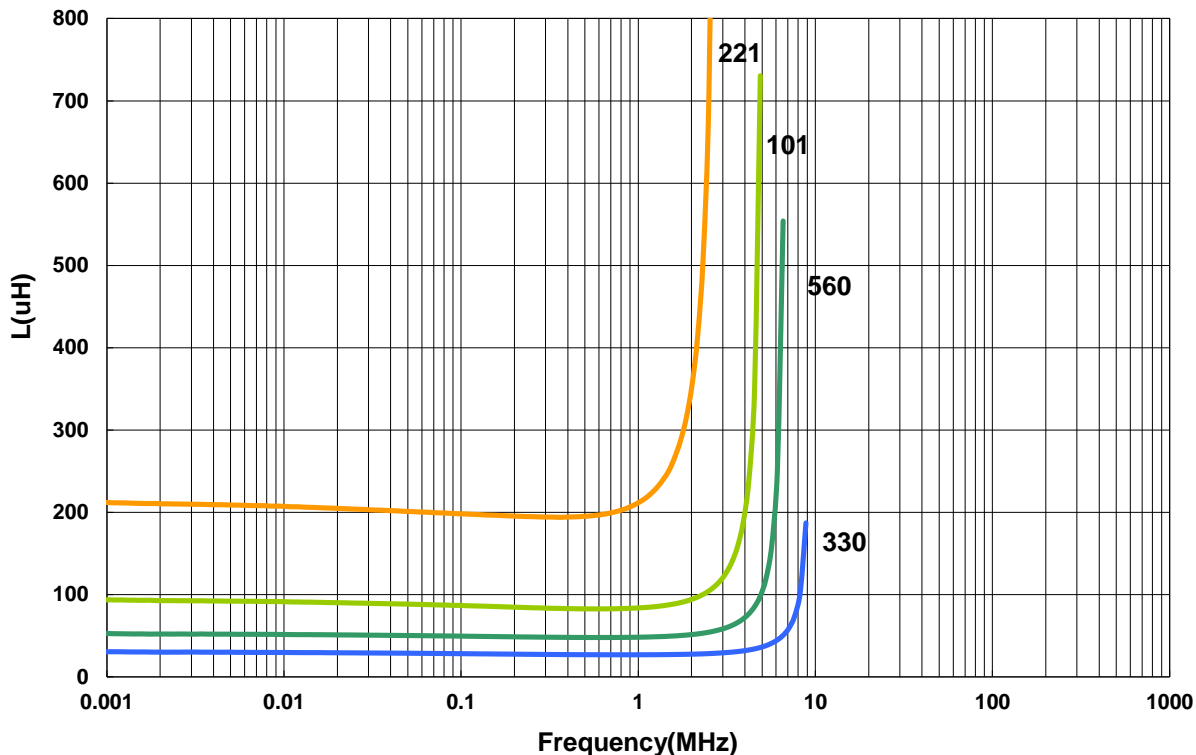
RDC: CH502BC

Isat: HP4284+42841A or WK3260B+WK3265B

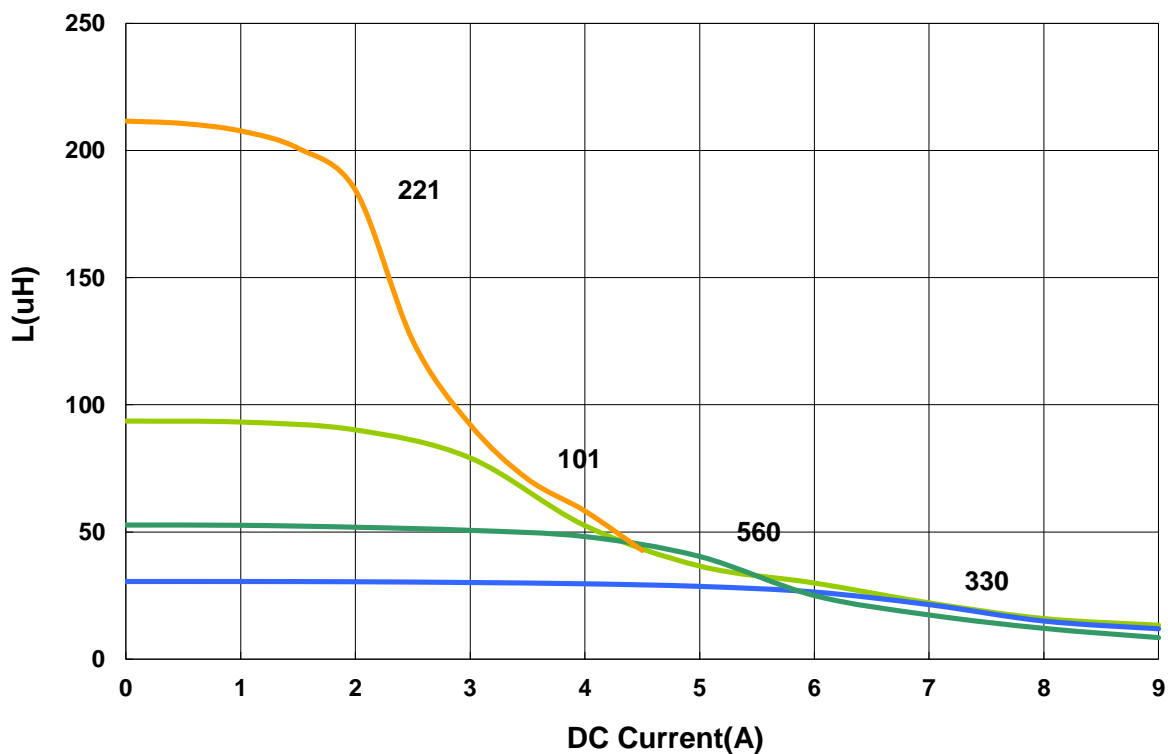
APSC00131380 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

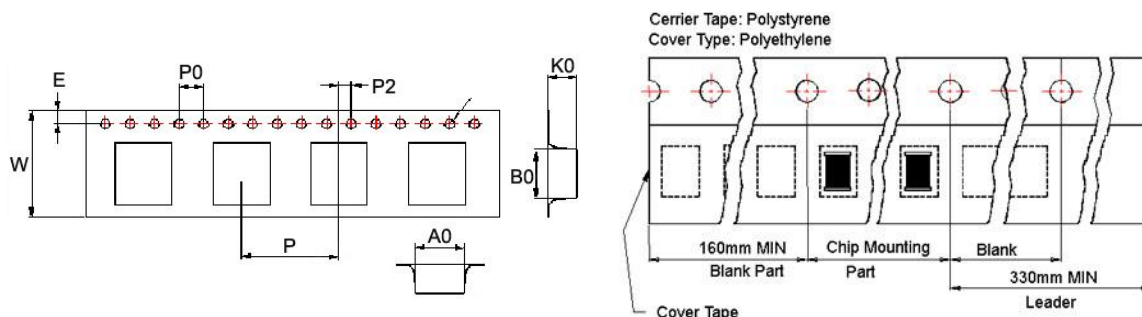


**Power Inductor APSC Series**

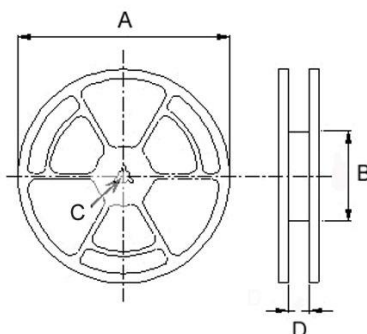
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

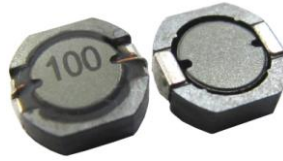
TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	
APSC00030316	3.35	3.35	1.7	1.55	1.75	12	8	4	2	178	60	13	13.2	1000
APSC00040418	4.1	4.1	2.0	1.50	1.75	12	8	4	2	178	60	13	13.2	1000
APSC00040430	4.2	4.2	3.2	1.55	1.75	12	8	4	2	178	60	13	13.2	500
APSC00050220	5.3	5.3	2.4	1.50	1.75	12	8	4	2	330	100	13	13.4	2000
APSC00050530	5.3	5.3	3.4	1.50	1.75	12	8	4	2	330	100	13	13.4	2000
APSC00050540	5.35	5.35	4.1	1.55	1.75	12	8	4	2	330	100	13	13.4	1000
APSC00060620	6.2	6.2	2.2	1.55	1.75	16	12	4	2	330	100	13	13.4	1500
APSC00060630	6.2	6.2	3.1	1.55	1.75	16	12	4	2	330	100	13	17.4	1500
APSC00070730	7.25	7.25	3.35	1.55	1.75	16	12	4	2	330	100	13	17.4	1500
APSC00070740	7.1	7.1	4.1	1.55	1.75	16	12	4	2	330	100	13	17.4	1000
APSC00101131	10.6	10.75	4.2	1.55	1.75	24	16	4	2	300	100	13	24.4	1000
APSC00101140	10.6	10.75	4.2	1.50	1.75	24	16	4	2	330	100	13	24.4	1000
APSC00101151	10.6	10.6	5.0	1.50	1.75	24	16	4	2	330	100	13	24.4	500
APSC00080846	7.6	7.6	5.0	1.55	1.75	16	12	4	2	330	100	13	16.0	1000
APSC00131345	13.0	12.8	5.1	1.55	1.75	24	16	4	2	330	100	13	24.4	500
APSC00131360	12.6	12.6	6.7	1.55	1.75	24	16	4	2	330	100	13	24.4	600
APSC00131380	12.6	12.6	8.7	1.55	1.75	24	16	4	2	330	100	13	24.4	500



**Power Inductor APSR Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Unshield
- Wire Wound
- Ferrite

**Part Numbering**

A	PSR	00	080725	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			050522 5.2x5.0x2.2	R47 0.47	M ±20%	
			080725 7.5x7.4x2.5	1R0 1.0	T ±30%	
			080740 7.5x7.4x4.0	101 100		

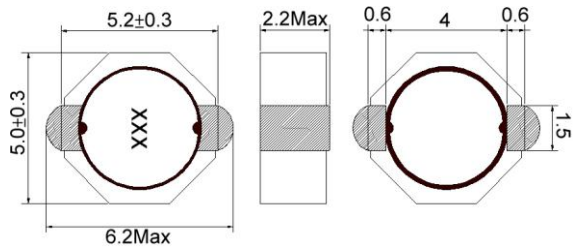
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor APSR Series**

**Automotive  
AEC-Q200**

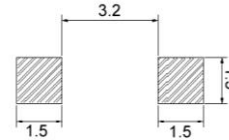
**APSR00050522 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH )	Test Freq.	RDC (mΩ)Max.	Isat (A)	Irms (A)	Tolerance (±%)	Marking
APSR000505221R2□00	1.2	100kHz,1V	25	4.3	3.43	30	1R2
APSR000505221R8□00	1.8	100kHz,1V	32	3.6	3.12	30	1R8
APSR000505223R3□00	3.3	100kHz,1V	54	2.5	2.68	30	3R3
APSR000505224R7□00	4.7	100kHz,1V	81	2.0	2.18	30	4R7
APSR00050522100□00	10	100kHz,1V	160	1.4	1.51	20,30	100
APSR00050522220□00	22	100kHz,1V	320	0.9	1.02	20,30	220
APSR00050522330□00	33	100kHz,1V	490	0.77	0.80	20,30	330

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

L: Agilent E4980 or HP4284A

RDC: Chroma 16502

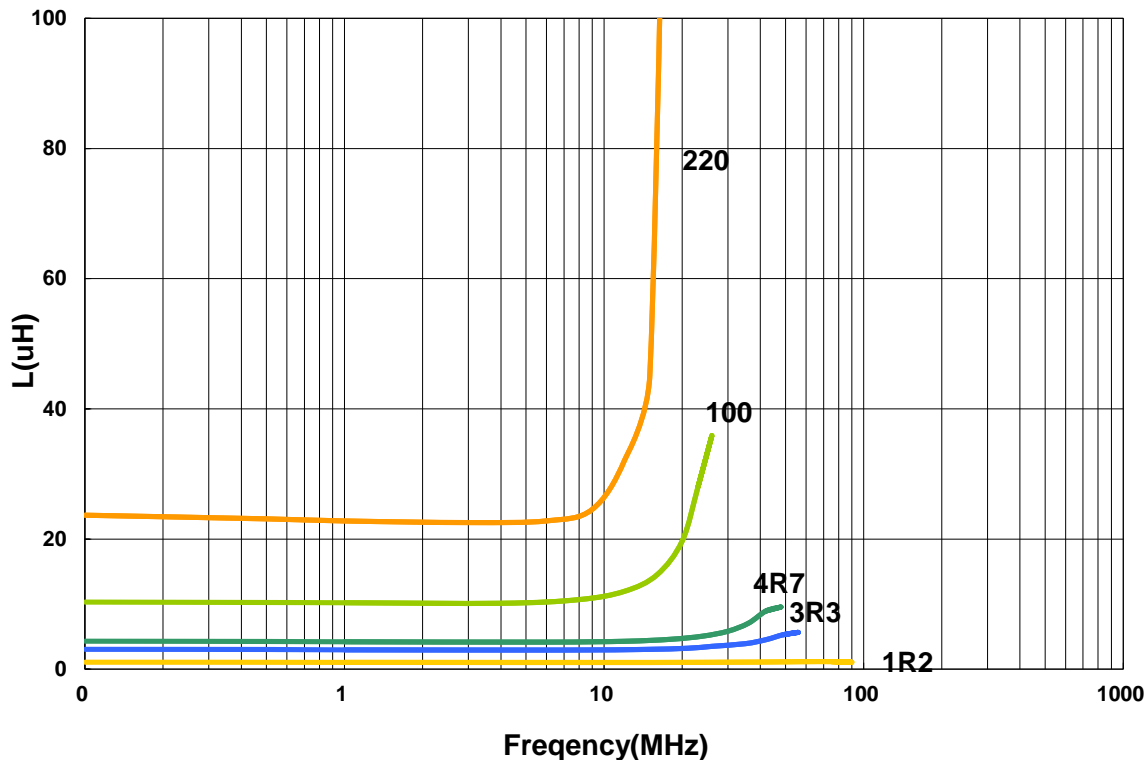
Isat: HP4284A+HP42841A or WK3260B+WK3265B

Irms: Agilent 6641 SYSTEM DC POWER SUPPLY

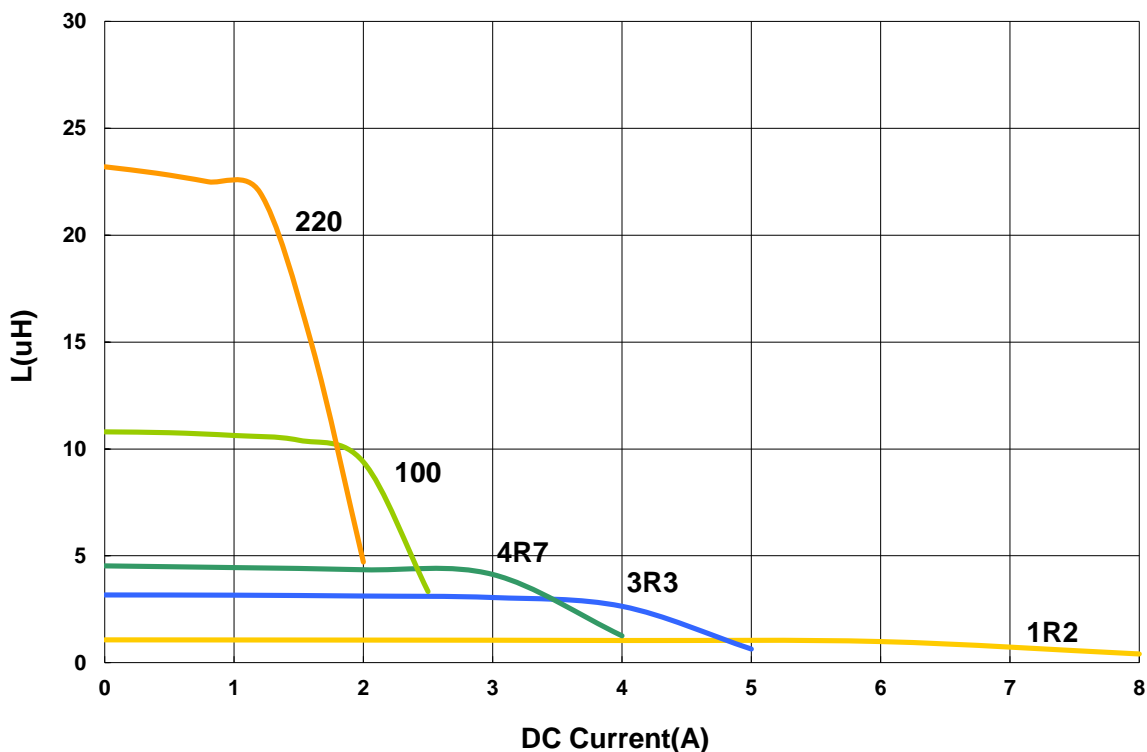
APSR00050522 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

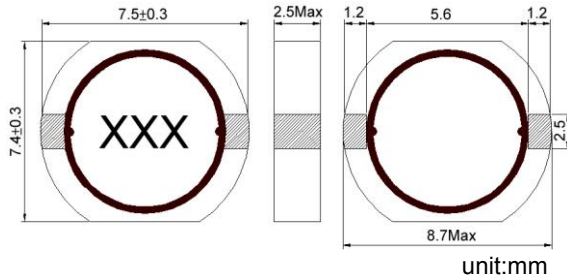


**Power Inductor APSR Series**

**Automotive  
AEC-Q200**

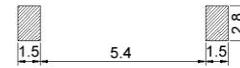
**APSR00080725 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max.	Isat (A)	Irms (A)	Tolerance (±%)	Marking
APSR000807251R0□00	1.0	100kHz,1V	14.28	2.20	6.22	30	1R0
APSR000807251R5□00	1.5	100kHz,1V	19.70	2.08	5.00	30	1R5
APSR000807252R2□00	2.2	100kHz,1V	24.09	1.86	4.40	30	2R2
APSR000807253R3□00	3.3	100kHz,1V	41.2	1.80	3.70	30	3R3
APSR000807254R7□00	4.7	100kHz,1V	49.7	1.80	3.20	30	4R7
APSR000807255R6□00	5.6	100kHz,1V	58.9	1.39	2.90	20,30	5R6
APSR000807256R8□00	6.8	100kHz,1V	66.3	1.32	2.70	20,30	6R8
APSR00080725100□00	10	100kHz,1V	92.4	1.25	1.90	20,30	100
APSR00080725150□00	15	100kHz,1V	170	1.20	1.70	20,30	150
APSR00080725220□00	22	100kHz,1V	210	1.13	1.52	20,30	220
APSR00080725330□00	33	100kHz,1V	320	0.91	1.10	20,30	330
APSR00080725470□00	47	100kHz,1V	490	0.85	0.95	20,30	470

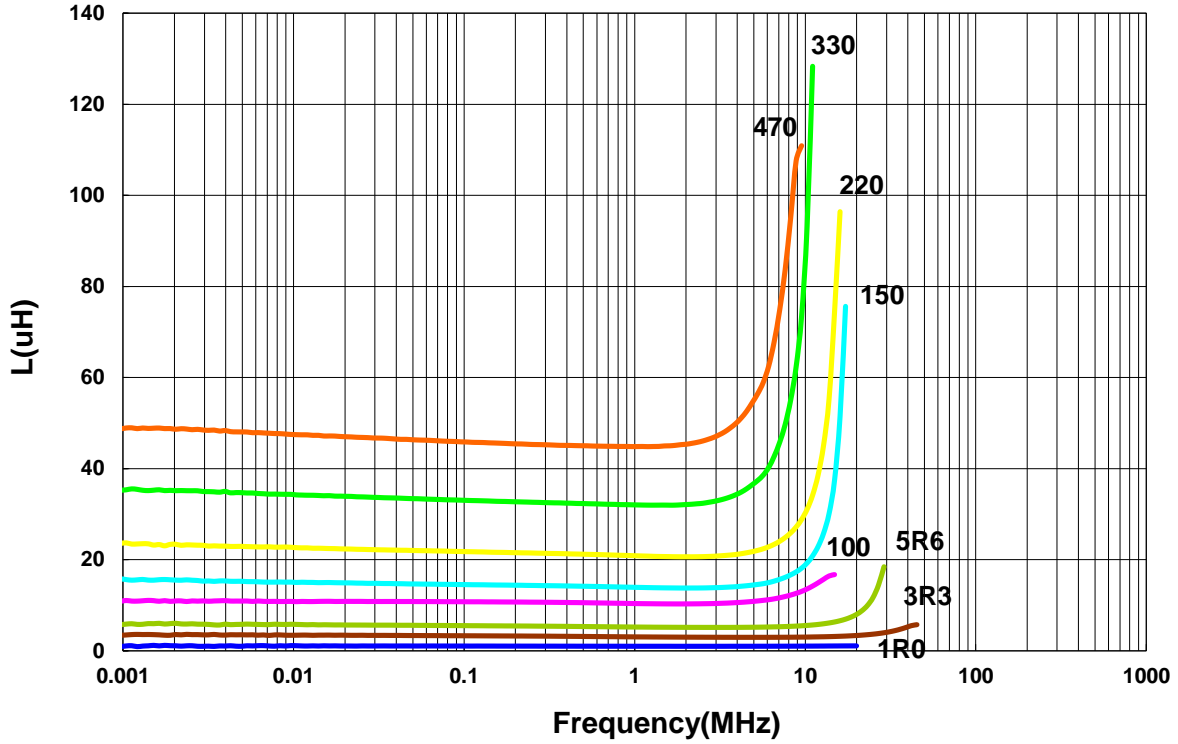
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment:  
L: Agilent E4980 or HP4284A  
RDC: Chroma 16502  
Isat: HP4284A+HP42841A or WK3260B+WK3265B  
Irms: Agilent 6641 SYSTEM DC POWER SUPPLY

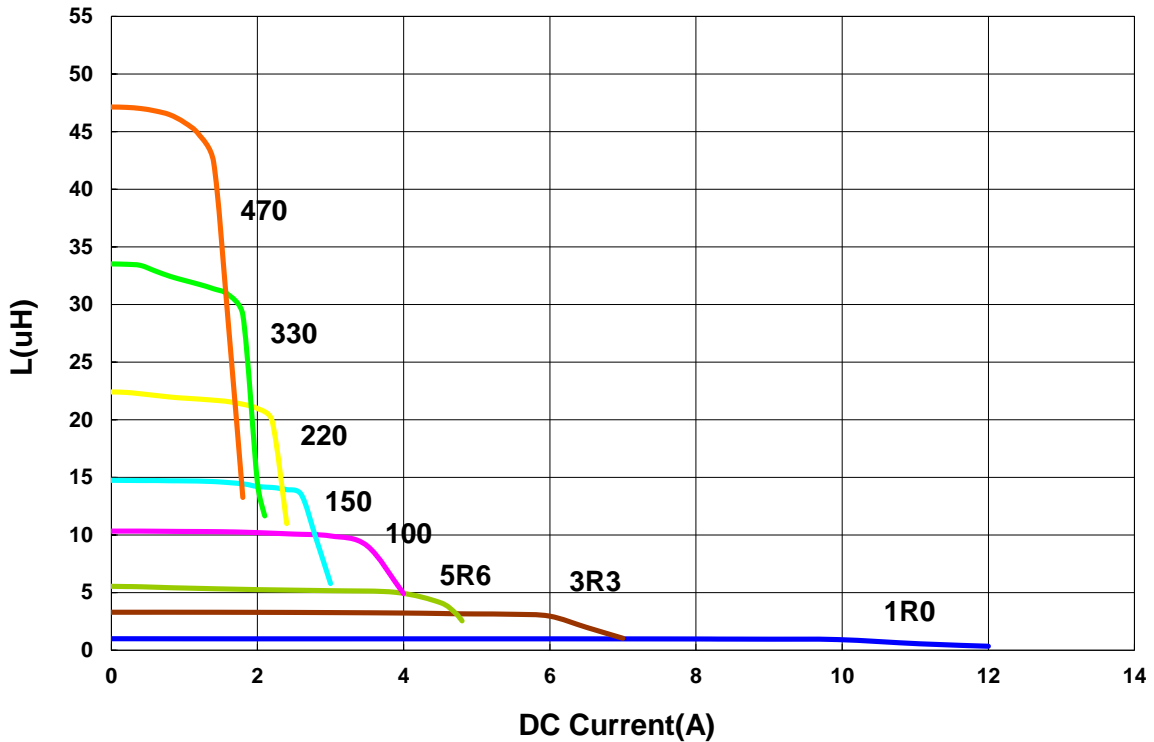
APSR00080725 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

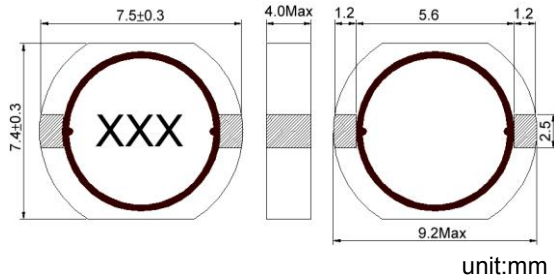


**Power Inductor APSR Series**

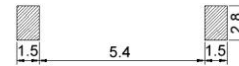
**Automotive  
AEC-Q200**

**APSR00080740 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH )	Test Freq.	RDC (mΩ)Max.	Isat(A) Max(Typ)	Irms (A)	Tolerance (±%)	Marking
APSR000807401R0□00	1.0	100kHz,1V	6.38	(8.0)12	9.00	30	1R0
APSR000807401R5□00	1.5	100kHz,1V	8.64	(7.0)10	8.00	30	1R5
APSR000807401R8□00	1.8	100kHz,1V	9.60	(6.5)8.6	7.92	30	1R8
APSR000807402R5□00	2.5	100kHz,1V	13.6	(4.8)7.2	7.40	30	2R5
APSR000807403R3□00	3.3	100kHz,1V	17.8	(3.9)6.8	6.70	30	3R3
APSR000807404R7□00	4.7	100kHz,1V	26.6	(3.5)4.6	4.90	20,30	4R7
APSR000807405R6□00	5.6	100kHz,1V	29.0	(3.3)4.1	4.60	20,30	5R6
APSR000807406R8□00	6.8	100kHz,1V	34.0	(3.2)3.9	3.90	20,30	6R8
APSR00080740100□00	10	100kHz,1V	55.6	(2.5)3.4	3.25	20,30	100
APSR00080740150□00	15	100kHz,1V	71.4	(2.1)3.0	2.70	20,30	150
APSR00080740220□00	22	100kHz,1V	98.1	(1.7)2.4	2.40	20,30	220
APSR00080740330□00	33	100kHz,1V	140	(1.4)2.0	1.90	20,30	330
APSR00080740470□00	47	100kHz,1V	217	(1.2)1.7	1.48	20,30	470
APSR00080740560□00	56	100kHz,1V	260	(1.0)1.5	1.33	20,30	560
APSR00080740680□00	68	100kHz,1V	310	(0.95)1.36	1.20	20,30	680
APSR00080740820□00	82	100kHz,1V	360	(0.9)1.20	1.12	20,30	820
APSR00080740101□00	100	100kHz,1V	480	(0.85)1.12	0.95	20,30	101
APSR00080740121□00	120	100kHz,1V	560	(0.75)1.00	0.89	20,30	121
APSR00080740151□00	150	100kHz,1V	710	(0.65)0.92	0.82	20,30	151

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: Chroma 16502  
 Isat: HP4284A+HP42841A or WK3260B+WK3265B  
 Irms: Agilent 6641 SYSTEM DC POWER SUPPLY

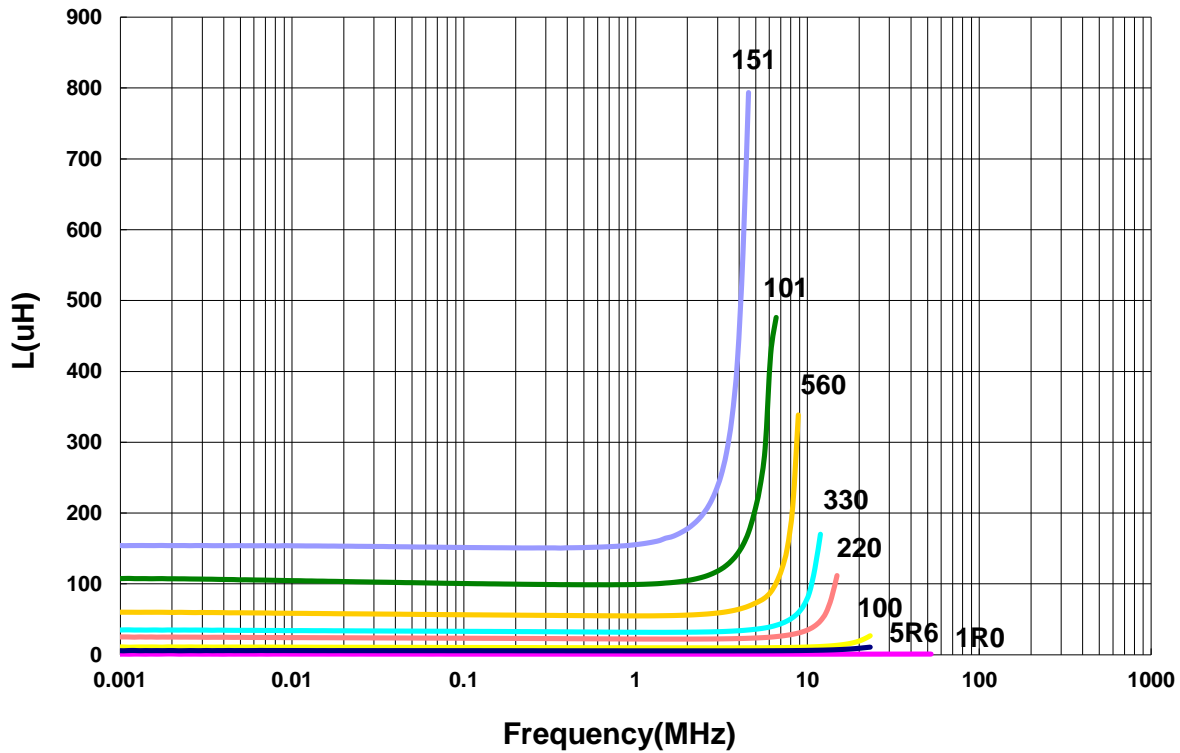
**Power Inductor APSR Series**

**Automotive  
AEC-Q200**

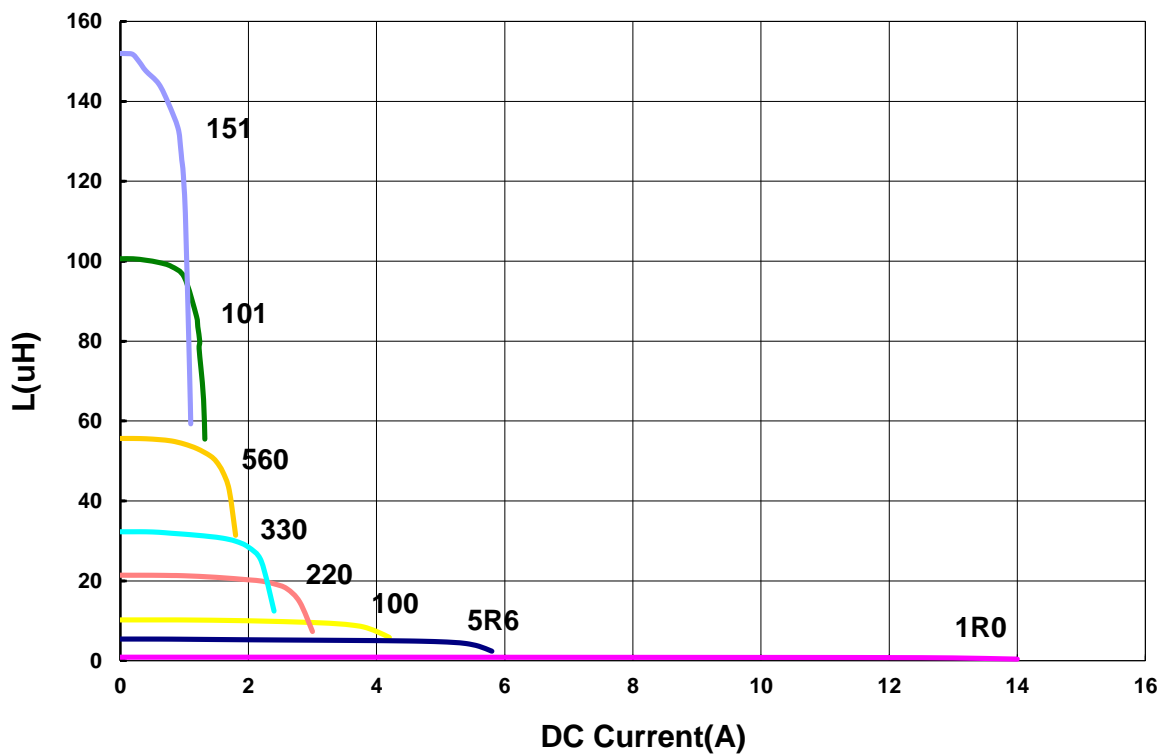
**APSR00080740 Type**

**■ Characteristics Graph**

**Inductance vs. Frequency Characteristics**



**Inductance vs. DC Current**

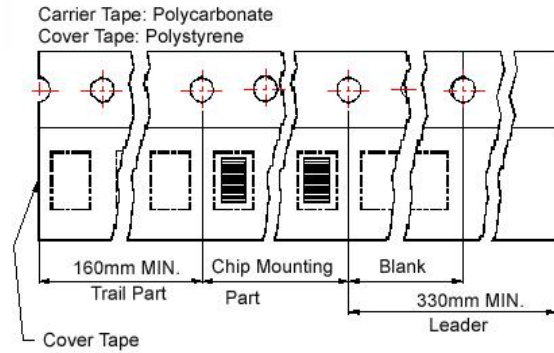
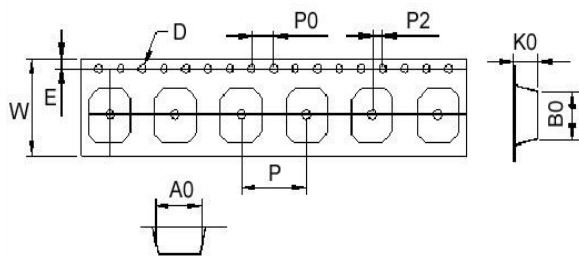


**Power Inductor APSR Series**

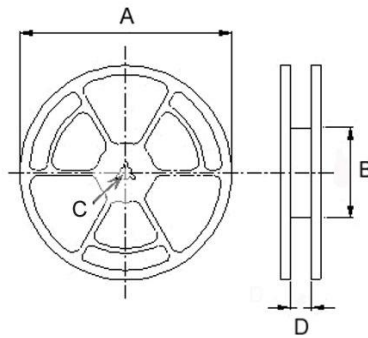
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE										Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
APSR00050522	5.35	6.20	2.4	1.55	1.75	16	8	4	2	330	100	13	16	2000
APSR00080725	7.60	8.65	2.8	1.55	1.75	16	12	4	2	330	100	13	16	1500
APSR00080740	7.60	9.00	4.3	1.55	1.75	16	12	4	2	330	100	13	16	1000



**Power Inductor APCA Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Ferrite

**Part Numbering**

A	PCA	00	060645	1R0	T	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			060645 6.0x6.3x4.5	1R0 1.0	M ±20%	
			070745 7.0x7.4x4.5	100 10	T ±30%	
				101 100		

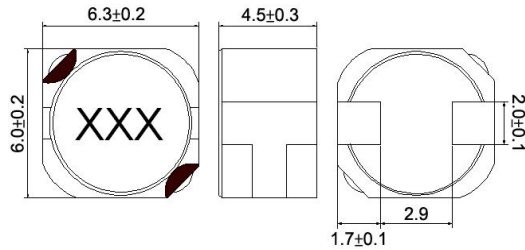
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor APCA Series**

**Automotive  
AEC-Q200**

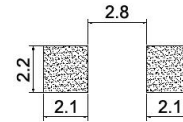
**APCA00060645 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Typ(Max)	Irms (A)	Tolerance (±%)	Marking
APCA000606451R0□00	1.0	100 kHz, 1 V	0.0143	6.7(6.0)	4.8	30	1R0
APCA000606451R5□00	1.5	100 kHz, 1 V	0.0169	5.5(5.2)	4.5	30	1R5
APCA000606452R2□00	2.2	100 kHz, 1 V	0.0195	4.2(3.6)	4.1	30	2R2
APCA000606453R3□00	3.3	100 kHz, 1 V	0.0247	3.5(3.2)	3.7	30	3R3
APCA000606454R7□00	4.7	100 kHz, 1 V	0.0299	3.1(2.5)	3.3	30	4R7
APCA000606456R8□00	6.8	100 kHz, 1 V	0.0351	2.8(2.0)	3.1	30	6R8
APCA00060645100□00	10	100 kHz, 1 V	0.042	2.1(1.7)	2.6	20	100
APCA00060645150□00	15	100 kHz, 1 V	0.072	1.7(1.4)	2.0	20	150
APCA00060645220□00	22	100 kHz, 1 V	0.09	1.4(1.1)	1.8	20	220
APCA00060645330□00	33	100 kHz, 1 V	0.12	1.1(0.9)	1.6	20	330
APCA00060645470□00	47	100 kHz, 1 V	0.156	0.97(0.78)	1.4	20	470
APCA00060645680□00	68	100 kHz, 1 V	0.24	0.81(0.65)	1.1	20	680
APCA00060645101□00	100	100 kHz, 1 V	0.384	0.61(0.55)	0.86	20	101
APCA00060645151□00	150	100 kHz, 1 V	0.576	0.53(0.46)	0.72	20	151
APCA00060645221□00	220	100 kHz, 1 V	0.864	0.47(0.36)	0.57	20	221
APCA00060645331□00	330	100 kHz, 1 V	1.104	0.36(0.28)	0.49	20	331
APCA00060645471□00	470	100 kHz, 1 V	1.56	0.28(0.25)	0.41	20	471

**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. The actual use current is suggested not to be out of Isat\*80%
4. I rms for a 40°C temprature rise from 25°C ambient.
5. Measure Equipment:  
L: HP4284+42841A  
RDC: Chroma 16502  
Isat: HP4284+42841A

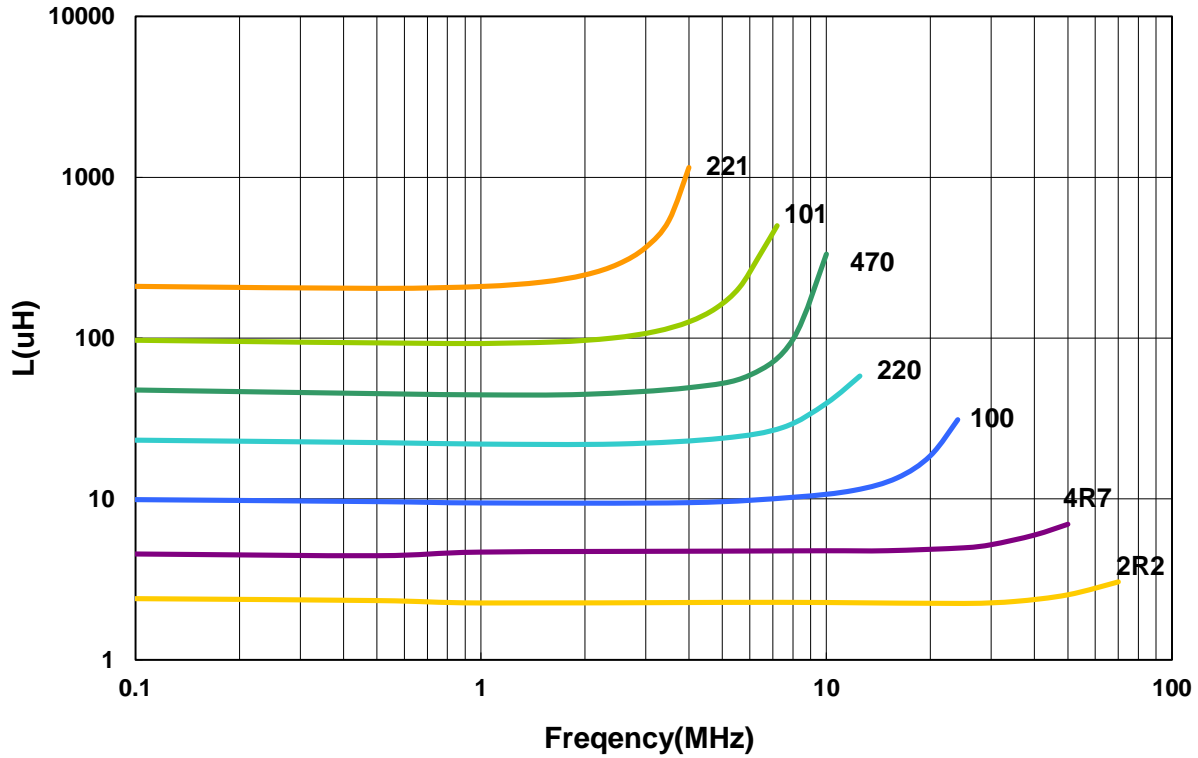
**Power Inductor APCA Series**

**Automotive  
AEC-Q200**

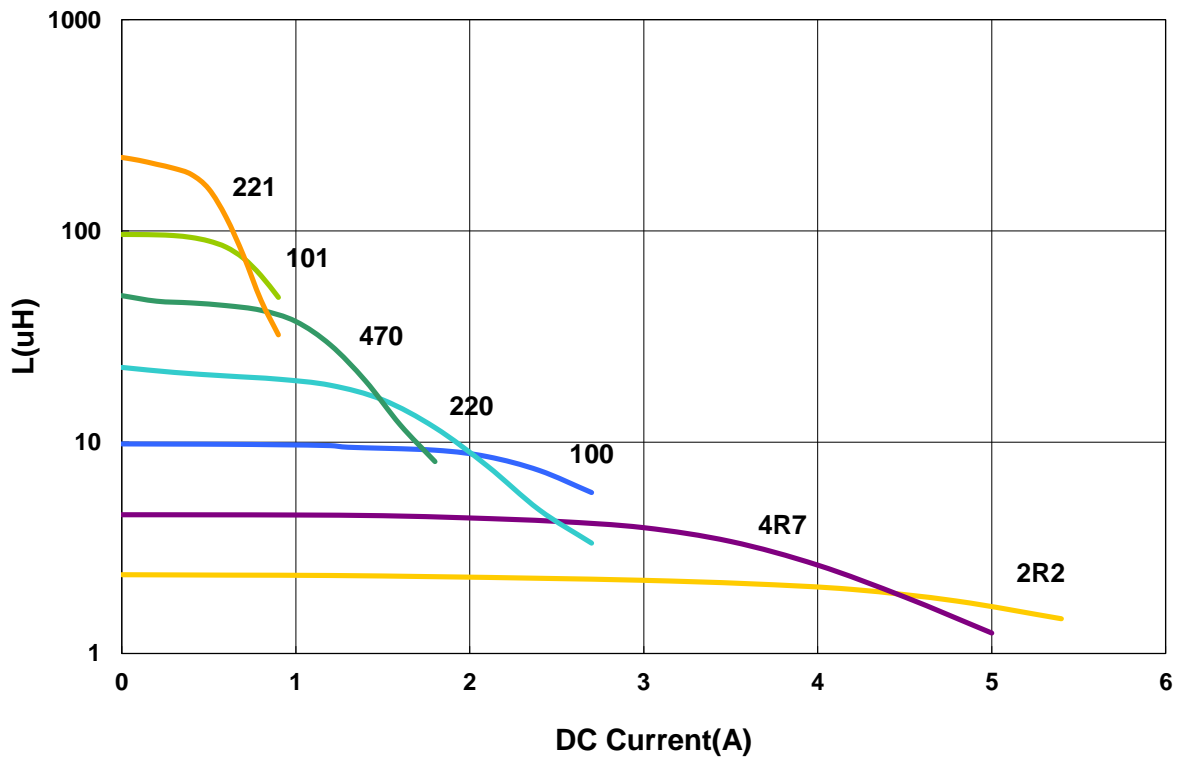
APCA00060645 Type

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

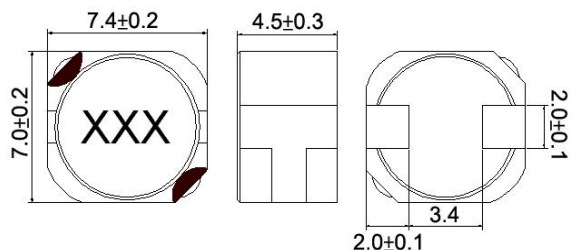


**Power Inductor APCA Series**

**Automotive  
AEC-Q200**

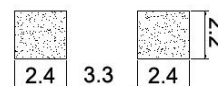
**APCA00070745 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Typ(Max)	Irms (A)	Tolerance (±%)	Marking
APCA000707451R0□00	1.0	100 kHz,1 V	0.0117	9.3(7.6)	6.5	30	1R0
APCA000707451R5□00	1.5	100 kHz,1 V	0.013	7.8(6.2)	5.4	30	1R5
APCA000707452R2□00	2.2	100 kHz,1 V	0.0169	7.3(6.0)	5.1	30	2R2
APCA000707453R3□00	3.3	100 kHz,1 V	0.0208	5.8(4.6)	4.8	30	3R3
APCA000707454R7□00	4.7	100 kHz,1 V	0.0234	4.8(4.0)	4.1	30	4R7
APCA000707456R8□00	6.8	100 kHz,1 V	0.0264	3.6(3.0)	3.9	30	6R8
APCA00070745100□00	10	100 kHz,1 V	0.0396	3.2(2.6)	3.1	20	100
APCA00070745150□00	15	100 kHz,1 V	0.066	2.4(2.0)	2.6	20	150
APCA00070745220□00	22	100 kHz,1 V	0.0828	2.1(1.6)	2.2	20	220
APCA00070745330□00	33	100 kHz,1 V	0.116	1.6(1.3)	1.8	20	330
APCA00070745470□00	47	100 kHz,1 V	0.156	1.3(1.1)	1.7	20	470
APCA00070745680□00	68	100 kHz,1 V	0.204	1.08(0.95)	1.5	20	680
APCA00070745101□00	100	100 kHz,1 V	0.312	0.9(0.8)	1.05	20	101
APCA00070745151□00	150	100 kHz,1 V	0.516	0.8(0.65)	0.95	20	151
APCA00070745221□00	220	100 kHz,1 V	0.66	0.7(0.54)	0.75	20	221
APCA00070745331□00	330	100 kHz,1 V	0.96	0.55(0.45)	0.58	20	331
APCA00070745471□00	470	100 kHz,1 V	1.44	0.45(0.37)	0.46	20	471

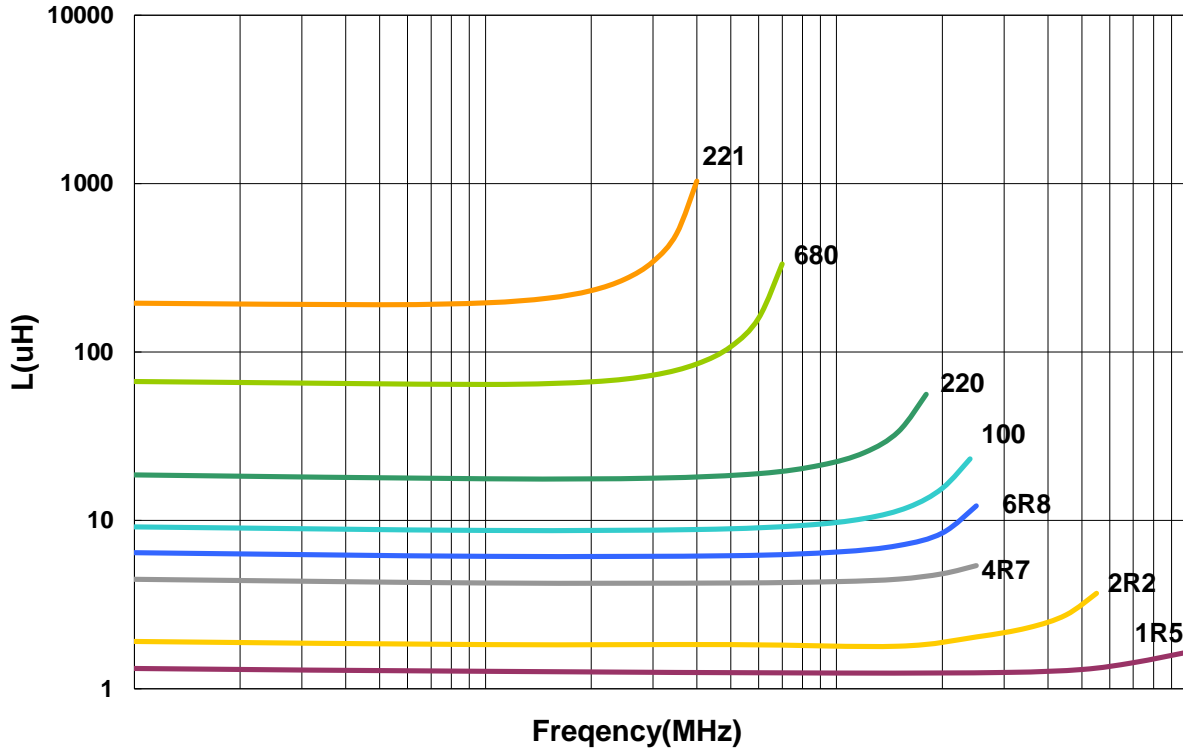
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. The actual use current is suggested not to be out of Isat\*80%
4. I rms for a 40°C temprature rise from 25°C ambient.
5. Measure Equipment:  
L: HP4284+42841A  
RDC: Chroma 16502  
Isat: HP4284+42841A

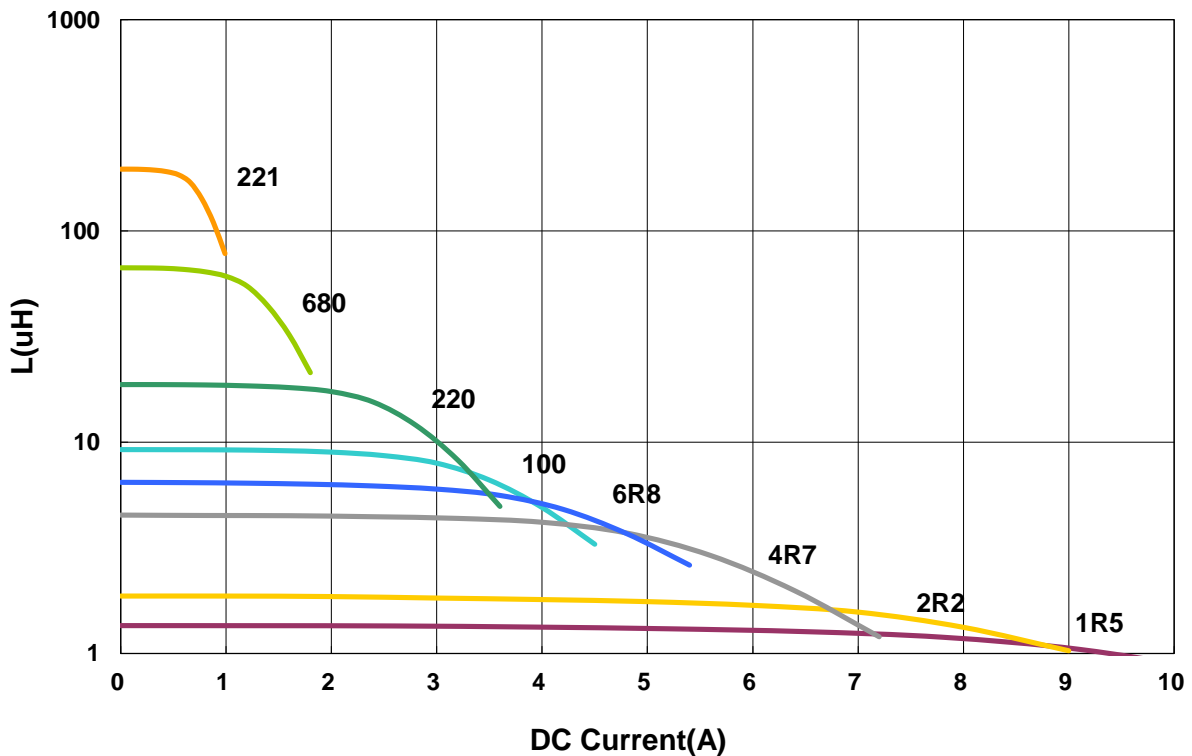
APCA00070745 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

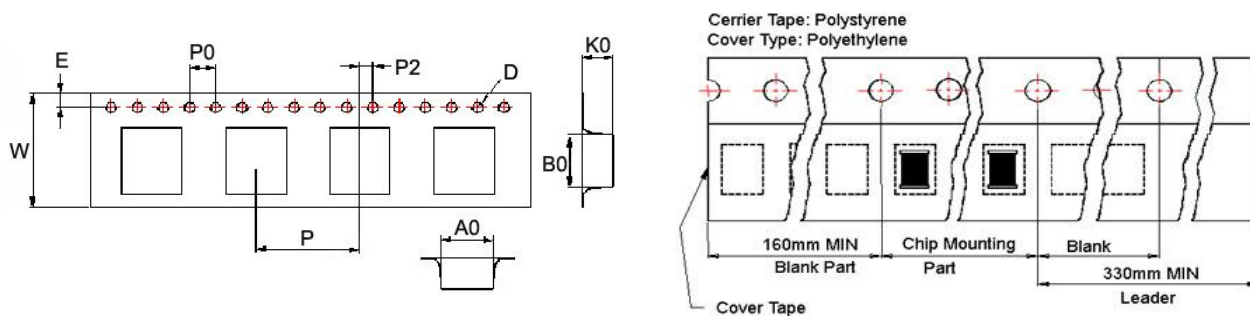


**Power Inductor APCA Series**

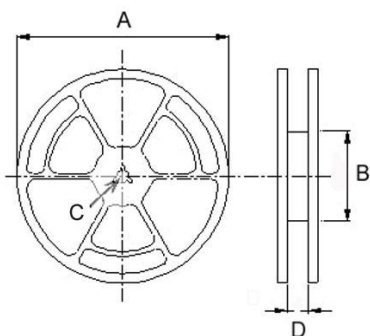
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
APCA00060645	6.9	6.3	5	1.55	1.75	16	12	4	2	330	100	13	16	1000
APCA00070745	7.35	7.7	5	1.55	1.75	16	12	4	2	330	100	13	16	1000

**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Power Circuit
Unshield
Wire Wound
Ferrite

**Part Numbering**

A	PSD	00	030321	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			030321 3.3x3.0x2.1	R47 0.47	K ±10%	
			050432 4.5x4.0x3.2	1R0 1.0	M ±20%	
			060530 5.8x5.2x3.0	101 100	T ±30%	
			060545 5.8x5.2x4.5			
			080735 7.8x7.0x3.5			
			080750 7.8x7.0x5.0			

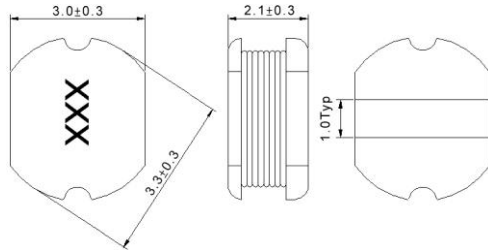
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

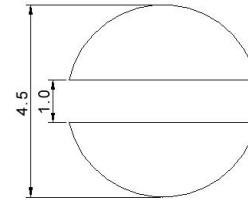
**APSD00030321 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD00030321R82□00	0.82	7.96 MHz,1 V	0.06	2.2	30	AX
APSD000303211R0□00	1	7.96 MHz,1 V	0.07	2.08	20	BA
APSD000303211R4□00	1.4	7.96 MHz,1 V	0.09	1.86	20	BE
APSD000303211R5□00	1.5	7.96 MHz,1 V	0.11	1.8	20	BF
APSD000303211R8□00	1.8	7.96 MHz,1 V	0.11	1.8	20	BI
APSD000303212R2□00	2.2	7.96 MHz,1 V	0.13	1.39	20	CC
APSD000303212R7□00	2.7	7.96 MHz,1 V	0.14	1.32	20	CH
APSD000303213R3□00	3.3	7.96 MHz,1 V	0.17	1.25	20	DD
APSD000303213R9□00	3.9	7.96 MHz,1 V	0.19	1.2	20	DJ
APSD000303214R7□00	4.7	7.96 MHz,1 V	0.21	1.13	20	EH
APSD000303215R6□00	5.6	7.96 MHz,1 V	0.22	0.91	20	FG
APSD000303216R8□00	6.8	7.96 MHz,1 V	0.25	0.85	20	GI
APSD000303217R0□00	7	7.96 MHz,1 V	0.28	0.82	20	HA
APSD000303218R2□00	8.2	7.96 MHz,1 V	0.28	0.82	20	IC
APSD00030321100□00	10	2.52 MHz,1 V	0.32	0.74	10,20	KA
APSD00030321120□00	12	2.52 MHz,1 V	0.35	0.64	20	QA
APSD00030321150□00	15	2.52 MHz,1 V	0.4	0.6	20	MA
APSD00030321180□00	18	2.52 MHz,1 V	0.48	0.54	20	RA
APSD00030321220□00	22	2.52 MHz,1 V	0.58	0.5	10,20	LA
APSD00030321270□00	27	2.52 MHz,1 V	0.65	0.43	20	SA
APSD00030321330□00	33	2.52 MHz,1 V	0.8	0.4	20	NA
APSD00030321390□00	39	2.52 MHz,1 V	0.9	0.37	20	PA
APSD00030321470□00	47	2.52 MHz,1 V	1.19	0.36	20	OA
APSD00030321500□00	50	2.52 MHz,1 V	1.22	0.33	20	TA
APSD00030321560□00	56	2.52 MHz,1 V	1.27	0.31	20	UA
APSD00030321680□00	68	2.52 MHz,1 V	1.73	0.3	10,20	VA
APSD00030321750□00	75	2.52 MHz,1 V	1.9	0.29	20	WA
APSD00030321820□00	82	2.52 MHz,1 V	1.99	0.28	10,20	XA
APSD00030321101□00	100	1 kHz,1 V	2.52	0.25	20	KB
APSD00030321121□00	120	1 kHz,1 V	2.9	0.2	10,20	QB
APSD00030321151□00	150	1 kHz,1 V	3.36	0.19	20	MB
APSD00030321181□00	180	1 kHz,1 V	5.1	0.17	20	RB
APSD00030321221□00	220	1 kHz,1 V	5.8	0.16	10,20	LB
APSD00030321271□00	270	1 kHz,1 V	7.8	0.14	10,20	SB

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20% / T=±30%**

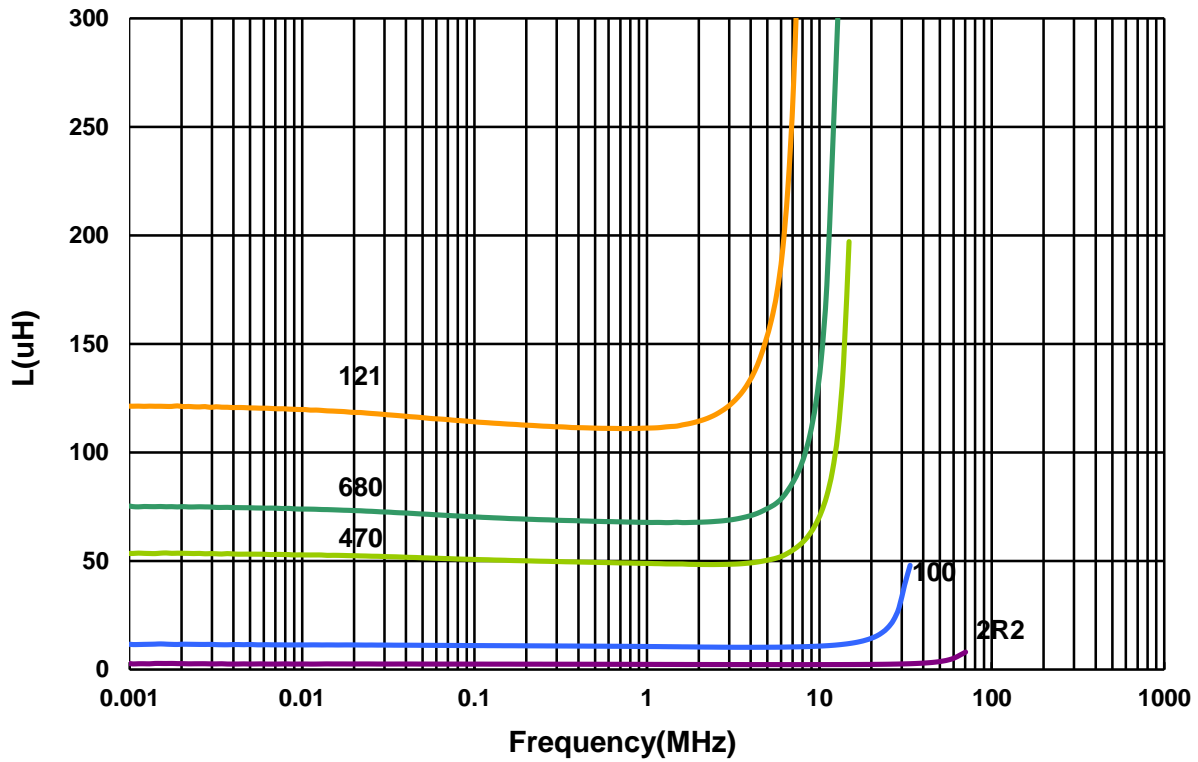
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Measure Equipment:
  - L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)
  - RDC: Chroma 16502
  - Isat: HP4284+42841A or WK3260B+WK3265B



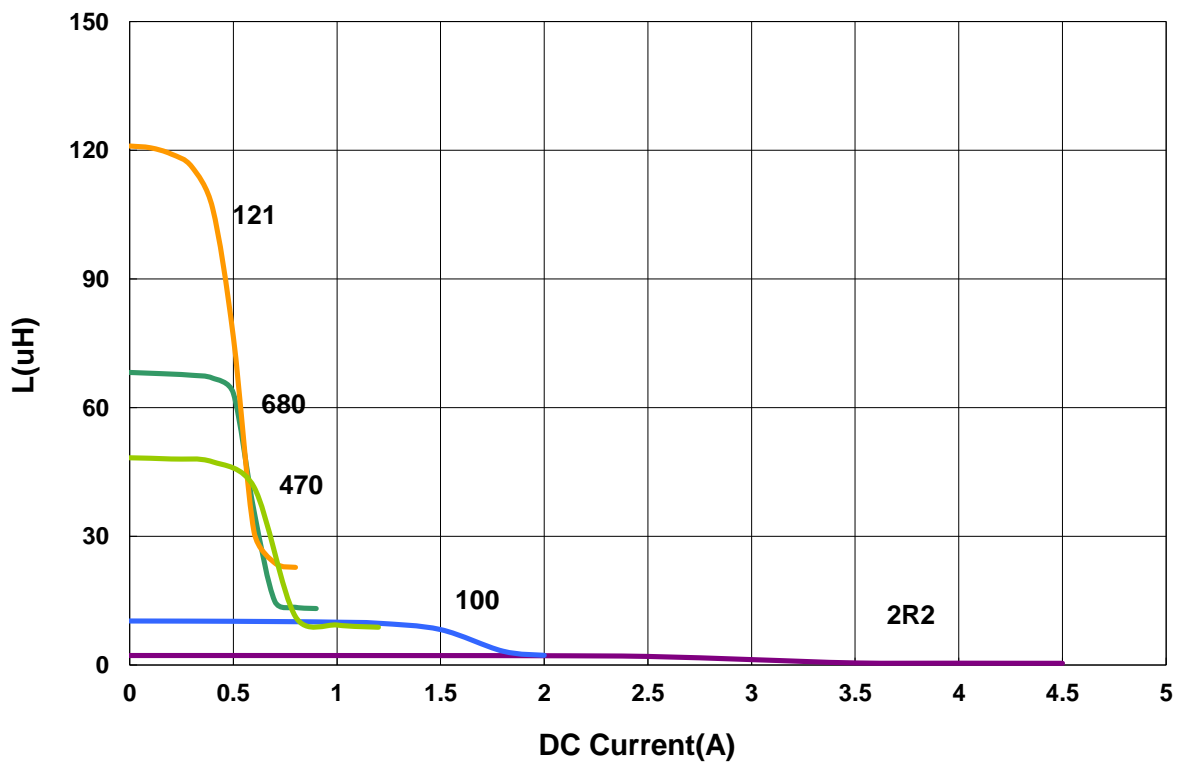
APSD00030321 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

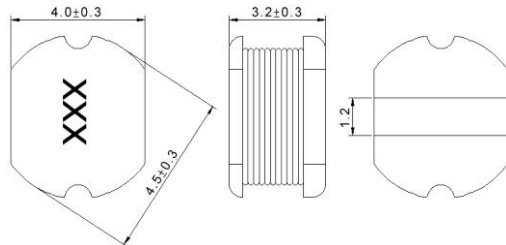


**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

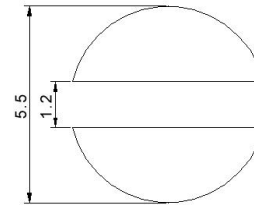
**APSD00050432 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD00050432R15□00	0.15	7.96 MHz,1 V	0.0085	7.5	30	R15
APSD000504321R0□00	1	7.96 MHz,1 V	0.033	3.8	10,20	1R0
APSD000504321R2□00	1.2	7.96 MHz,1 V	0.035	3.5	20	1R2
APSD000504321R4□00	1.4	7.96 MHz,1 V	0.038	3.3	20	1R4
APSD000504321R8□00	1.8	7.96 MHz,1 V	0.042	2.91	10,20	1R8
APSD000504322R2□00	2.2	7.96 MHz,1 V	0.047	2.6	10,20	2R2
APSD000504322R7□00	2.7	7.96 MHz,1 V	0.052	2.43	20	2R7
APSD000504323R3□00	3.3	7.96 MHz,1 V	0.058	2.15	10,20	3R3
APSD000504323R9□00	3.9	7.96 MHz,1 V	0.076	1.98	20	3R9
APSD000504324R7□00	4.7	7.96 MHz,1 V	0.094	1.7	10,20	4R7
APSD000504325R6□00	5.6	7.96 MHz,1 V	0.101	1.6	10,20	5R6
APSD000504326R2□00	6.2	7.96 MHz,1 V	0.11	1.5	20	6R2
APSD000504326R8□00	6.8	7.96 MHz,1 V	0.117	1.41	10,20	6R8
APSD000504328R2□00	8.2	7.96 MHz,1 V	0.132	1.26	10,20	8R2
APSD00050432100□00	10	2.52 MHz,1 V	0.182	1.15	10,20	100
APSD00050432120□00	12	2.52 MHz,1 V	0.21	1.05	20	120
APSD00050432150□00	15	2.52 MHz,1 V	0.235	0.92	10,20	150
APSD00050432180□00	18	2.52 MHz,1 V	0.338	0.84	20	180
APSD00050432220□00	22	2.52 MHz,1 V	0.378	0.76	10,20	220
APSD00050432270□00	27	2.52 MHz,1 V	0.522	0.71	20	270
APSD00050432330□00	33	2.52 MHz,1 V	0.54	0.64	10,20	330
APSD00050432390□00	39	2.52 MHz,1 V	0.587	0.59	10,20	390
APSD00050432470□00	47	2.52 MHz,1 V	0.844	0.54	10,20	470
APSD00050432560□00	56	2.52 MHz,1 V	0.937	0.5	10,20	560
APSD00050432680□00	68	2.52 MHz,1 V	1.117	0.46	10,20	680
APSD00050432101□00	100	1 kHz,1 V	2	0.4	10,20	101
APSD00050432121□00	120	1 kHz,1 V	1.8	0.38	10,20	121
APSD00050432151□00	150	1 kHz,1 V	2.8	0.3	10,20	151
APSD00050432181□00	180	1 kHz,1 V	3.2	0.25	10,20	181
APSD00050432221□00	220	1 kHz,1 V	4	0.15	10,20	221
APSD00050432331□00	330	1 kHz,1 V	5.85	0.21	10,20	331

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:

L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)

RDC: Chroma 16502

Isat: HP4284+42841A or WK3260B+WK3265B

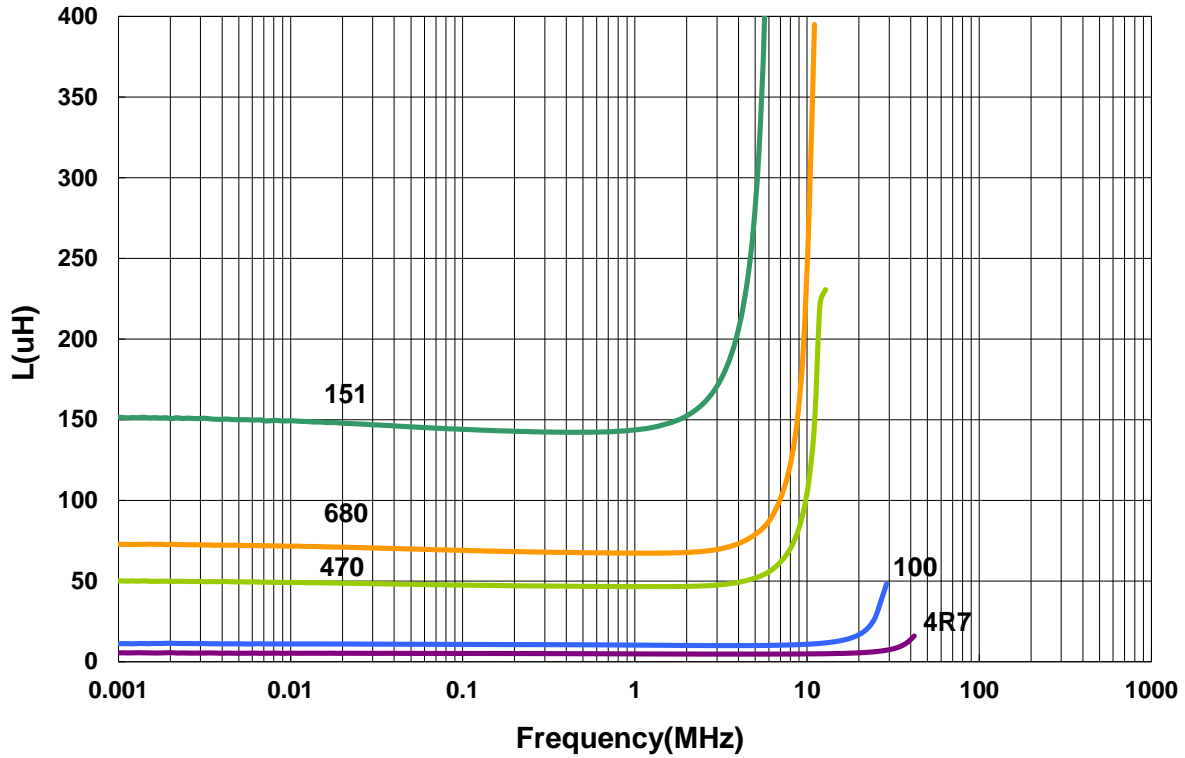
**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

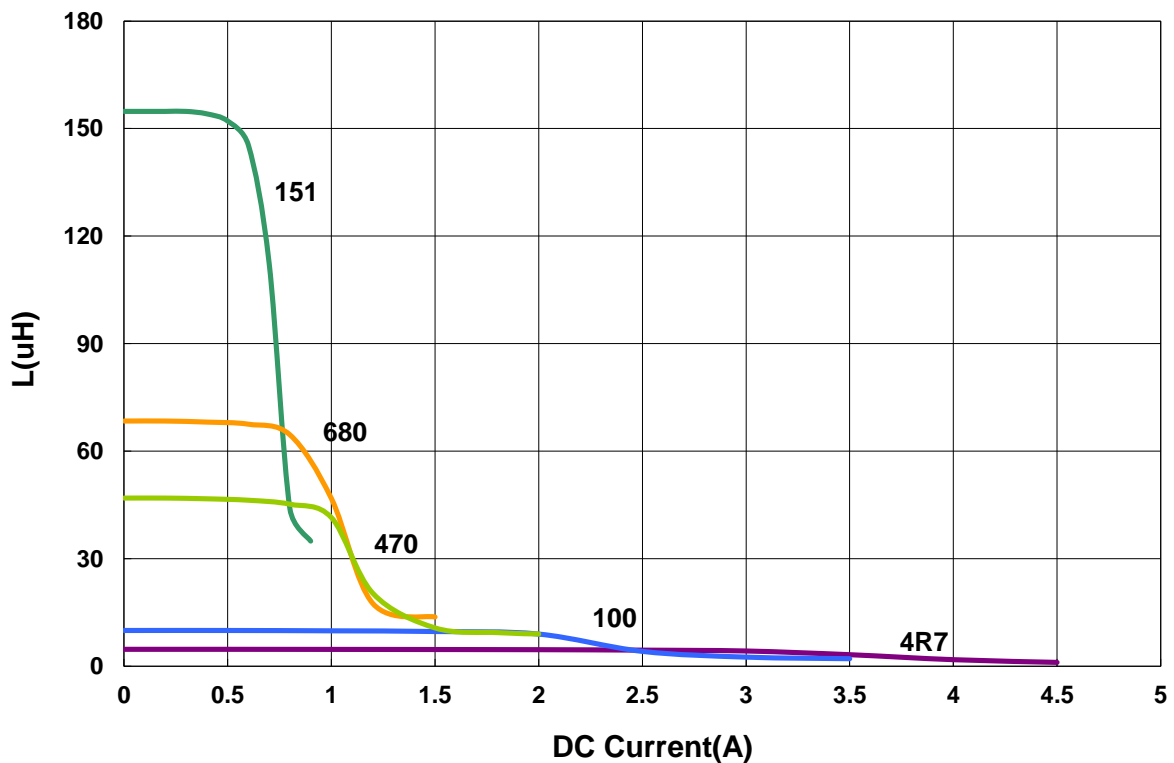
**APSD00050432 Type**

**■ Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

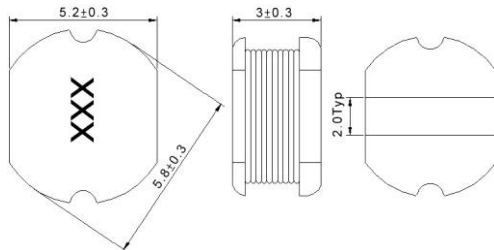


**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

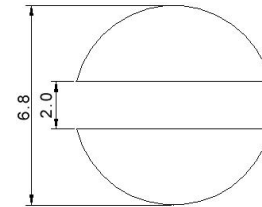
**APSD00060530 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD000605301R0□00	1	7.96 MHz,1 V	0.03	4.5	20	1R0
APSD000605301R2□00	1.2	7.96 MHz,1 V	0.03	4.2	20	1R2
APSD000605301R5□00	1.5	7.96 MHz,1 V	0.03	4.1	20	1R5
APSD000605301R8□00	1.8	7.96 MHz,1 V	0.03	3.7	10,20	1R8
APSD000605302R0□00	2	7.96 MHz,1 V	0.03	3.6	20	2R0
APSD000605302R2□00	2.2	7.96 MHz,1 V	0.03	3.5	20	2R2
APSD000605302R7□00	2.7	7.96 MHz,1 V	0.04	3.2	20	2R7
APSD000605303R3□00	3.3	7.96 MHz,1 V	0.05	2.8	10,20	3R3
APSD000605303R9□00	3.9	7.96 MHz,1 V	0.06	2.6	20	3R9
APSD000605304R7□00	4.7	7.96 MHz,1 V	0.07	2.5	10,20	4R7
APSD000605305R6□00	5.6	7.96 MHz,1 V	0.08	2.4	20	5R6
APSD000605306R8□00	6.8	7.96 MHz,1 V	0.09	2.2	20	6R8
APSD000605308R2□00	8.2	7.96 MHz,1 V	0.1	2	20	8R2
APSD00060530100□00	10	2.52 MHz,1 V	0.12	1.8	10,20	100
APSD00060530120□00	12	2.52 MHz,1 V	0.13	1.75	20	120
APSD00060530150□00	15	2.52 MHz,1 V	0.15	1.7	10,20	150
APSD00060530180□00	18	2.52 MHz,1 V	0.22	1.6	10,20	180
APSD00060530220□00	22	2.52 MHz,1 V	0.22	1.5	10,20	220
APSD00060530270□00	27	2.52 MHz,1 V	0.26	1.4	20	270
APSD00060530330□00	33	2.52 MHz,1 V	0.33	1.1	10,20	330
APSD00060530390□00	39	2.52 MHz,1 V	0.42	1	10,20	390
APSD00060530470□00	47	2.52 MHz,1 V	0.5	0.9	10,20	470
APSD00060530560□00	56	2.52 MHz,1 V	0.55	0.85	10,20	560
APSD00060530680□00	68	2.52 MHz,1 V	0.65	0.8	10,20	680
APSD00060530820□00	82	2.52 MHz,1 V	0.8	0.65	10,20	820
APSD00060530101□00	100	1 kHz,1 V	0.9	0.6	10,20	101
APSD00060530121□00	120	1 kHz,1 V	1	0.58	10,20	121
APSD00060530151□00	150	1 kHz,1 V	1.3	0.43	10,20	151
APSD00060530181□00	180	1 kHz,1 V	1.5	0.41	10,20	181
APSD00060530221□00	220	1 kHz,1 V	2	0.38	10,20	221
APSD00060530271□00	270	1 kHz,1 V	2.5	0.35	10,20	271
APSD00060530331□00	330	1 kHz,1 V	3.2	0.28	10,20	331
APSD00060530391□00	390	1 kHz,1 V	3.5	0.26	10,20	391
APSD00060530471□00	470	1 kHz,1 V	4.2	0.2	10,20	471
APSD00060530561□00	560	1 kHz,1 V	4.5	0.19	10,20	561

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:

L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)

RDC: Chroma 16502

Isat: HP4284+42841A or WK3260B+WK3265B

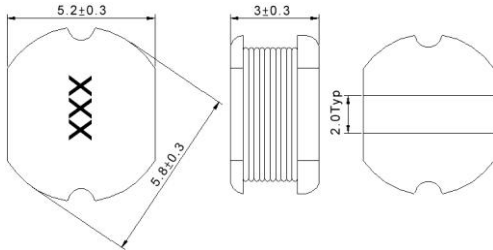
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

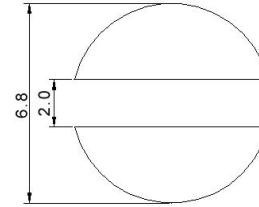
**APSD00060530 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD00060530681□00	680	1 kHz, 1 V	6.5	0.18	10,20	681
APSD00060530821□00	820	1 kHz, 1 V	7.5	0.15	10,20	821
APSD00060530102□00	1000	1 kHz, 1 V	8	0.13	10,20	102

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)  
 RDC: Chroma 16502  
 Isat: HP4284+42841A or WK3260B+WK3265B

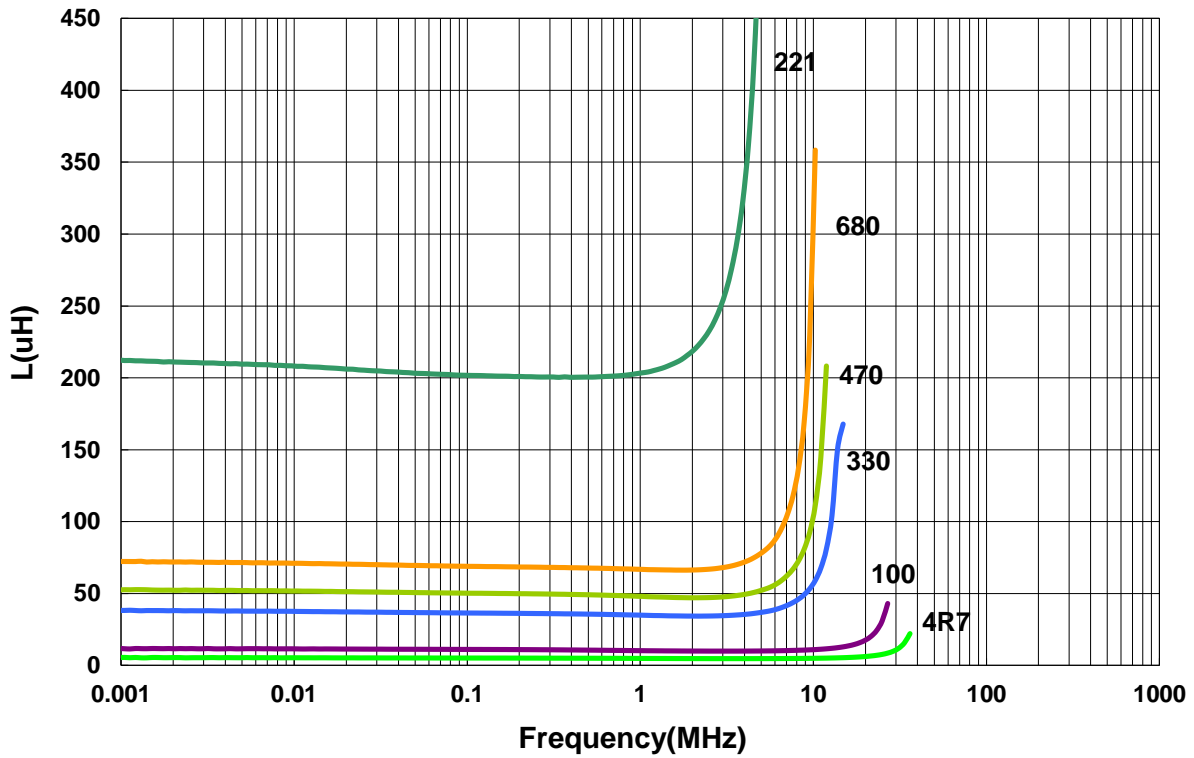
**Power Inductor SCD Series**

**Automotive  
AEC-Q200**

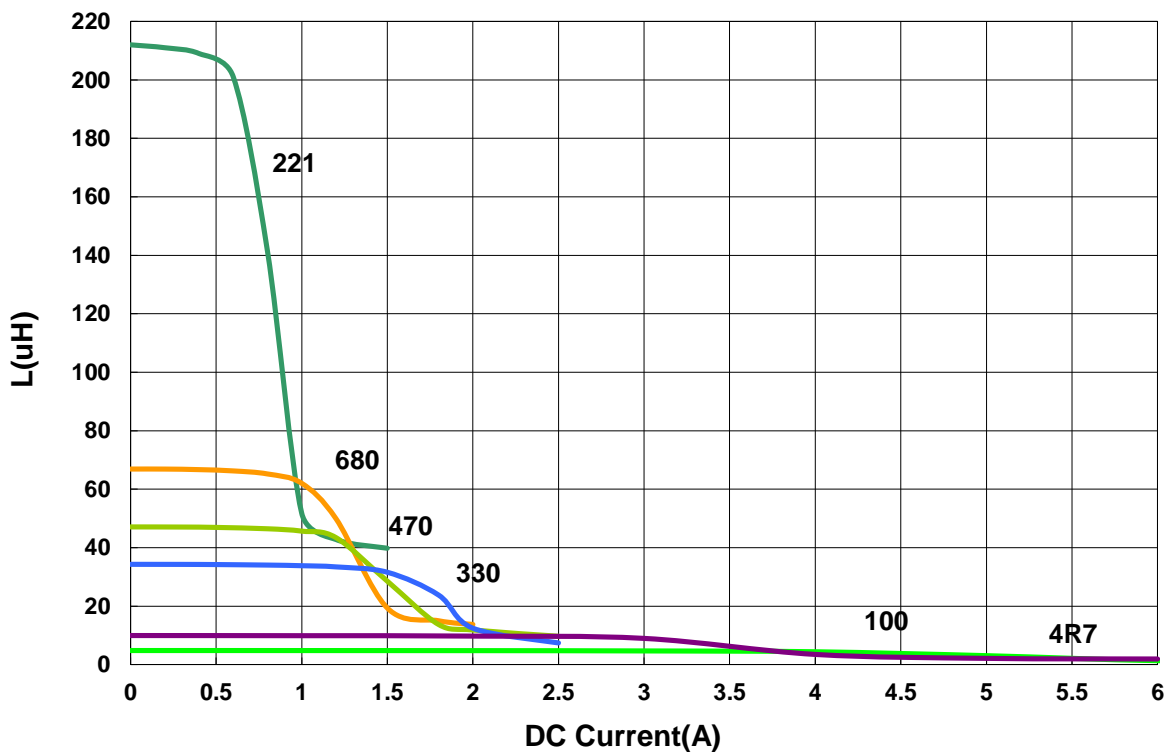
**APSD00060530 Type**

**Characteristics Graph**

**Inductance vs. Frequency Charateristics**



**Inductance vs. DC Current**

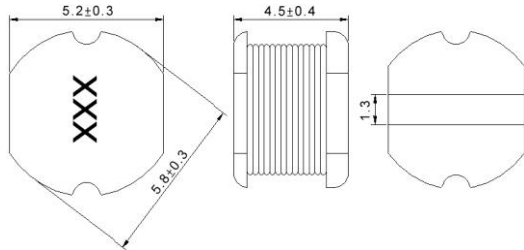


**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

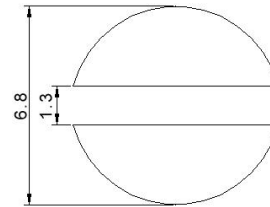
**APSD00060545 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD000605451R8□00	1.8	7.96 MHz,1 V	0.02	3.5	20	1R8
APSD000605452R2□00	2.2	7.96 MHz,1 V	0.023	3.2	20	2R2
APSD000605453R3□00	3.3	7.96 MHz,1 V	0.0314	2.59	10,20	3R3
APSD000605453R5□00	3.5	7.96 MHz,1 V	0.03	2.4	20	3R5
APSD000605454R7□00	4.7	7.96 MHz,1 V	0.0372	2.3	10,20	4R7
APSD000605456R8□00	6.8	7.96 MHz,1 V	0.057	1.8	20	6R8
APSD000605458R2□00	8.2	7.96 MHz,1 V	0.0594	1.7	20	8R2
APSD00060545100□00	10	2.52 MHz,1 V	0.1	1.44	10,20	100
APSD00060545120□00	12	2.52 MHz,1 V	0.12	1.4	20	120
APSD00060545150□00	15	2.52 MHz,1 V	0.14	1.3	10,20	150
APSD00060545180□00	18	2.52 MHz,1 V	0.15	1.23	20	180
APSD00060545220□00	22	2.52 MHz,1 V	0.18	1.11	20	220
APSD00060545270□00	27	2.52 MHz,1 V	0.2	0.97	20	270
APSD00060545330□00	33	2.52 MHz,1 V	0.23	0.88	10,20	330
APSD00060545390□00	39	2.52 MHz,1 V	0.32	0.8	10,20	390
APSD00060545470□00	47	2.52 MHz,1 V	0.37	0.72	10,20	470
APSD00060545560□00	56	2.52 MHz,1 V	0.42	0.68	10,20	560
APSD00060545680□00	68	2.52 MHz,1 V	0.46	0.61	10,20	680
APSD00060545820□00	82	2.52 MHz,1 V	0.6	0.58	10,20	820
APSD00060545101□00	100	1 kHz,1 V	0.7	0.52	10,20	101
APSD00060545121□00	120	1 kHz,1 V	0.93	0.48	10,20	121
APSD00060545151□00	150	1 kHz,1 V	1.1	0.4	10,20	151
APSD00060545181□00	180	1 kHz,1 V	1.38	0.38	10,20	181
APSD00060545221□00	220	1 kHz,1 V	1.57	0.35	10,20	221
APSD00060545271□00	270	1 kHz,1 V	1.85	0.29	10,20	271
APSD00060545331□00	330	1 kHz,1 V	2	0.28	10,20	331
APSD00060545391□00	390	1 kHz,1 V	2.6	0.26	10,20	391
APSD00060545471□00	470	1 kHz,1 V	3	0.12	10,20	471
APSD00060545561□00	560	1 kHz,1 V	4.19	0.1	10,20	561
APSD00060545681□00	680	1 kHz,1 V	4.44	0.08	10,20	681
APSD00060545821□00	820	1 kHz,1 V	5.12	0.05	10,20	821
APSD00060545102□00	1000	1 kHz,1 V	10	0.03	10,20	102

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:

L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)

RDC: Chroma 16502

Isat: HP4284+42841A or WK3260B+WK3265B

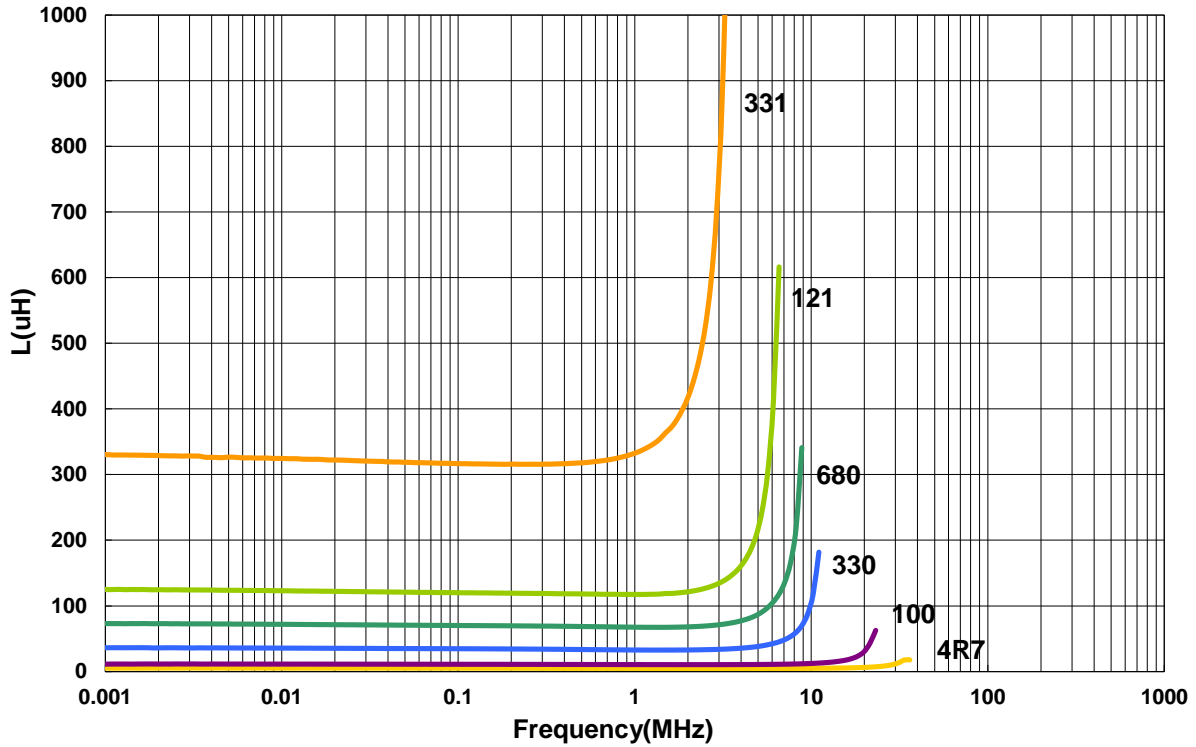
**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

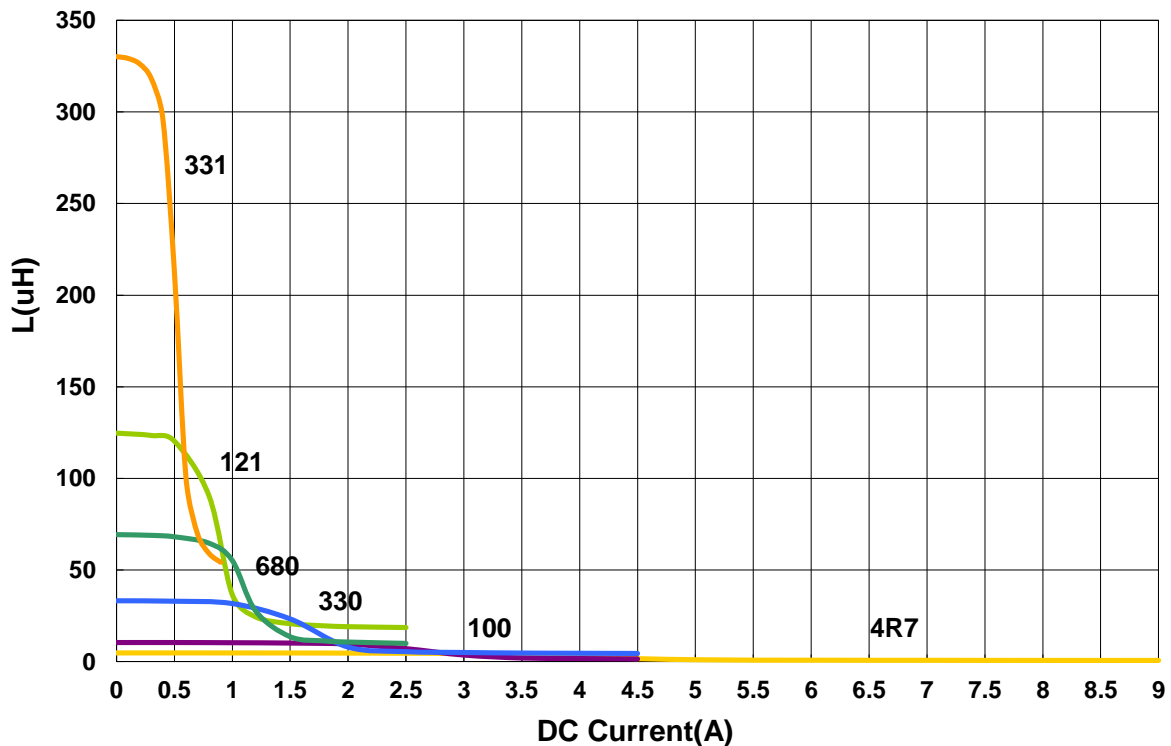
**APSD00060545 Type**

**Characteristics Graph**

**Inductance vs. Frequency Characteristics**



**Inductance vs. DC Current**



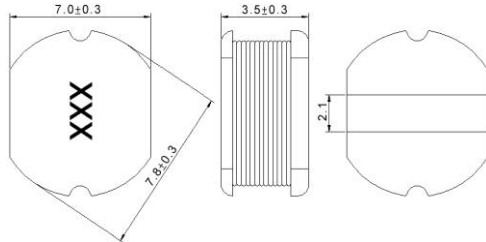


**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

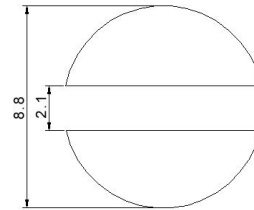
**APSD00080735 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD000807352R2□00	2.2	7.96 MHz,1 V	0.03	3.2	20	2R2
APSD000807354R7□00	4.7	2.52 MHz,1 V	0.04	1.6	20	4R7
APSD00080735100□00	10	2.52 MHz,1 V	0.08	1.44	20	100
APSD00080735120□00	12	2.52 MHz,1 V	0.09	1.39	10,20	120
APSD00080735150□00	15	2.52 MHz,1 V	0.1	1.24	10,20	150
APSD00080735180□00	18	2.52 MHz,1 V	0.11	1.12	20	180
APSD00080735220□00	22	2.52 MHz,1 V	0.13	1.07	20	220
APSD00080735270□00	27	2.52 MHz,1 V	0.15	0.94	20	270
APSD00080735330□00	33	2.52 MHz,1 V	0.17	0.85	10,20	330
APSD00080735390□00	39	2.52 MHz,1 V	0.22	0.74	10,20	390
APSD00080735470□00	47	2.52 MHz,1 V	0.25	0.68	10,20	470
APSD00080735560□00	56	2.52 MHz,1 V	0.28	0.64	10,20	560
APSD00080735680□00	68	2.52 MHz,1 V	0.33	0.59	10,20	680
APSD00080735820□00	82	2.52 MHz,1 V	0.41	0.54	10,20	820
APSD00080735101□00	100	1 kHz,1 V	0.48	0.51	10,20	101
APSD00080735121□00	120	1 kHz,1 V	0.54	0.49	10,20	121
APSD00080735151□00	150	1 kHz,1 V	0.75	0.4	10,20	151
APSD00080735181□00	180	1 kHz,1 V	1.02	0.36	10,20	181
APSD00080735221□00	220	1 kHz,1 V	1.2	0.31	10,20	221
APSD00080735271□00	270	1 kHz,1 V	1.31	0.29	10,20	271
APSD00080735331□00	330	1 kHz,1 V	1.5	0.28	10,20	331
APSD00080735561□00	560	1 kHz,1 V	2.5	0.14	10,20	561

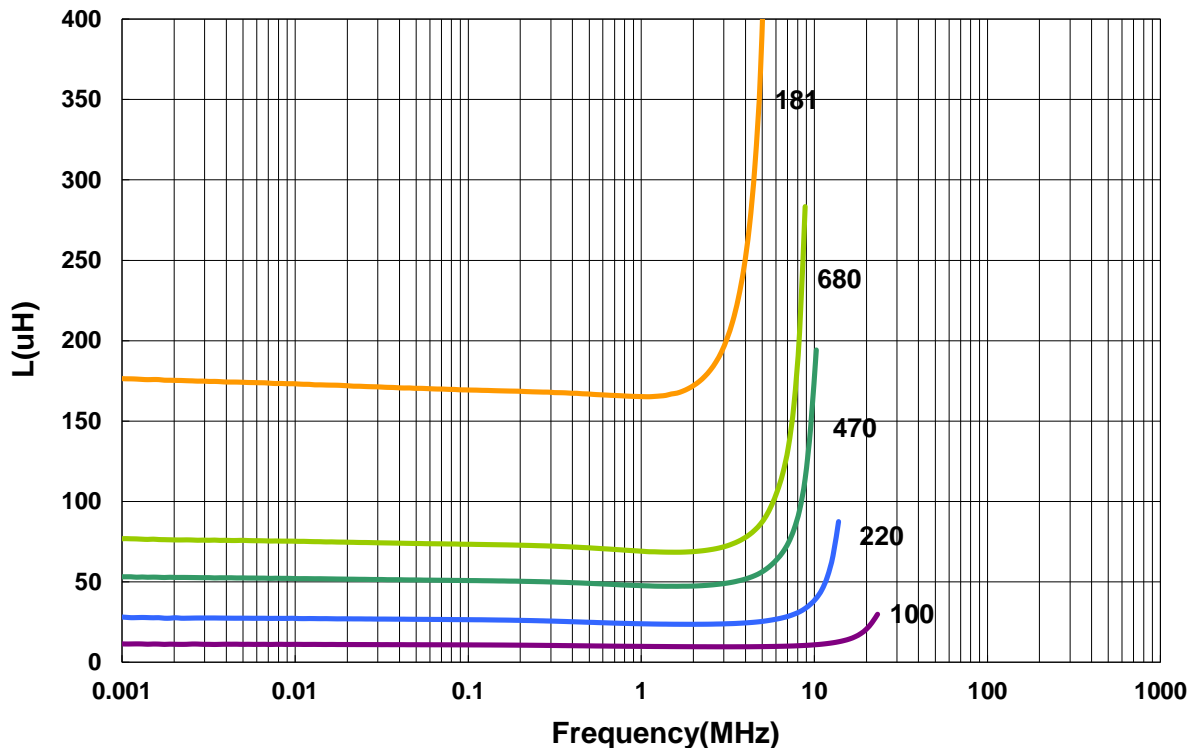
**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)  
 RDC: Chroma 16502  
 Isat: HP4284+42841A or WK3260B+WK3265B

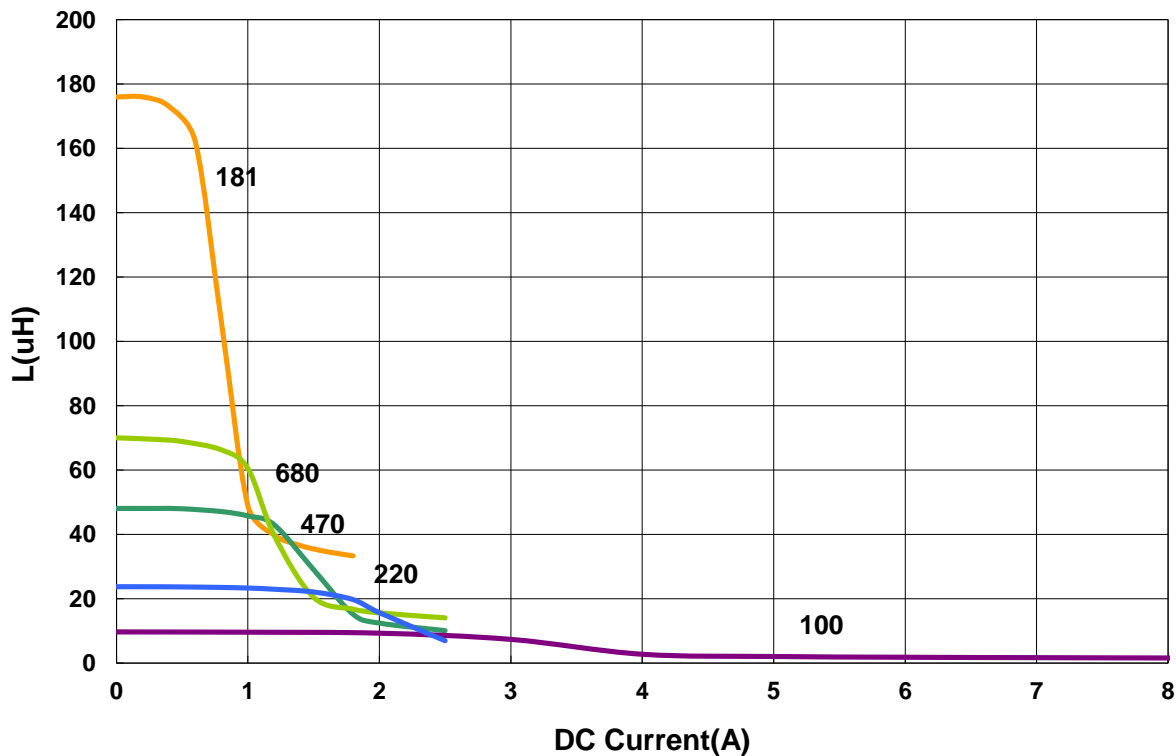
APSD00080735 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

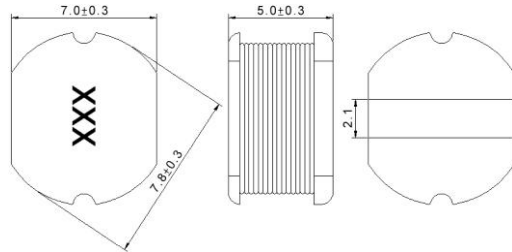


**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

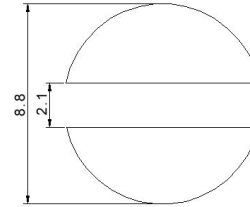
**APSD00080750 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD000807501R4□00	1.4	7.96 MHz,1 V	0.02	3.7	20	1R4
APSD000807501R5□00	1.5	7.96 MHz,1 V	0.02	3.7	20	1R5
APSD000807501R8□00	1.8	7.96 MHz,1 V	0.02	3.7	20	1R8
APSD000807502R2□00	2.2	7.96 MHz,1 V	0.02	3.7	20	2R2
APSD000807502R7□00	2.7	7.96 MHz,1 V	0.02	3.7	20	2R7
APSD000807503R0□00	3	7.96 MHz,1 V	0.025	3.7	20	3R0
APSD000807503R3□00	3.3	7.96 MHz,1 V	0.03	3.7	20	3R3
APSD000807503R6□00	3.6	7.96 MHz,1 V	0.03	3.7	20	3R6
APSD000807503R9□00	3.9	7.96 MHz,1 V	0.03	3.7	20	3R9
APSD000807504R7□00	4.7	7.96 MHz,1 V	0.04	3.5	10,20	4R7
APSD000807505R6□00	5.6	7.96 MHz,1 V	0.04	3.3	20	5R6
APSD000807506R8□00	6.8	7.96 MHz,1 V	0.04	3.1	20	6R8
APSD000807508R2□00	8.2	7.96 MHz,1 V	0.05	2.7	20	8R2
APSD00080750100□00	10	2.52 MHz,1 V	0.07	2.3	10,20	100
APSD00080750120□00	12	2.52 MHz,1 V	0.08	2	20	120
APSD00080750150□00	15	2.52 MHz,1 V	0.09	1.8	10,20	150
APSD00080750180□00	18	2.52 MHz,1 V	0.1	1.6	20	180
APSD00080750220□00	22	2.52 MHz,1 V	0.11	1.5	10,20	220
APSD00080750270□00	27	2.52 MHz,1 V	0.12	1.3	20	270
APSD00080750330□00	33	2.52 MHz,1 V	0.13	1.2	10,20	330
APSD00080750390□00	39	2.52 MHz,1 V	0.16	1.1	10,20	390
APSD00080750470□00	47	2.52 MHz,1 V	0.18	1.1	10,20	470
APSD00080750560□00	56	2.52 MHz,1 V	0.24	0.94	10,20	560
APSD00080750680□00	68	2.52 MHz,1 V	0.28	0.85	10,20	680
APSD00080750820□00	82	2.52 MHz,1 V	0.37	0.78	10,20	820
APSD00080750101□00	100	1 kHz,1 V	0.43	0.72	10,20	101
APSD00080750121□00	120	1 kHz,1 V	0.47	0.66	10,20	121
APSD00080750151□00	150	1 kHz,1 V	0.64	0.58	10,20	151
APSD00080750181□00	180	1 kHz,1 V	0.71	0.51	10,20	181
APSD00080750221□00	220	1 kHz,1 V	0.96	0.49	10,20	221

**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

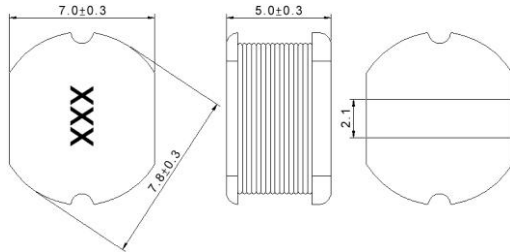
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Measure Equipment:  
 L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)  
 RDC: Chroma 16502  
 Isat: HP4284+42841A or WK3260B+WK3265B

**Power Inductor APSD Series**

**Automotive  
AEC-Q200**

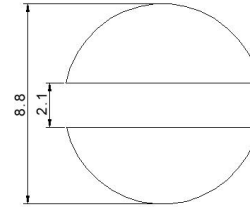
**APSD00080750 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH )	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance (±%)	Marking
APSD00080750271□00	270	1 kHz,1 V	1.11	0.42	10,20	271
APSD00080750331□00	330	1 kHz,1 V	1.26	0.4	10,20	331
APSD00080750391□00	390	1 kHz,1 V	1.77	0.36	10,20	391
APSD00080750471□00	470	1 kHz,1 V	1.96	0.34	10,20	471
APSD00080750561□00	560	1 kHz,1 V	2.41	0.32	10,20	561
APSD00080750681□00	680	1 kHz,1 V	2.5	0.29	10,20	681
APSD00080750102□00	1000	1 kHz,1 V	2.8	0.19	10,20	102

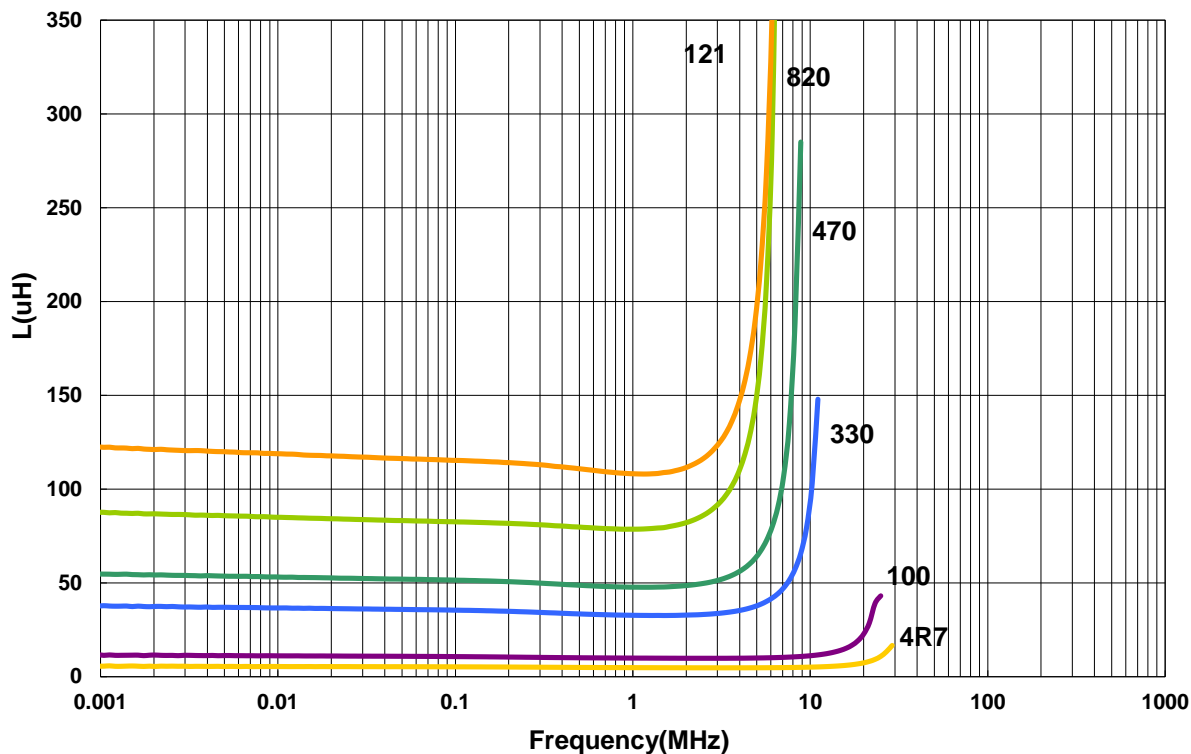
**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Measure Equipment:  
 L: Agilent E4980 or HP4284A (over 1MHz), HP4285A (under 1MHz)  
 RDC: Chroma 16502  
 Isat: HP4284+42841A or WK3260B+WK3265B

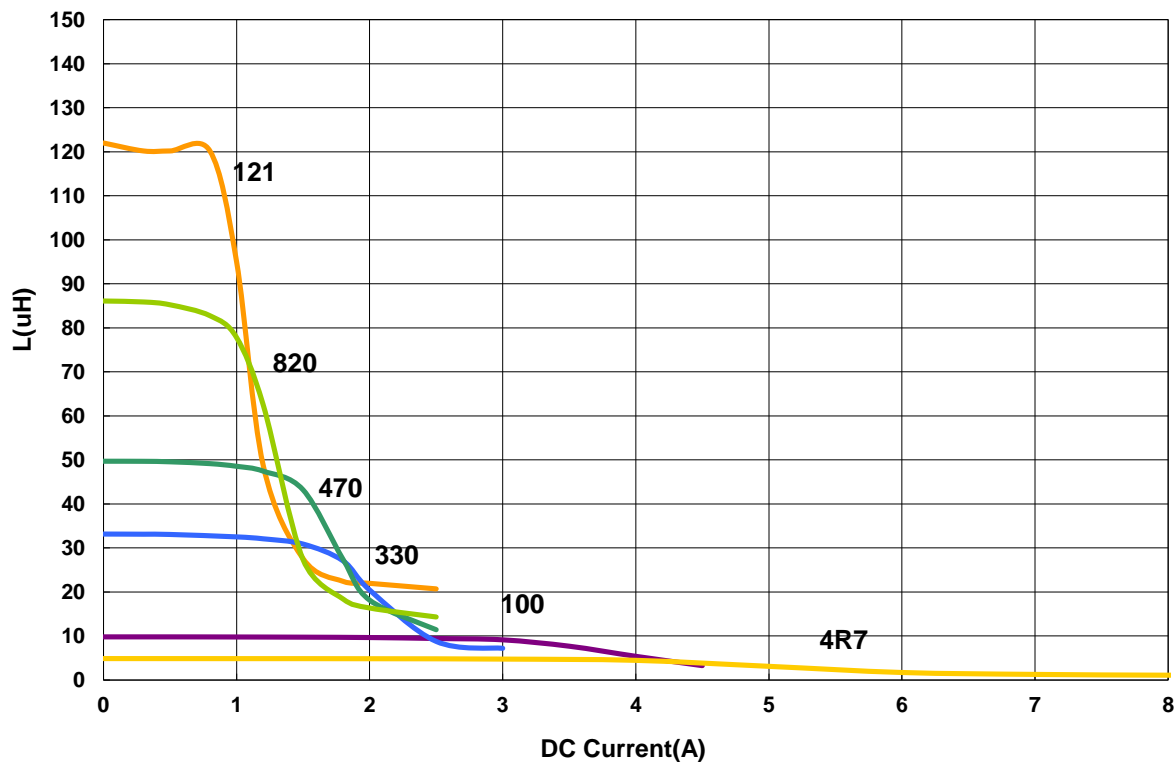
APSD00080750 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

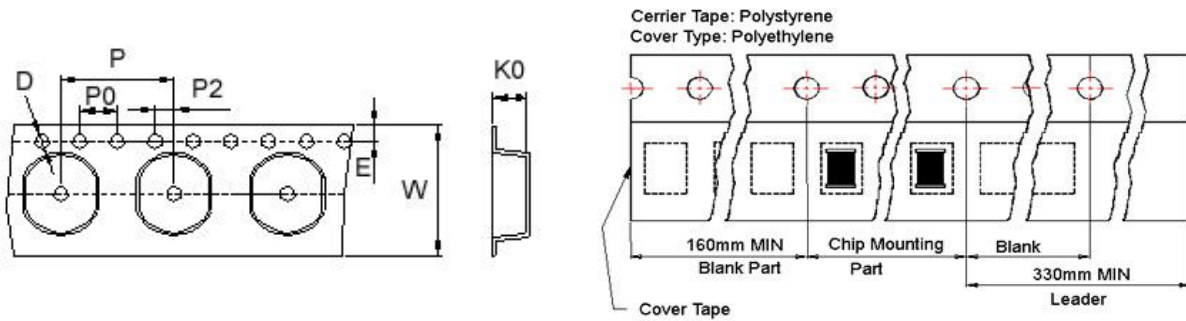


**Power Inductor APSD Series**

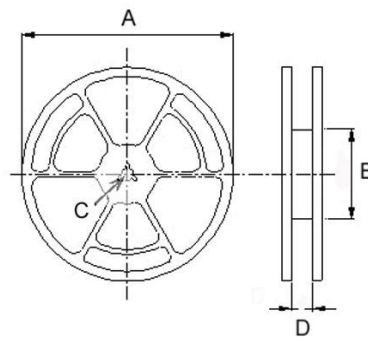
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
APSD00030321	2.5	1.55	1.75	12	8	4	2	330	100	13	13.4	3000
APSD00050432	3.55	1.55	1.75	12	8	4	2	330	100	13	13.4	2000
APSD00060530	3.3	1.5	1.75	16	8	4	2	330	100	13	17.4	2000
APSD00060545	4.8	1.55	1.75	16	8	4	2	330	100	13	17.4	1500
APSD00080735	3.8	1.55	1.75	16	12	4	2	330	100	13	17.4	1000
APSD00080750	5.2	1.55	1.75	16	12	4	2	330	100	13	17.4	700

**Power Inductor APSL Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Power Circuit
Unshield
Wire Wound
Ferrite

**Part Numbering**

A	PSL	00	130952	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			130952 12.95x9.4x5.21	R47 0.47	M ±20%	
			130911 12.95x9.4x11.43	1R0 1.0	T ±30%	
				101 100		

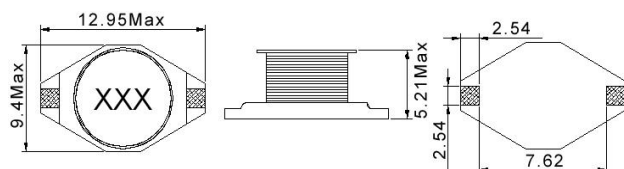
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor APSL Series**

**Automotive  
AEC-Q200**

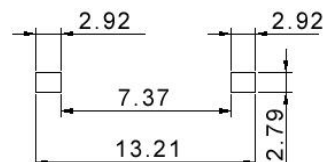
**APSL00130952 Type**

**Dimensions**



unit:mm

**Recommended Land Pattern**



unit:mm

**Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Irms (A)	SRF (MHz)Typ.	Tolerance (±%)	Marking
APSL001309521R0□00	1	100 kHz,0.1 V	0.009	9	6.8	100	20	1R0
APSL001309521R5□00	1.5	100 kHz,0.1 V	0.010	8	6.4	90	20	1R5
APSL001309522R2□00	2.2	100 kHz,0.1 V	0.012	7	6.1	80	20	2R2
APSL001309523R3□00	3.3	100 kHz,0.1 V	0.015	6.4	5.4	65	20	3R3
APSL001309524R7□00	4.7	100 kHz,0.1 V	0.018	5.4	4.8	45	20	4R7
APSL001309526R8□00	6.8	100 kHz,0.1 V	0.027	4.6	4.4	38	20	6R8
APSL00130952100□00	10	100 kHz,0.1 V	0.038	3.8	3.9	30	20	100
APSL00130952120□00	12	100 kHz,0.1 V	0.043	3.5	3.6	27	20	120
APSL00130952150□00	15	100 kHz,0.1 V	0.046	3	3.1	27	20	150
APSL00130952220□00	22	100 kHz,0.1 V	0.085	2.6	2.7	19	20	220
APSL00130952330□00	33	100 kHz,0.1 V	0.100	2	2.1	15	20	330
APSL00130952470□00	47	100 kHz,0.1 V	0.140	1.6	1.8	12	20	470
APSL00130952680□00	68	100 kHz,0.1 V	0.200	1.4	1.5	10	20	680
APSL00130952101□00	100	100 kHz,0.1 V	0.260	1.2	1.3	9	20	101
APSL00130952151□00	150	100 kHz,0.1 V	0.400	1	1	6	20	151
APSL00130952221□00	220	100 kHz,0.1 V	0.610	0.8	0.8	5	20	221
APSL00130952331□00	330	100 kHz,0.1 V	1.020	0.6	0.6	4.5	20	331
APSL00130952471□00	470	100 kHz,0.1 V	1.270	0.5	0.5	3.5	20	471
APSL00130952681□00	680	100 kHz,0.1 V	2.020	0.4	0.4	2.5	20	681
APSL00130952102□00	1000	100 kHz,0.1 V	3.000	0.3	0.3	2	20	102
APSL00130952152□00	1500	100 kHz,0.1 V	4.500	0.25	0.2	1.4	20	152

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 20% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Measure Equipment:  
 L: Agilent E4980 or HP4284A  
 RDC: Chroma 16502  
 Isat: HP4284+42841A or WK3260B+WK3265B  
 SRF: HP4291A or HP4192A



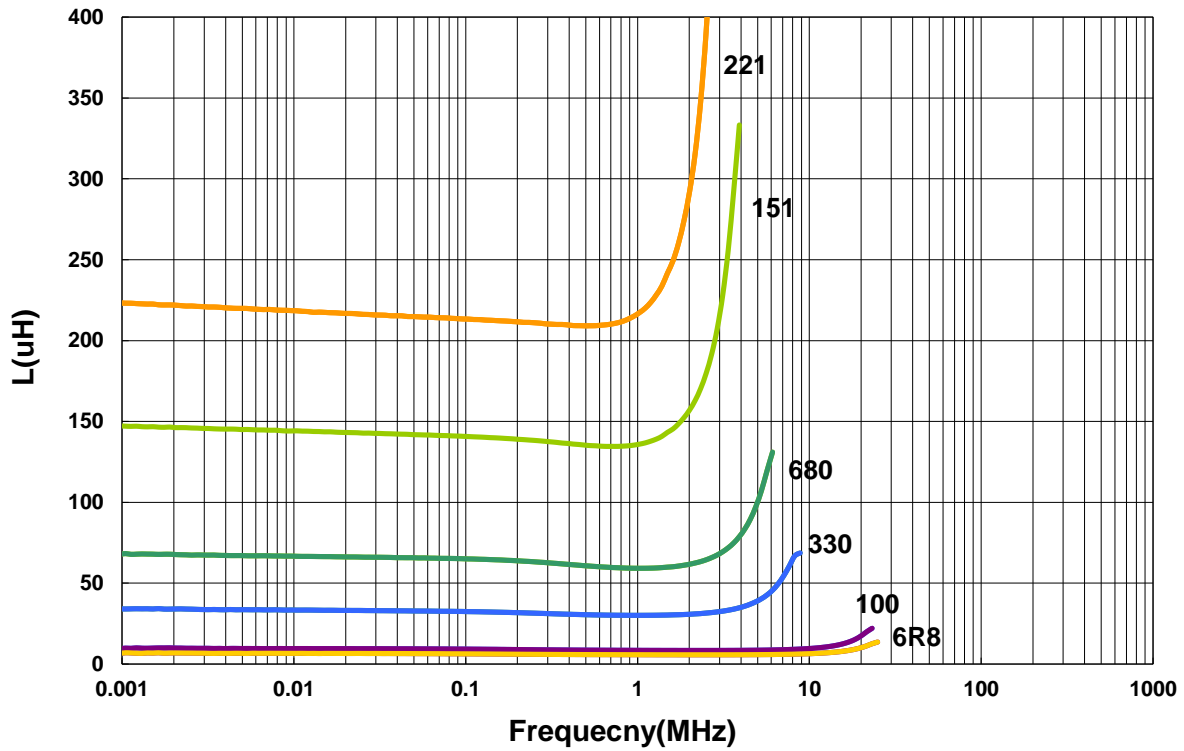
**Power Inductor APSL Series**

**Automotive  
AEC-Q200**

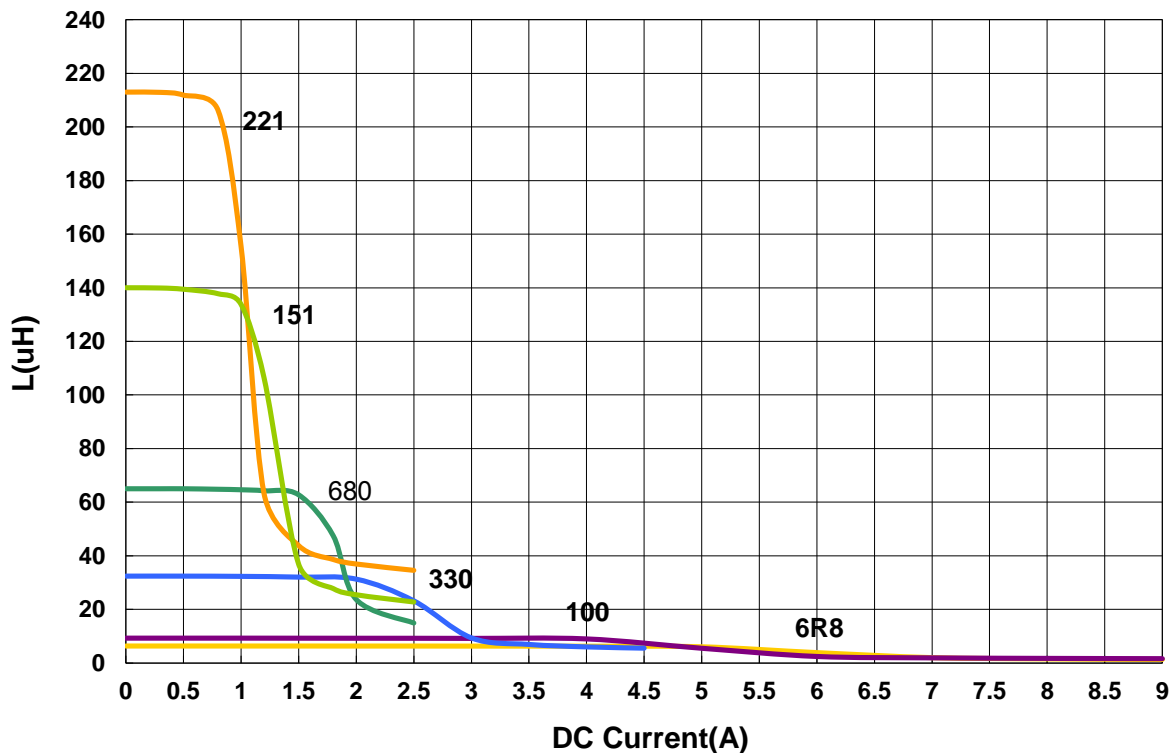
**APSL00130952 Type**

**Characteristics Graph**

**Inductance vs. Frequency Characteristics**



**Inductance vs. DC Current**

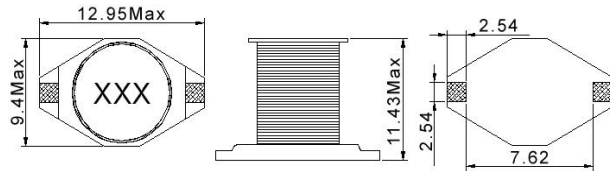


Power Inductor APSL Series

Automotive  
AEC-Q200

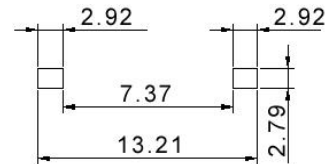
APSL00130911 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Irms (A)	SRF (MHz)Typ.	Tolerance (±%)	Marking
APSL001309112R2□00	2.2	100 kHz,0.1 V	0.007	13			20	2R2
APSL001309113R3□00	3.3	100 kHz,0.1 V	0.025	10	4	30	20	3R3
APSL001309114R7□00	4.7	100 kHz,0.1 V	0.033	8	3.5	25	20	4R7
APSL001309116R8□00	6.8	100 kHz,0.1 V	0.025	7			20	6R8
APSL00130911100□00	10	100 kHz,0.1 V	0.033	8	3.5	22	20	100
APSL00130911150□00	15	100 kHz,0.1 V	0.042	7	3	18	20	150
APSL00130911220□00	22	100 kHz,0.1 V	0.054	5.5	2.5	11	20	220
APSL00130911330□00	33	100 kHz,0.1 V	0.080	4	2	9	20	330
APSL00130911470□00	47	100 kHz,0.1 V	0.100	3.8	1.6	8	20	470
APSL00130911680□00	68	100 kHz,0.1 V	0.170	3	1.2	7	20	680
APSL00130911101□00	100	100 kHz,0.1 V	0.220	2.5	1.2	5	20	101
APSL00130911151□00	150	100 kHz,0.1 V	0.340	2	0.9	4	20	151
APSL00130911221□00	220	100 kHz,0.1 V	0.440	1.6	0.7	3.5	20	221
APSL00130911271□00	270	100 kHz,0.1 V	0.600	1.4	0.6	2.5	20	271
APSL00130911331□00	330	100 kHz,0.1 V	0.700	1.2	0.6	2.5	20	331
APSL00130911471□00	470	100 kHz,0.1 V	0.950	1	0.3	2	20	471
APSL00130911681□00	680	100 kHz,0.1 V	1.200	1	0.2	2	20	681
APSL00130911102□00	1000	100 kHz,0.1 V	2.000	0.8	0.1	1.5	20	102

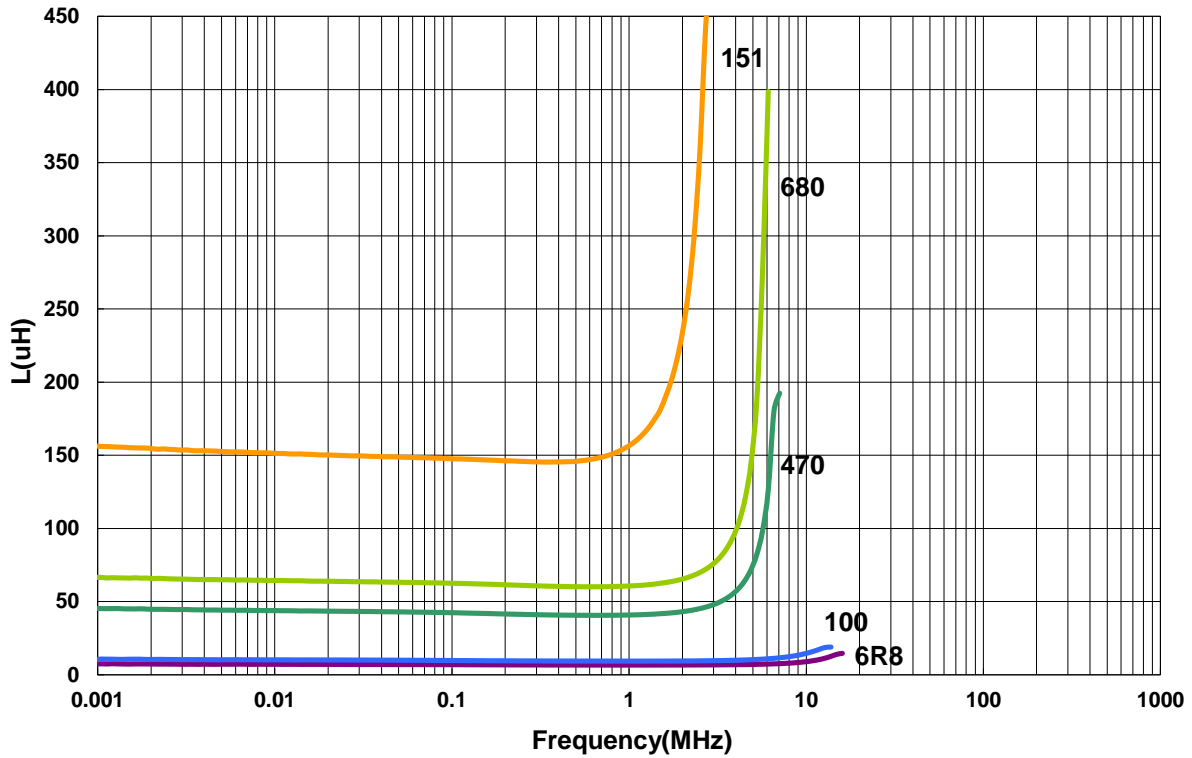
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 20% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Measure Equipment:  
L: Agilent/ E4980 or HP4284A  
RDC: Chroma 16502  
Isat: HP4284+42841A or WK3260B+WK3265B  
SRF: HP4291A or HP4192A

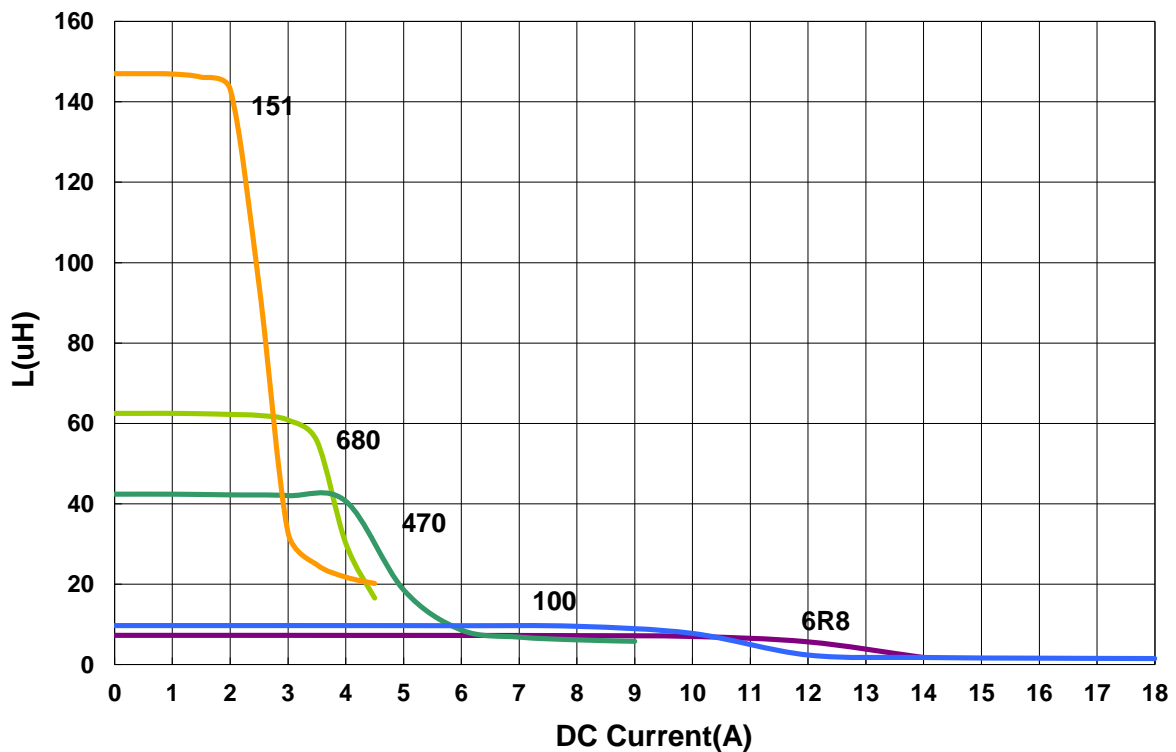
APSL00130911 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

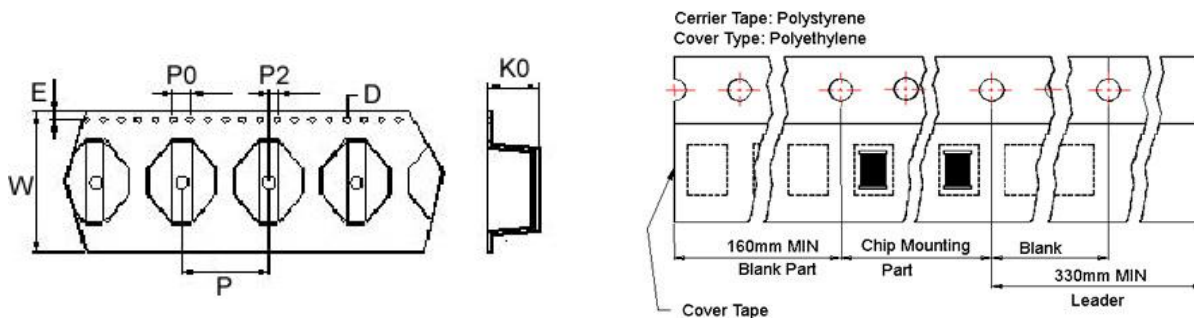


**Power Inductor APSL Series**

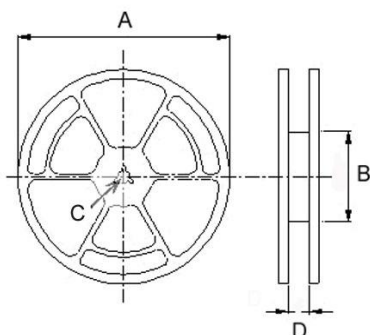
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



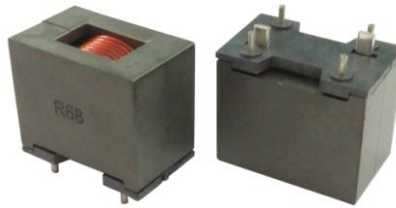
Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	K0	D	E	W	P	P0	P2	A	B	C	D	
APSL00130952	5.4	1.55	1.75	24	16	4	2	330	100	13	13.4	750
APSL00130911	11.5	1.55	1.75	24	20	4	2	330	100	13	13.4	225

**Power Inductor APDP Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Ultra High Current
- Ferrite

**Part Numbering**

A	PDP	00	271724	100	K	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			271724 26.92x16.97x23.75	4R7 4.7 100 10	K ±10%	

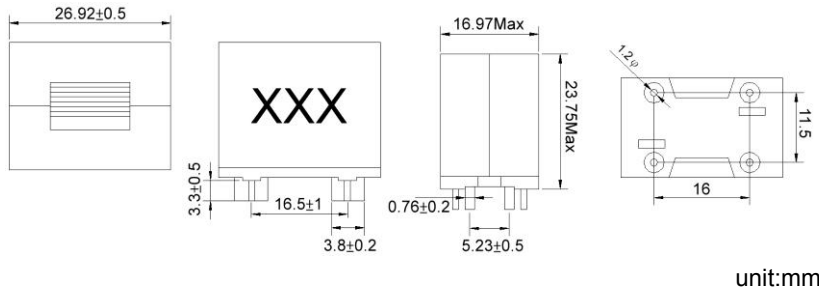
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Power Inductor APDP Series**

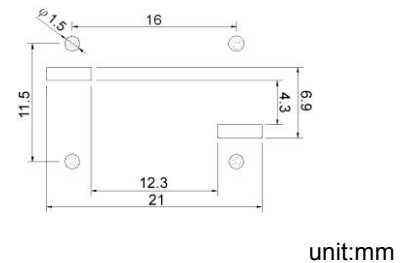
**Automotive  
AEC-Q200**

**APDP00271724 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	SRF (MHz)Min	RDC (mΩ)Max	Isat1(A) Max(Typ)	Isat2(A) (A)Typ	Isat3(A) (A)Typ	Irms (A)Max	Tol. (±%)	Marking
APDP002717244R7K00	4.7	300kHz/0.1V	16	2.6	58(63)	60(69)	62(72)	26	10	4R7
APDP002717246R8K00	6.8	300kHz/0.1V	12	2.6	41(48)	43(53)	44.5(56)	26	10	6R8
APDP00271724100K00	10	300kHz/0.1V	10	2.6	25(30)	28(34)	29(37)	26	10	100
APDP00271724110K00	11	300kHz/0.1V	10	2.6	26(31)	28(33)	28.5(34)	26	10	110

**Note: When ordering, please specify tolerance code. Tolerance: K=±10%**

1. Operating temperature range - 40°C ~ 125°C
2. Isat1 for Inductance drop 10%
3. Isat2 for Inductance drop 20%
4. Isat3 for Inductance drop 30%
5. Irms for a 40°C temprature rise from 25°C ambient with current
6. Caution: This series is not inteded for use in high vibration environments.

We advise using additional means of securing the part to the circuit board to ensure its adhesion.

7. Measure Equipment:

- L: WK3260B or WK6500P
- SRF: CHEN HWA502 or 16502
- RDC: CHEN HWA502 or 16502
- Isat: WK3260B+WK3265B
- Irms: CHROMA 1810

Chip Inductor ASCQ Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



- Noise  
Suppression
- Shield
- Multilayer
- Ceramic
- High  
Frequency

■ Part Numbering

A	SCQ	00	060303	1N0	B	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			060303 0.6x0.3x0.3	0N6 0.6 1N0 1.0 10N 10	B ±0.1nH C ±0.2nH H ±3%	

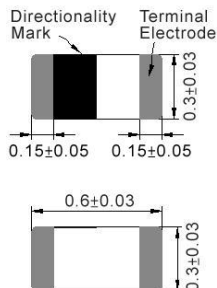
This specification applies to Multilayer Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

## Chip Inductor ASCQ Series

Automotive  
AEC-Q200

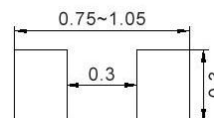
### ASCQ00060303 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance	L,Q	Q	SRF	RDC	IDC	Tolerance
	(nH)	Test Freq.	Min.	(MHz)Min.	(Ω)Max.	(mA)Max.	(±%)
ASCQ000603030N6□00	0.6	500 MHz,500 mV	14	10000	0.06	900	B
ASCQ000603030N7□00	0.7	500 MHz,500 mV	14	10000	0.06	900	B
ASCQ000603030N8□00	0.8	500 MHz,500 mV	14	10000	0.06	900	B
ASCQ000603030N9□00	0.9	500 MHz,500 mV	14	10000	0.06	900	B
ASCQ000603031N0□00	1.0	500 MHz,500 mV	14	10000	0.07	850	B
ASCQ000603031N1□00	1.1	500 MHz,500 mV	14	10000	0.07	850	B
ASCQ000603031N2□00	1.20	500 MHz,500 mV	14	10000	0.08	800	B
ASCQ000603031N3□00	1.30	500 MHz,500 mV	14	10000	0.09	760	B
ASCQ000603031N4□00	1.40	500 MHz,500 mV	14	10000	0.12	640	B
ASCQ000603031N5□00	1.50	500 MHz,500 mV	14	10000	0.15	600	B
ASCQ000603031N6□00	1.60	500 MHz,500 mV	14	10000	0.19	510	B
ASCQ000603031N7□00	1.70	500 MHz,500 mV	14	10000	0.11	680	B
ASCQ000603031N8□00	1.80	500 MHz,500 mV	14	10000	0.12	640	B
ASCQ000603031N9□00	1.90	500 MHz,500 mV	14	10000	0.13	620	B
ASCQ000603032N0□00	2.00	500 MHz,500 mV	14	10000	0.15	600	B
ASCQ000603032N1□00	2.10	500 MHz,500 mV	14	10000	0.16	550	B
ASCQ000603032N2□00	2.20	500 MHz,500 mV	14	10000	0.20	500	B
ASCQ000603032N3□00	2.30	500 MHz,500 mV	14	10000	0.24	460	B
ASCQ000603032N4□00	2.4	500 MHz,500 mV	14	10000	0.26	430	B
ASCQ000603032N5□00	2.5	500 MHz,500 mV	14	10000	0.28	415	B
ASCQ000603032N6□00	2.6	500 MHz,500 mV	14	10000	0.30	405	B
ASCQ000603032N7□00	2.7	500 MHz,500 mV	14	10000	0.32	400	B
ASCQ000603032N8□00	2.8	500 MHz,500 mV	14	9500	0.20	500	B
ASCQ000603032N9□00	2.9	500 MHz,500 mV	14	9300	0.22	480	B
ASCQ000603033N0□00	3	500 MHz,500 mV	14	9100	0.24	460	B
ASCQ000603033N1□00	3.1	500 MHz,500 mV	14	8900	0.25	450	B
ASCQ000603033N2□00	3.2	500 MHz,500 mV	14	8700	0.28	415	B
ASCQ000603033N3□00	3.3	500 MHz,500 mV	14	8600	0.28	415	B
ASCQ000603033N4□00	3.4	500 MHz,500 mV	14	8400	0.29	410	B
ASCQ000603033N5□00	3.5	500 MHz,500 mV	14	8200	0.30	405	B
ASCQ000603033N6□00	3.6	500 MHz,500 mV	14	8100	0.32	400	B
ASCQ000603033N7□00	3.7	500 MHz,500 mV	14	8000	0.36	370	B
ASCQ000603033N8□00	3.8	500 MHz,500 mV	14	7800	0.40	355	B
ASCQ000603033N9□00	3.9	500 MHz,500 mV	14	7700	0.41	350	B

**Note: When ordering, please specify tolerance code. Tolerance: B=±0.1nH / C=±0.2nH / H=±3%**

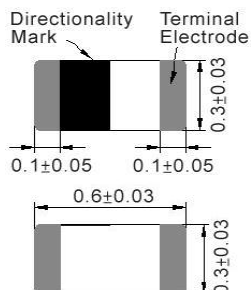
1. Operating temperature range - 40°C ~ 125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent 16197A  
 SRF: Agilent E4991A or HP19196C  
 RDC: HP4338B or CHEN HWA 502



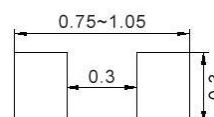
ASCQ00060303 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

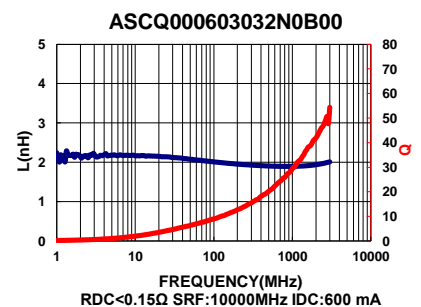
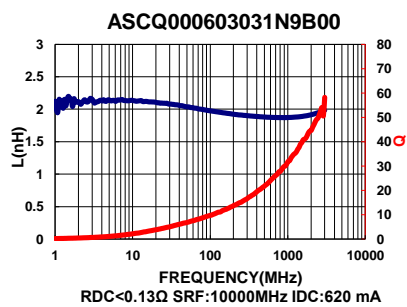
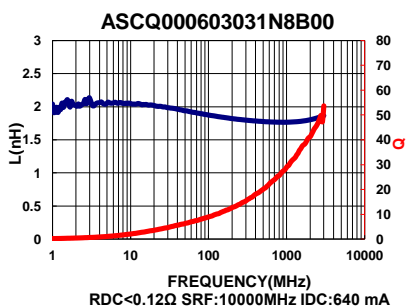
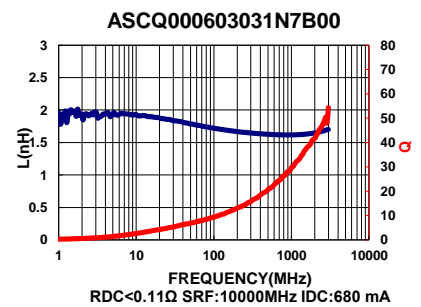
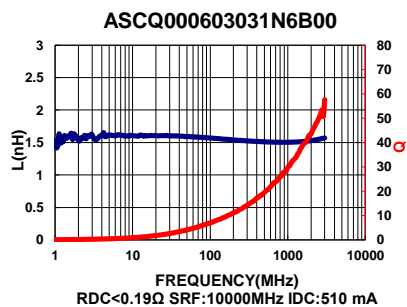
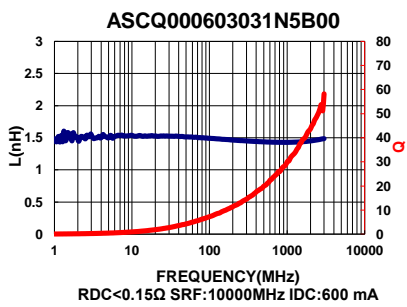
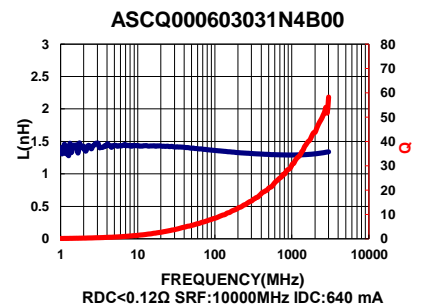
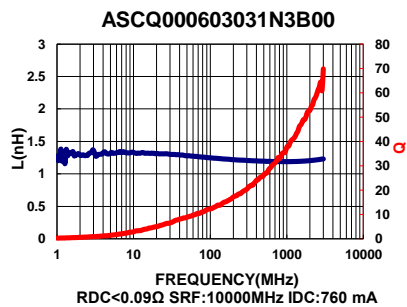
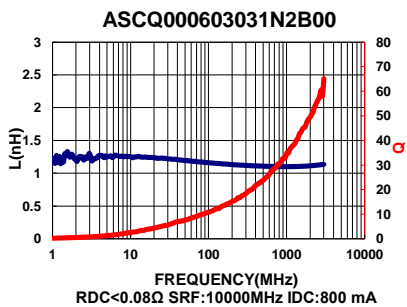
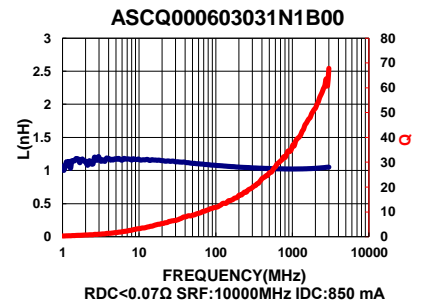
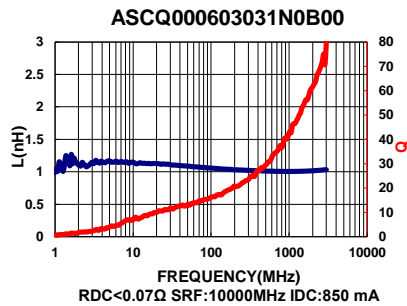
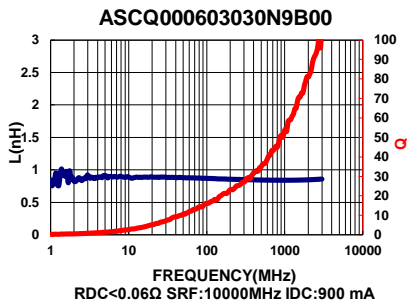
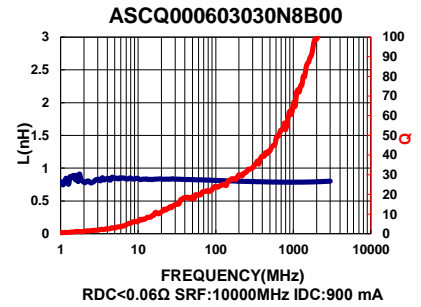
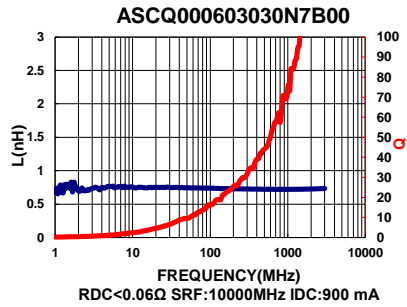
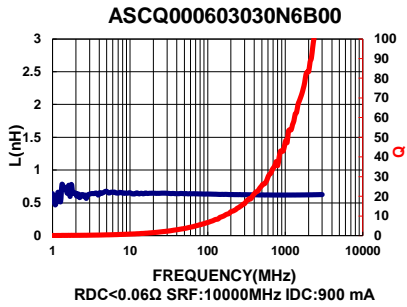
Part No.	Inductance	L,Q	Q	SRF	RDC	IDC	Tolerance
	(nH)	Test Freq.	Min.	(MHz)Min.	(Ω)Max.	(mA)Max.	(±%)
ASCQ000603034N3□00	4.3	500 MHz,500 mV	14	6500	0.48	320	C
ASCQ000603034N7□00	4.7	500 MHz,500 mV	14	6400	0.42	350	C
ASCQ000603035N1□00	5.1	500 MHz,500 mV	14	6100	0.45	330	C
ASCQ000603035N6□00	5.6	500 MHz,500 mV	14	5500	0.47	325	C
ASCQ000603036N2□00	6.2	500 MHz,500 mV	14	5100	0.52	305	C
ASCQ000603036N8□00	6.8	500 MHz,500 mV	14	4800	0.55	305	H
ASCQ000603037N5□00	7.5	500 MHz,500 mV	14	4600	0.55	305	H
ASCQ000603038N2□00	8.2	500 MHz,500 mV	14	4300	0.57	290	H
ASCQ000603039N1□00	9.1	500 MHz,500 mV	14	4000	0.65	270	H
ASCQ0006030310N□00	10	500 MHz,500 mV	14	3800	0.85	230	H
ASCQ0006030312N□00	12	500 MHz,500 mV	14	3300	0.85	230	H
ASCQ0006030315N□00	15	500 MHz,500 mV	14	2600	0.89	220	H
ASCQ0006030318N□00	18	500 MHz,500 mV	14	2300	1.05	205	H
ASCQ0006030322N□00	22	500 MHz,500 mV	14	1900	1.29	190	H

**Note: When ordering, please specify tolerance code. Tolerance: B=±0.1nH / C=±0.2nH / H=±3%**

1. Operating temperature range - 40°C ~ 125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Measure Equipment:  
L & Q: Agilent E4991A+Agilent 16197A  
SRF: Agilent E4991A or HP19196C  
RDC: HP4338B or CHEN HWA 502

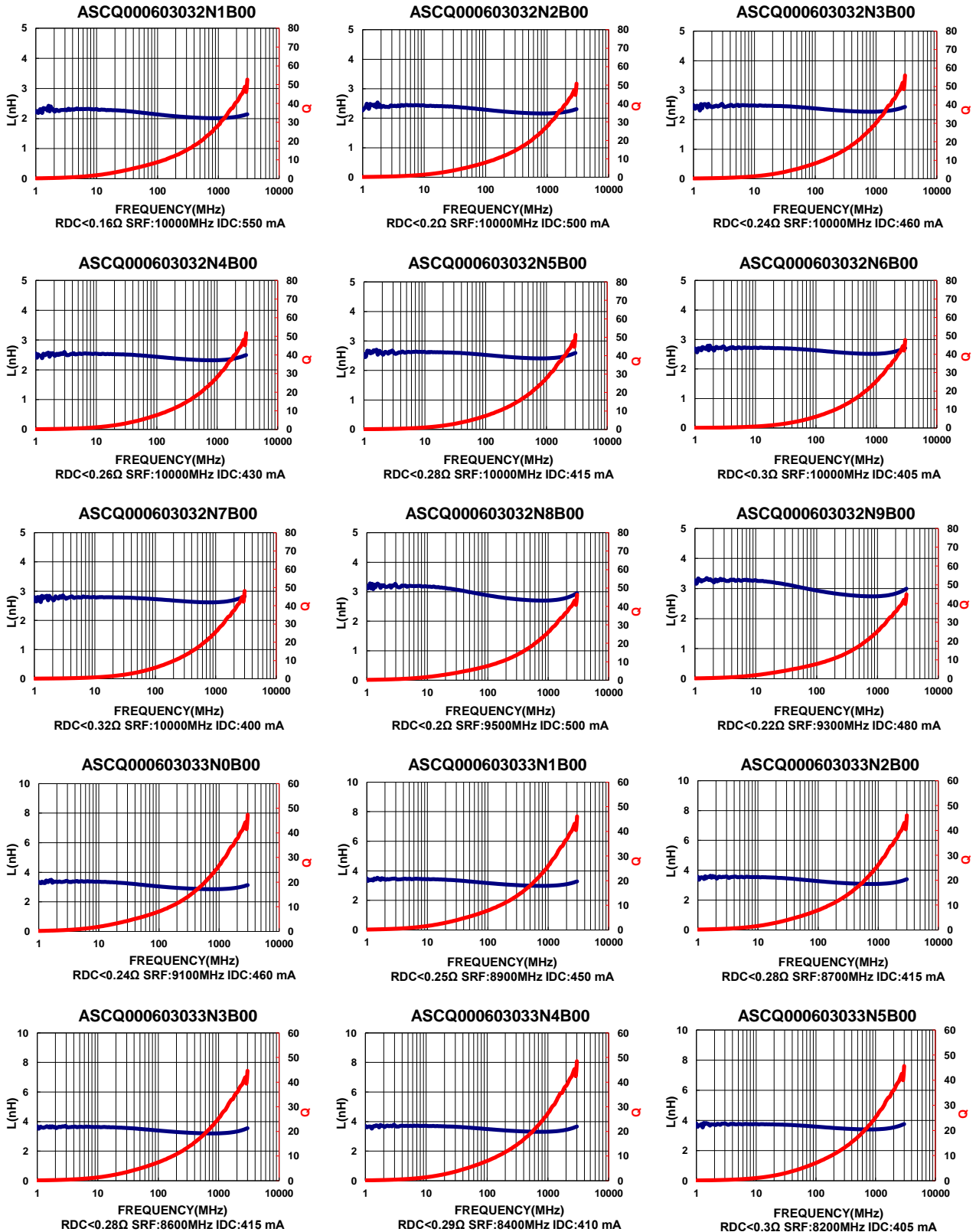
ASCQ00060303 Type

Characteristics Graph



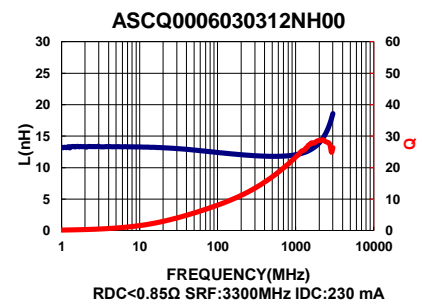
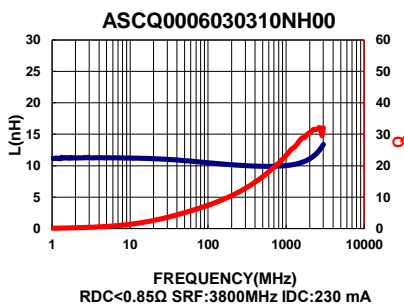
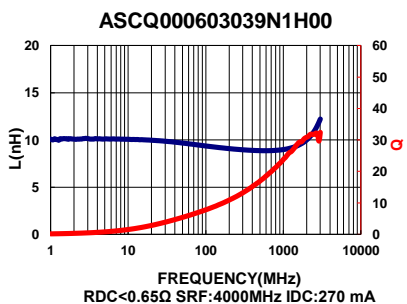
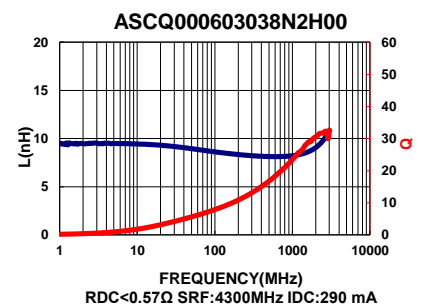
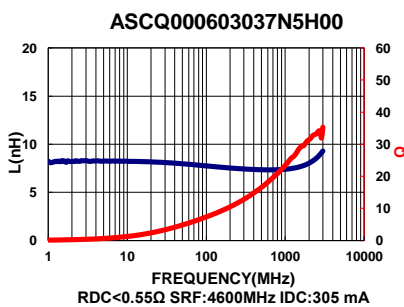
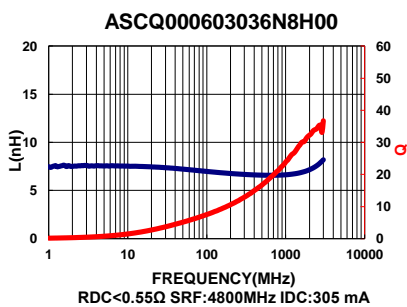
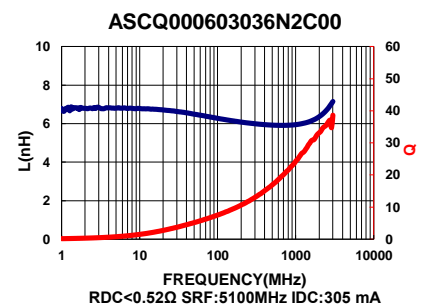
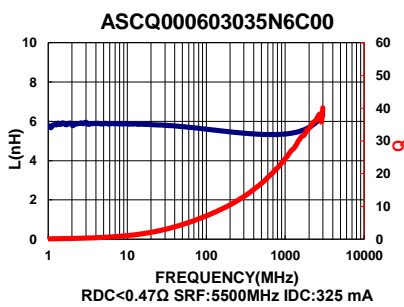
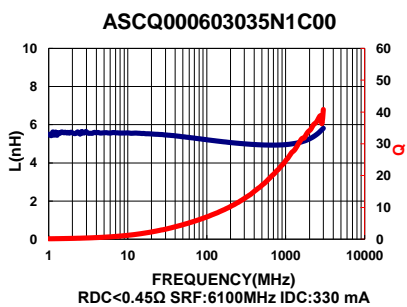
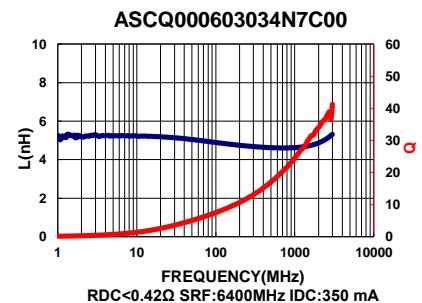
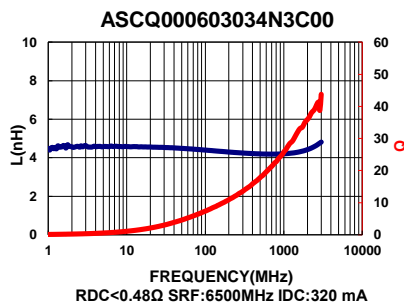
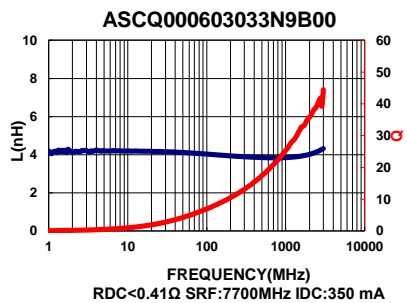
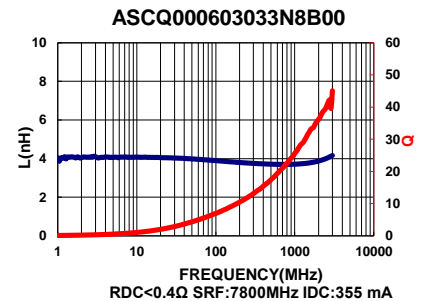
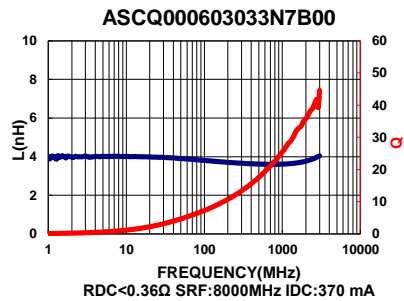
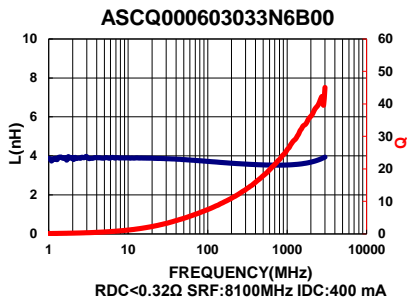
ASCQ00060303 Type

Characteristics Graph



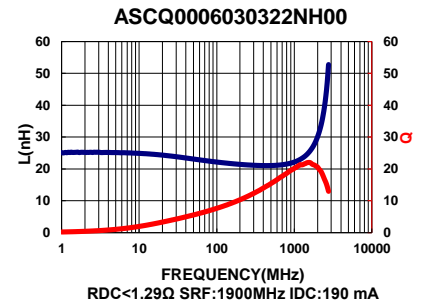
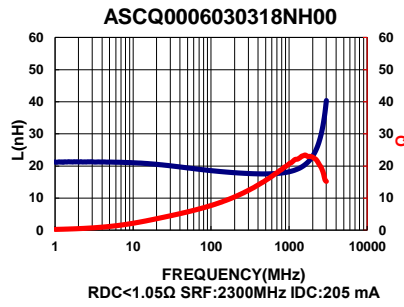
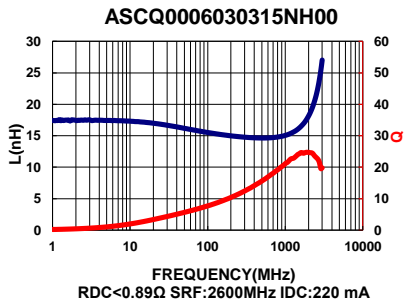
ASCQ00060303 Type

Characteristics Graph



ASCQ00060303 Type

■ Characteristics Graph

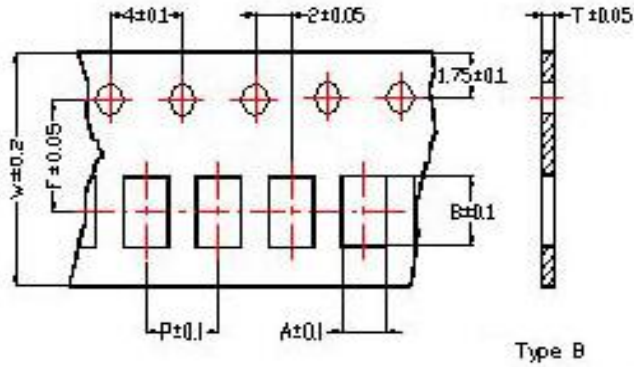


**Chip Inductor ASCQ Series**

**Automotive  
AEC-Q200**

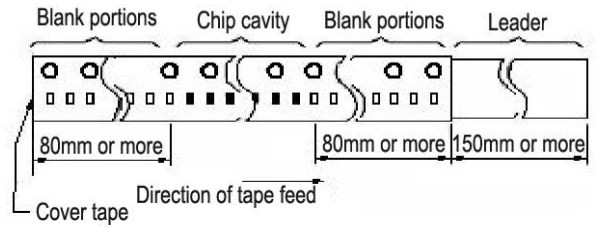
**■ Packaging**

**Tape Dimensions**

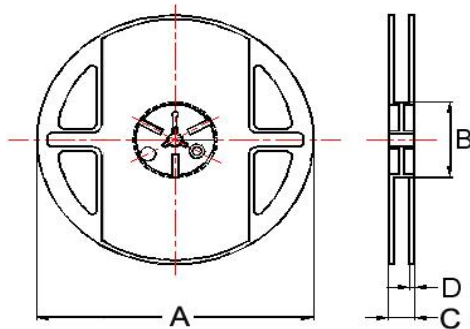


**Tape Material**

Carrier tape : Paper  
Cover tape : Polyethylene



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / Reel
ASCQ0060303	0.37	0.67	0.42	8	2	3.5	180	60	13	1.5	15000

**Chip Inductor ASCH Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Noise  
Suppression
- Shield
- Multilayer
- Ceramic
- High  
Frequency

**Part Numbering**

A	SCH	00	100505	1N0	S	CP
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			100505 1.0x0.5x0.5	1N0 1.0	S ±0.3nH	00 General
			160808 1.6x0.8x0.8	10N 10	J ±5%	CP Low RDC
				R10 100		

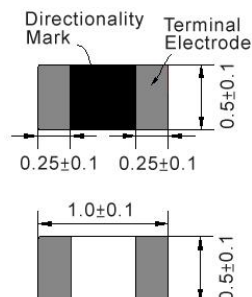
This specification applies to Multilayer Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

## Chip Inductor ASCH Series

Automotive  
AEC-Q200

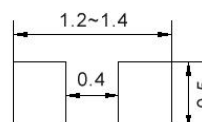
### ASCH00100505\_CP Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance	L,Q	Q	SRF	RDC	Rated Current	Tolerance
	(nH)	Test Freq.	Min.	(MHz)Min.	(Ω)Max.	(mA)Max.	(±%)
ASCH001005051N0□CP	1.0	100 MHz,200 mV	8	10000	0.07	400	±0.3nH
ASCH001005051N1□CP	1.1	100 MHz,200 mV	8	10000	0.10	400	±0.3nH
ASCH001005051N2□CP	1.2	100 MHz,200 mV	8	10000	0.09	400	±0.3nH
ASCH001005051N3□CP	1.3	100 MHz,200 mV	8	9000	0.10	400	±0.3nH
ASCH001005051N5□CP	1.5	100 MHz,200 mV	8	9000	0.10	400	±0.3nH
ASCH001005051N6□CP	1.6	100 MHz,200 mV	8	8700	0.10	400	±0.3nH
ASCH001005051N8□CP	1.8	100 MHz,200 mV	8	8700	0.10	400	±0.3nH
ASCH001005052N0□CP	2.0	100 MHz,200 mV	8	8100	0.10	400	±0.3nH
ASCH001005052N2□CP	2.2	100 MHz,200 mV	8	8100	0.12	400	±0.3nH
ASCH001005052N4□CP	2.4	100 MHz,200 mV	8	7700	0.15	400	±0.3nH
ASCH001005052N7□CP	2.7	100 MHz,200 mV	8	7700	0.15	400	±0.3nH
ASCH001005053N0□CP	3.0	100 MHz,200 mV	8	6300	0.15	400	±0.3nH
ASCH001005053N3□CP	3.3	100 MHz,200 mV	8	6300	0.15	400	±0.3nH
ASCH001005053N6□CP	3.6	100 MHz,200 mV	8	6100	0.15	400	±0.3nH
ASCH001005053N9□CP	3.9	100 MHz,200 mV	8	6100	0.18	400	±0.3nH
ASCH001005054N3□CP	4.3	100 MHz,200 mV	8	6000	0.18	400	±0.3nH
ASCH001005054N7□CP	4.7	100 MHz,200 mV	8	6000	0.18	400	±0.3nH
ASCH001005055N1□CP	5.1	100 MHz,200 mV	8	5300	0.20	400	±0.3nH
ASCH001005055N6□CP	5.6	100 MHz,200 mV	8	5100	0.20	400	±0.3nH
ASCH001005056N2□CP	6.2	100 MHz,200 mV	8	4500	0.22	400	±0.3nH
ASCH001005056N8□CP	6.8	100 MHz,200 mV	8	4550	0.24	400	5
ASCH001005057N5□CP	7.5	100 MHz,200 mV	8	4200	0.24	300	5
ASCH001005058N2□CP	8.2	100 MHz,200 mV	8	4100	0.24	300	5
ASCH001005059N1□CP	9.1	100 MHz,200 mV	8	3900	0.26	300	5
ASCH0010050510N□CP	10	100 MHz,200 mV	8	3900	0.26	300	5
ASCH0010050512N□CP	12	100 MHz,200 mV	8	3000	0.28	300	5
ASCH0010050515N□CP	15	100 MHz,200 mV	8	2500	0.32	300	5
ASCH0010050518N□CP	18	100 MHz,200 mV	8	2200	0.36	300	5
ASCH0010050522N□CP	22	100 MHz,200 mV	8	1900	0.42	300	5
ASCH0010050527N□CP	27	100 MHz,200 mV	8	1700	0.46	300	5

**Note: When ordering, please specify tolerance code. Tolerance: C=±0.2nH / S=±0.3nH / J=±5% / K=±10%**

1. Operating temperature range - 40°C ~ 125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Residual impedance of short chip : 0nH
4. Measure Equipment:

L & Q: Agilent E4991A+Agilent 16197A

SRF: Agilent E4991A or HP19196C

RDC: HP4338B or CHEN HWA 502

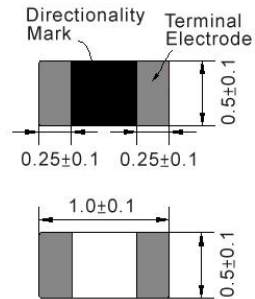


Chip Inductor ASCH Series

Automotive  
AEC-Q200

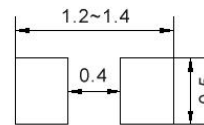
ASCH00100505\_CP Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

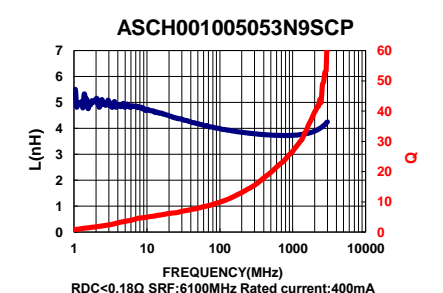
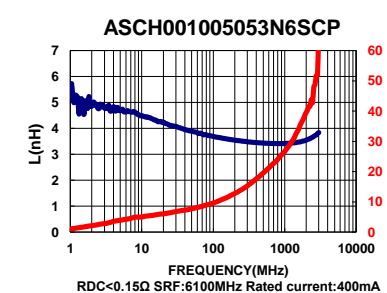
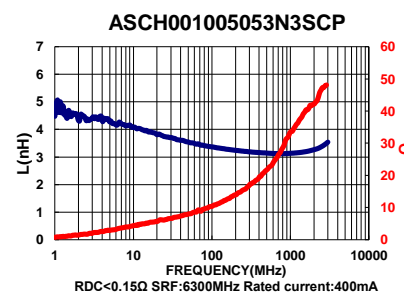
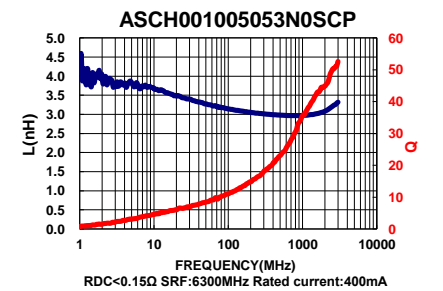
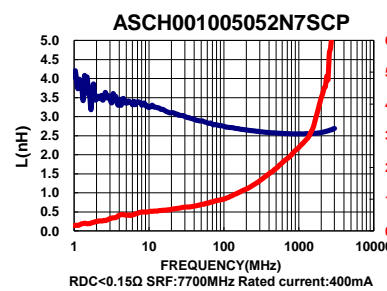
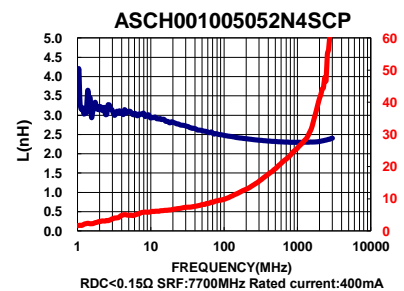
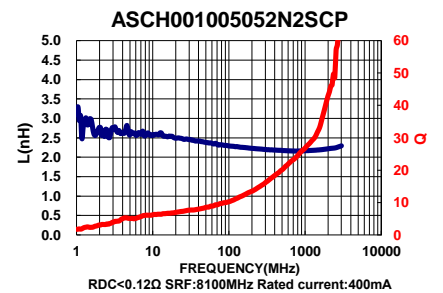
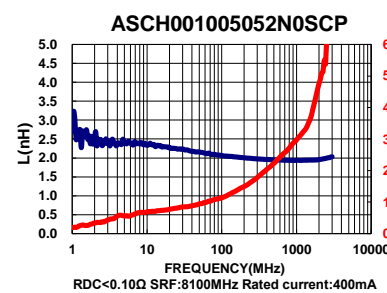
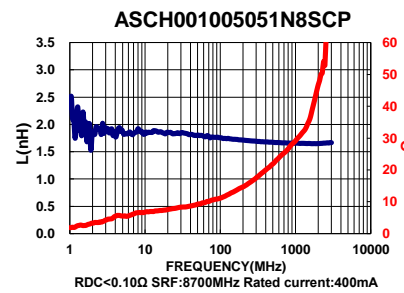
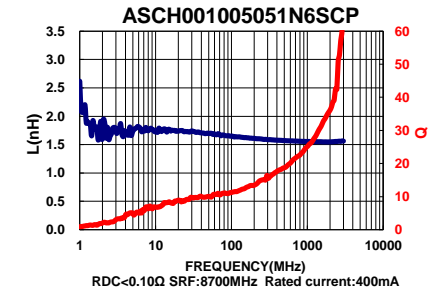
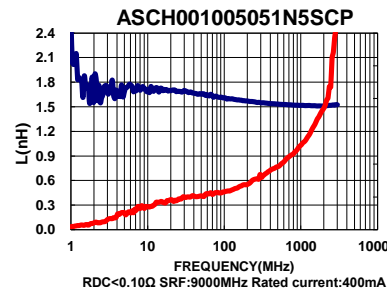
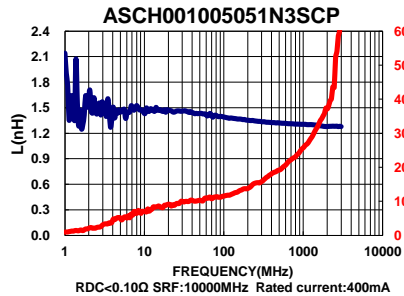
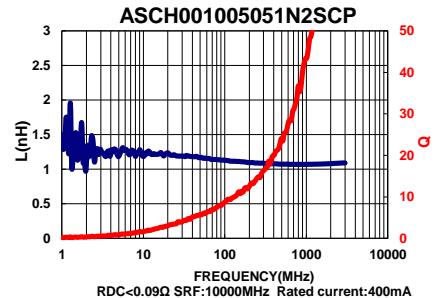
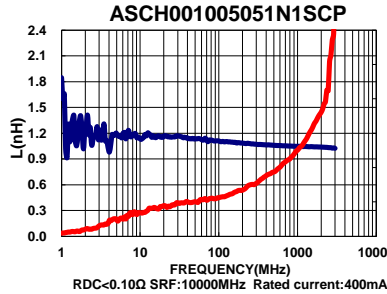
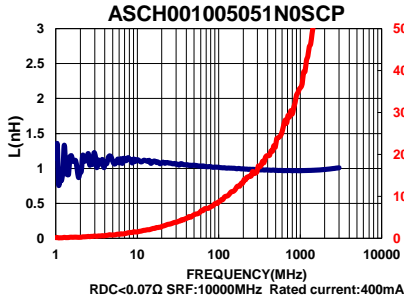
Part No.	Inductance	L,Q	Q	SRF	RDC	Rated Current	Tolerance
	(nH)	Test Freq.	Min.	(MHz)Min.	(Ω)Max.	(mA)Max.	(±%)
ASCH0010050533N□CP	33	100 MHz,200 mV	8	1600	0.58	200	5
ASCH0010050539N□CP	39	100 MHz,200 mV	8	1200	0.65	200	5
ASCH0010050547N□CP	47	100 MHz,200 mV	8	1000	0.72	200	5
ASCH0010050556N□CP	56	100 MHz,200 mV	8	800	0.82	200	5
ASCH0010050568N□CP	68	100 MHz,200 mV	8	800	0.92	180	5
ASCH0010050582N□CP	82	100 MHz,200 mV	8	700	1.20	150	5
ASCH00100505R10□CP	100	100 MHz,200 mV	8	900	2.00	100	5
ASCH00100505R12□CP	120	100 MHz,200 mV	8	800	2.20	100	5
ASCH00100505R15□CP	150	100 MHz,200 mV	8	700	3.50	100	5
ASCH00100505R18□CP	180	100 MHz,200 mV	8	600	3.80	100	5
ASCH00100505R22□CP	220	100 MHz,200 mV	8	500	4.20	100	5
ASCH00100505R27□CP	270	100 MHz,200 mV	8	500	4.80	100	5

Note: When ordering, please specify tolerance code. Tolerance: C=±0.2nH / S=±0.3nH / J=±5% / K=±10%

1. Operating temperature range - 40°C ~ 125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Residual impedance of short chip : 0nH
4. Measure Equipment:  
L & Q: Agilent E4991A+Agilent 16197A  
SRF: Agilent E4991A or HP19196C  
RDC: HP4338B or CHEN HWA 502

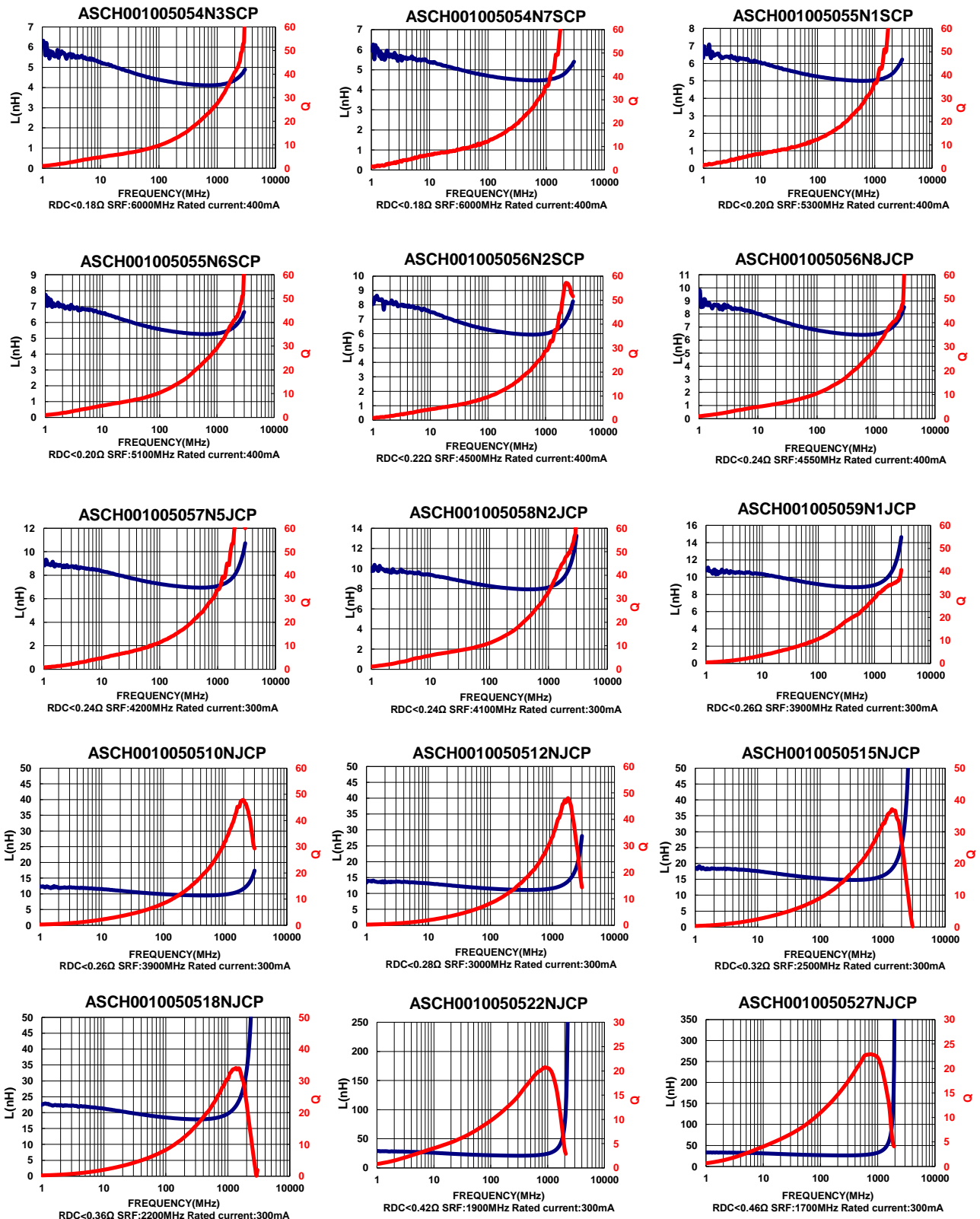
ASCH00100505\_CP Type

Characteristics Graph



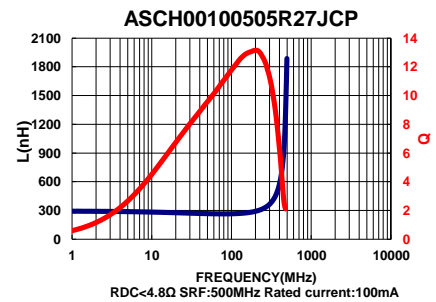
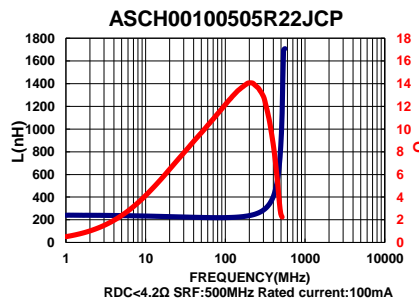
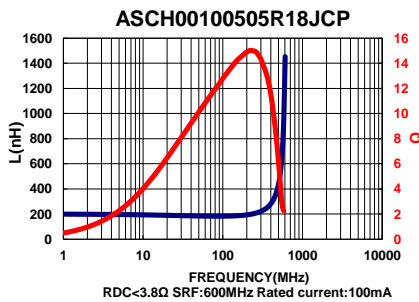
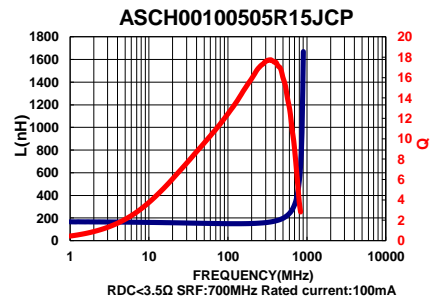
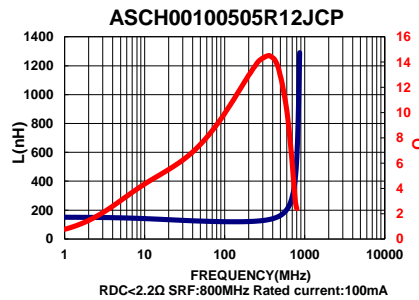
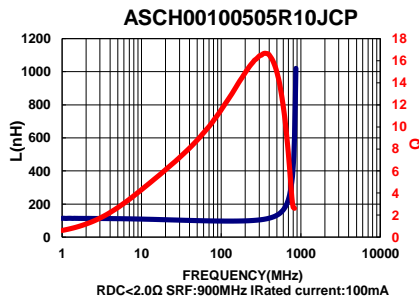
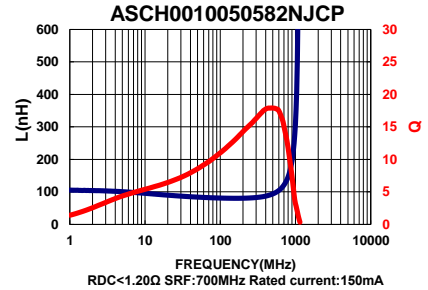
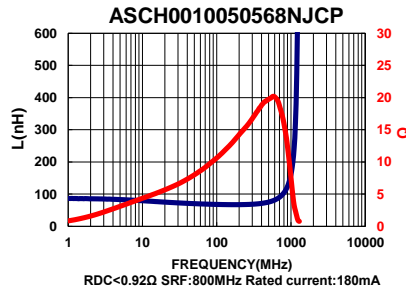
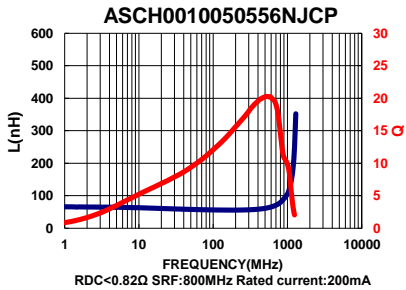
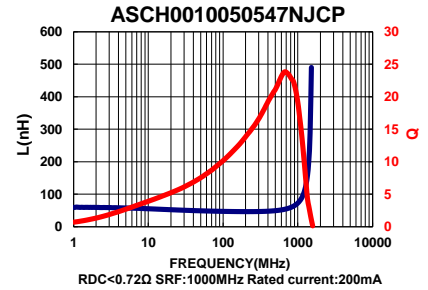
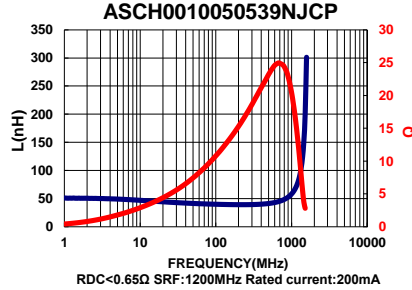
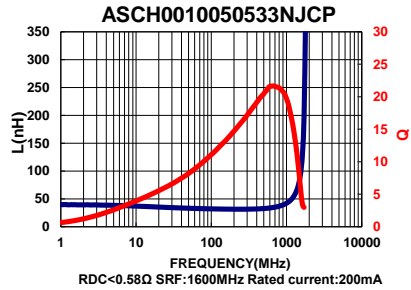
ASCH00100505\_CP Type

Characteristics Graph



ASCH00100505\_CP Type

Characteristics Graph

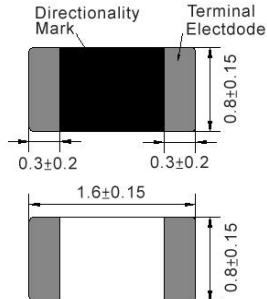


## Chip Inductor ASCH Series

Automotive  
AEC-Q200

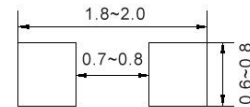
### ASCH00160808 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance	L,Q	Q	SRF	RDC	IDC	Tolerance
	(nH)	Test Freq.	Min.	(MHz)Min.	(Ω)Max.	(mA)Max.	(±%)
ASCH001608081N0□00	1.0	100 MHz,200 mV	8	10000	0.10	600	±0.3nH
ASCH001608081N2□00	1.2	100 MHz,200 mV	8	10000	0.10	600	±0.3nH
ASCH001608081N5□00	1.5	100 MHz,200 mV	8	8000	0.10	600	±0.3nH
ASCH001608081N6□00	1.6	100 MHz,200 mV	8	8000	0.10	600	±0.3nH
ASCH001608081N8□00	1.8	100 MHz,200 mV	8	8000	0.10	600	±0.3nH
ASCH001608082N2□00	2.2	100 MHz,200 mV	8	7200	0.10	600	±0.3nH
ASCH001608082N7□00	2.7	100 MHz,200 mV	10	6200	0.10	600	±0.3nH
ASCH001608083N0□00	3.0	100 MHz,200 mV	10	5200	0.12	600	±0.3nH
ASCH001608083N3□00	3.3	100 MHz,200 mV	10	5200	0.12	600	±0.3nH
ASCH001608083N6□00	3.6	100 MHz,200 mV	10	5000	0.14	600	±0.3nH
ASCH001608083N9□00	3.9	100 MHz,200 mV	10	5000	0.14	600	±0.3nH
ASCH001608084N3□00	4.3	100 MHz,200 mV	10	4750	0.16	600	±0.3nH
ASCH001608084N7□00	4.7	100 MHz,200 mV	10	4750	0.16	600	±0.3nH
ASCH001608085N1□00	5.1	100 MHz,200 mV	10	4100	0.18	600	±0.3nH
ASCH001608085N6□00	5.6	100 MHz,200 mV	10	4100	0.18	600	±0.3nH
ASCH001608086N2□00	6.2	100 MHz,200 mV	10	3750	0.22	600	±0.3nH
ASCH001608086N8□00	6.8	100 MHz,200 mV	10	3750	0.22	600	5
ASCH001608087N5□00	7.5	100 MHz,200 mV	10	3300	0.24	600	5
ASCH001608088N2□00	8.2	100 MHz,200 mV	10	3300	0.24	600	5
ASCH0016080810N□00	10	100 MHz,200 mV	12	3000	0.26	600	5
ASCH0016080812N□00	12	100 MHz,200 mV	12	2600	0.28	600	5
ASCH0016080815N□00	15	100 MHz,200 mV	12	2500	0.32	600	5
ASCH0016080816N□00	16	100 MHz,200 mV	12	2400	0.35	600	5
ASCH0016080818N□00	18	100 MHz,200 mV	12	2400	0.35	600	5
ASCH0016080822N□00	22	100 MHz,200 mV	12	2000	0.40	500	5
ASCH0016080827N□00	27	100 MHz,200 mV	12	1900	0.45	500	5
ASCH0016080833N□00	33	100 MHz,200 mV	12	1600	0.55	400	5
ASCH0016080839N□00	39	100 MHz,200 mV	12	1400	0.60	400	5
ASCH0016080847N□00	47	100 MHz,200 mV	12	1300	0.70	400	5
ASCH0016080856N□00	56	100 MHz,200 mV	12	1100	0.75	400	5
ASCH0016080862N□00	62	100 MHz,200 mV	12	1050	0.85	400	5
ASCH0016080868N□00	68	100 MHz,200 mV	12	1050	0.85	400	5
ASCH0016080875N□00	75	100 MHz,200 mV	12	900	1.00	300	5
ASCH0016080882N□00	82	100 MHz,200 mV	12	900	1.00	300	5

**Note: When ordering, please specify tolerance code. Tolerance: S=±0.3nH / J=±5%**

1. Operating temperature range - 40°C ~ 125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Residual impedance of short chip : 0nH
4. Measure Equipment:

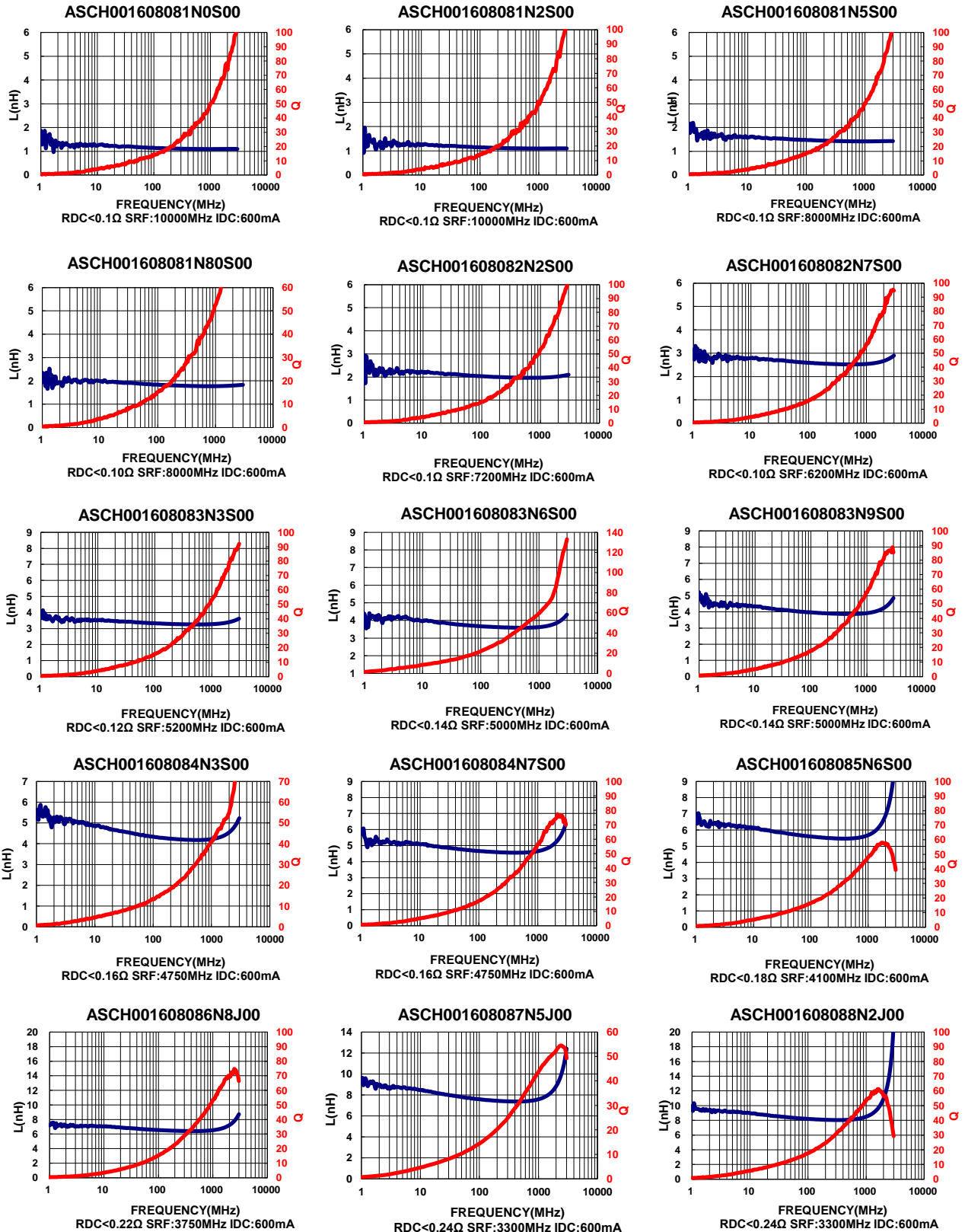
L & Q: Agilent E4991A+Agilent 16197A

SRF: Agilent E4991A or HP19196C

RDC: HP4338B or CHEN HWA 502

ASCH00160808 Type

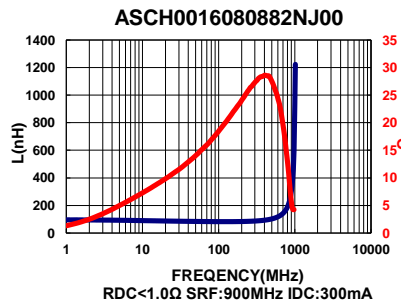
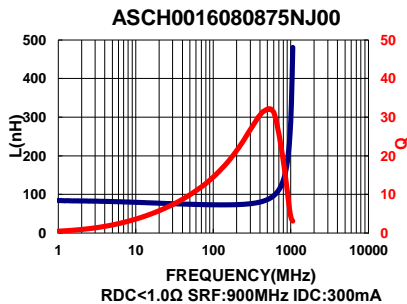
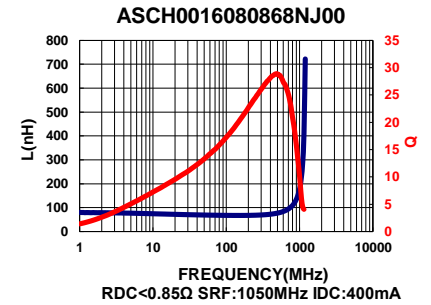
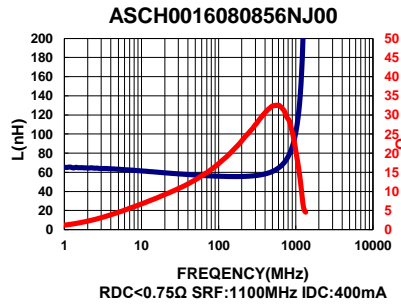
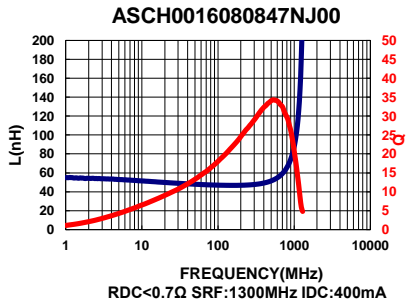
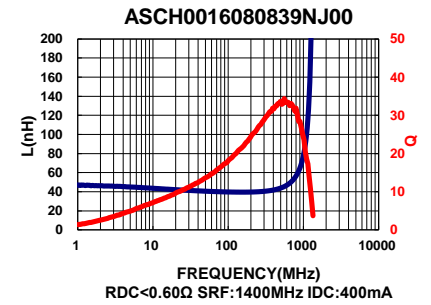
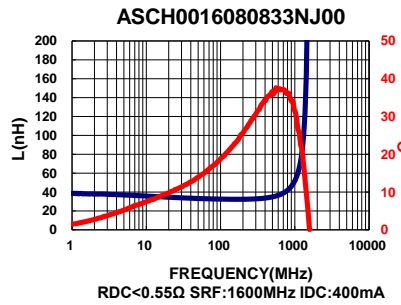
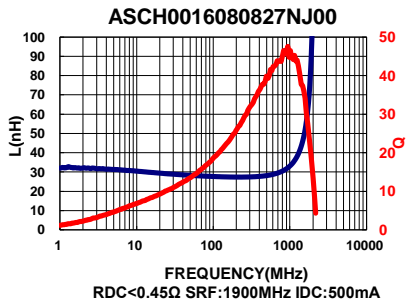
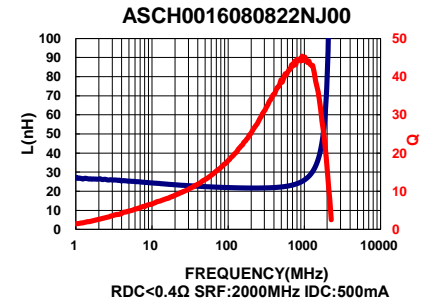
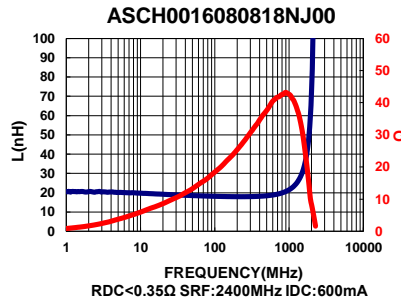
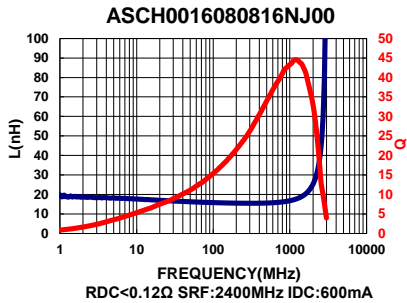
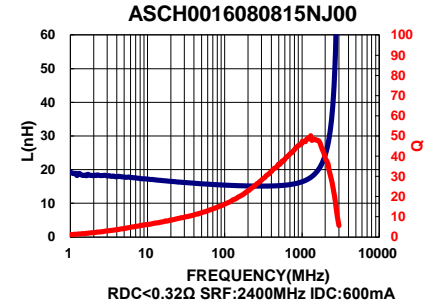
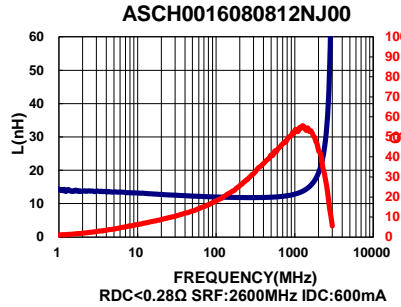
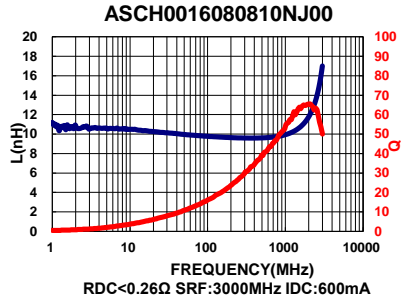
Characteristics Graph





ASCH00160808 Type

Characteristics Graph

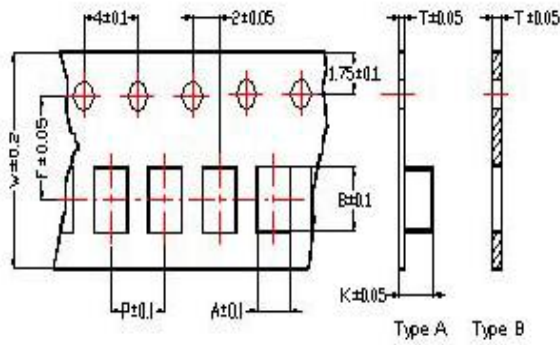


Chip Inductor ASCH Series

Automotive  
AEC-Q200

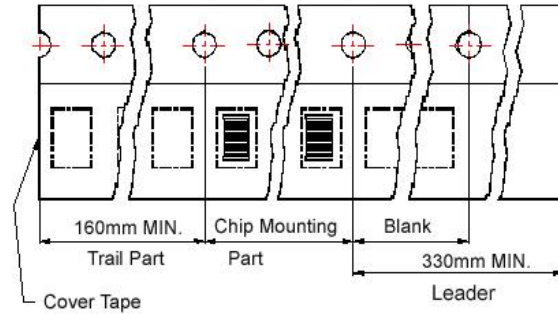
■ Packaging

Tape Dimensions

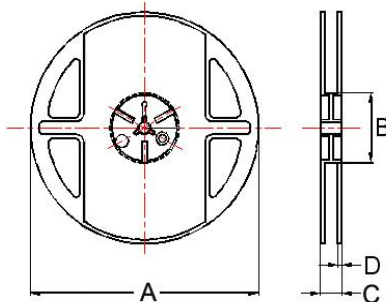


Tape Material

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	Tape	A	B	C	D	
ASCH00100505	0.62	1.12	0.60	8	2	3.5	B	178	60	12	1.5	10000
ASCH00160808	1.00	1.80	0.95	8	4	3.5	B	178	60	12	1.5	4000



Chip Inductor AWCM Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



- RF  
Circuit
- Unshield
- Wire  
Wound
- Ceramic
- High  
Q

■ Part Numbering

A	WCM	00	161008	10N	J	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			110605 1.05x0.6x0.54	2N2 2.2	B ±0.1nH	
			161008 1.6x1.02x0.82	10N 10	C ±0.2nH	
				R10 100	D ±0.5nH	
					G ±2%	
					H ±3%	
					J ±5%	

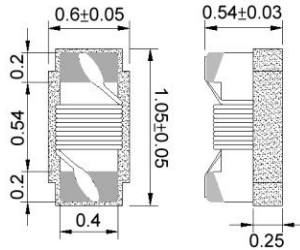
This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Inductor AWCN Series

Automotive  
AEC-Q200

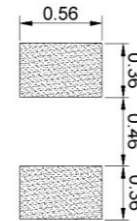
AWCM00110605 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC ( $\Omega$ )Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM001106051N5□00	1.5	100/250		10	18000	0.03	1000	$\pm 0.1nH, \pm 0.2nH, \pm 0.5nH$
AWCM001106052N4□00	2.4	100/250		20	15000	0.05	850	$\pm 0.1nH, \pm 0.2nH, \pm 0.5nH$
AWCM001106052N5□00	2.5	100/250		20	15000	0.05	850	$\pm 0.1nH, \pm 0.2nH, \pm 0.5nH$
AWCM001106052N7□00	2.7	100/250		20	15000	0.05	850	$\pm 0.1nH, \pm 0.2nH, \pm 0.5nH$
AWCM001106052N9□00	2.9	100/250		20	15000	0.07	750	$\pm 0.1nH, \pm 0.2nH, \pm 0.5nH$
AWCM001106053N9□00	3.9	100/250		25	10000	0.07	750	3,5
AWCM001106054N1□00	4.1	100/250		25	10000	0.07	750	3,5
AWCM001106054N3□00	4.3	100/250		25	10000	0.07	750	3,5
AWCM001106054N7□00	4.7	100/250		25	8000	0.07	750	3,5
AWCM001106055N1□00	5.1	100/250		25typ.	8000	0.12	600	3,5
AWCM001106055N8□00	5.8	100/250		25	8000	0.12	700	3,5
AWCM001106056N2□00	6.2	100/250		25	8000	0.09	700	3,5
AWCM001106056N8□00	6.8	100/250		25	6000	0.09	700	3,5
AWCM001106057N3□00	7.3	100/250		25	6000	0.13	570	3,5
AWCM001106057N5□00	7.5	100/250		25	6000	0.13	570	3,5
AWCM001106058N2□00	8.2	100/250		25	5500	0.14	540	3,5
AWCM001106058N7□00	8.7	100/250		25	5500	0.14	540	3,5
AWCM001106059N1□00	9.1	100/250		25	5500	0.14	540	3,5
AWCM001106059N5□00	10	100/250		25	5500	0.14	540	3,5
AWCM0011060510N□00	10	100/250		25	5500	0.17	500	2,3,5
AWCM0011060511N□00	11	100/250		30	5500	0.14	500	2,3,5
AWCM0011060512N□00	12	100/250		30	5500	0.14	500	2,3,5
AWCM0011060513N□00	13	100/250		25	5000	0.21	430	2,3,5
AWCM0011060515N□00	15	100/250		30	5000	0.16	460	2,3,5
AWCM0011060516N□00	16	100/250		25	4500	0.24	370	2,3,5
AWCM0011060518N□00	18	100/250		25	4500	0.27	370	2,3,5
AWCM0011060519N□00	19	100/250		25	4500	0.27	370	2,3,5
AWCM0011060520N□00	20	100/250		25	4000	0.27	370	2,3,5
AWCM0011060522N□00	22	100/250		25	4000	0.3	310	2,3,5
AWCM0011060523N□00	23	100/250		25	3800	0.3	310	2,3,5
AWCM0011060524N□00	24	100/250		25	3500	0.52	280	2,3,5
AWCM0011060527N□00	27	100/250		25	3500	0.52	280	2,3,5

Note: When ordering, please specify tolerance code. Tolerance: B= $\pm 0.1$  / C= $\pm 0.2$  / D= $\pm 0.5$  / G= $\pm 2\%$  / H= $\pm 3\%$  / J= $\pm 5\%$

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

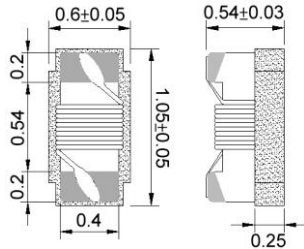
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent HP8722ES  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

Chip Inductor AWCM Series

Automotive  
AEC-Q200

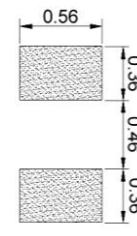
AWCM00110605 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC ( $\Omega$ )Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM0011060530N□00	30	100/250		25	3300	0.58	270	2,3,5
AWCM0011060533N□00	33	100/250		25	3200	0.63	260	2,3,5
AWCM0011060536N□00	36	100/250		25	3100	0.63	260	2,3,5
AWCM0011060539N□00	39	100/250		25	3000	0.7	250	2,3,5
AWCM0011060540N□00	40	100/250		25	3000	0.7	250	2,3,5
AWCM0011060547N□00	47	100/200		25	2900	1.08	210	2,3,5
AWCM0011060551N□00	51	100/200		25	2850	1.08	210	2,3,5
AWCM0011060556N□00	56	100/200		25	2800	1.17	200	2,3,5
AWCM0011060562N□00	62	100/200		20	2600	1.82	145	2,3,5
AWCM0011060568N□00	68	100/200		20	2500	1.96	140	2,3,5
AWCM0011060572N□00	72	100/150		20	2500	2.1	135	2,5
AWCM0011060575N□00	75	100/150		20	2400	2.1	135	2,5
AWCM0011060582N□00	82	100/150		20	2300	2.24	130	2,5
AWCM0011060591N□00	91	100/150		20	2100	2.38	125	2,5
AWCM00110605R10□00	100	100/150		20	1500	2.52	120	2,5
AWCM00110605R12□00	120	100/150		20	1000	2.66	110	2,5

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / C=±0.2 / D=±0.5 / G=±2% / H=±3% / J=±5%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.

3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent HP8722ES

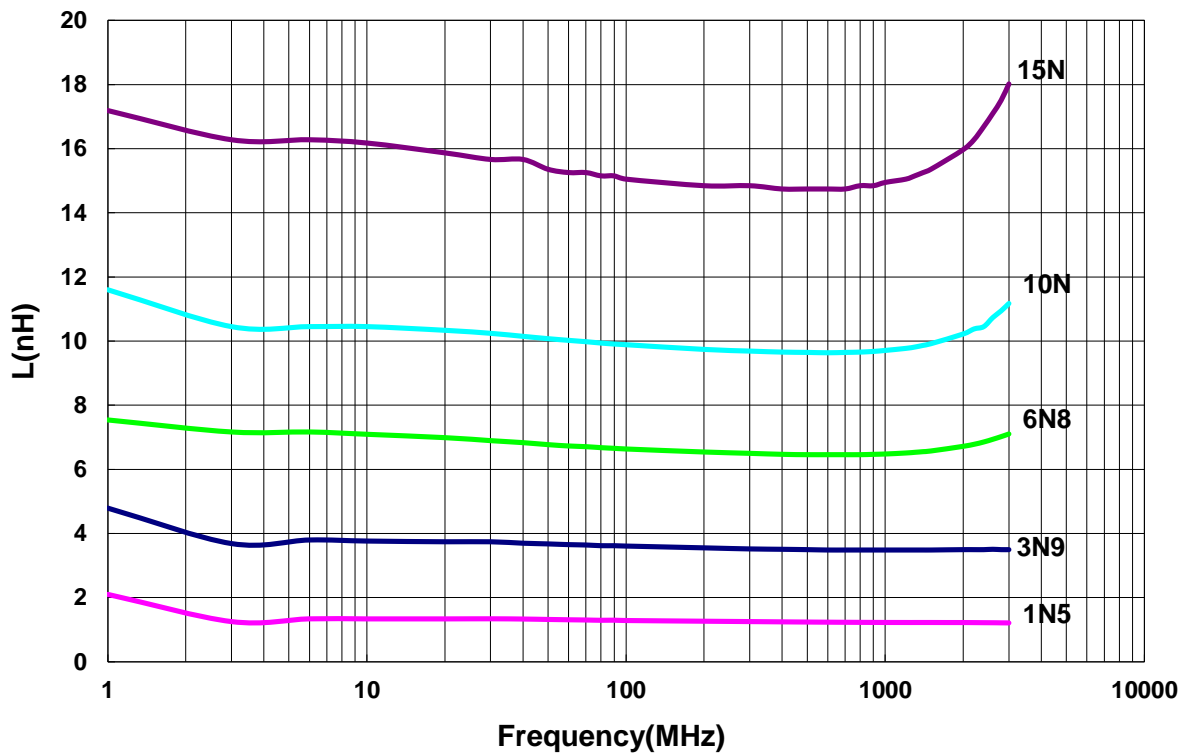
RDC: Chroma 16502

I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

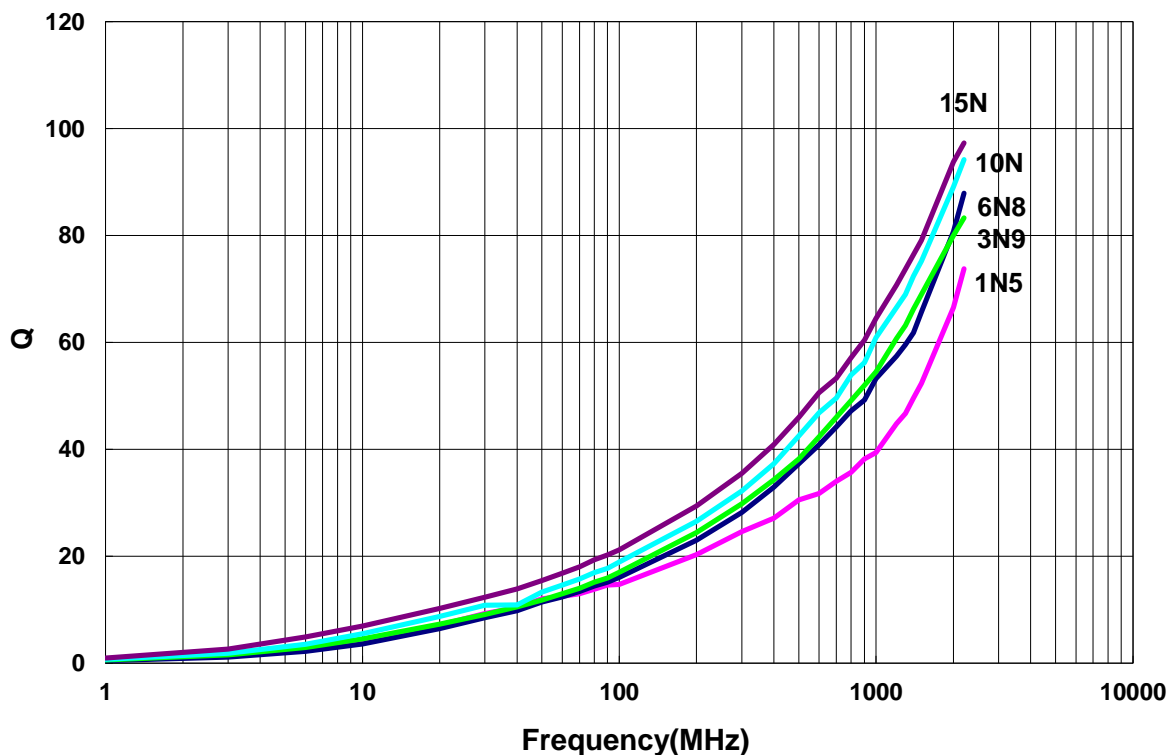
AWCM00110605 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

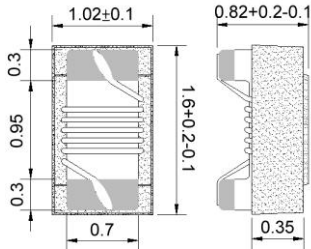


Chip Inductor AWCN Series

Automotive  
AEC-Q200

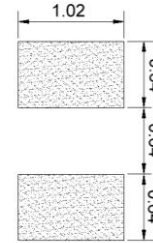
AWCM00161008 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM001610082N2□00	2.2	100/250	16	6000	0.049	700	±0.1nH,±0.2nH,±0.5nH	
AWCM001610083N6□00	3.6	100/250	25	6000	0.059	850	3,5	
AWCM001610083N9□00	3.9	100/250	35	6000	0.059	850	3,5	
AWCM001610084N3□00	4.3	100/250	35	6000	0.059	850	3,5	
AWCM001610084N7□00	4.7	100/250	35	6000	0.059	850	3,5	
AWCM001610085N6□00	5.6	100/250	35	6000	0.082	750	3,5	
AWCM001610086N2□00	6.2	100/250	35	6000	0.082	750	3,5	
AWCM001610086N8□00	6.8	100/250	35	6000	0.082	750	3,5	
AWCM001610087N5□00	7.5	100/250	35	6000	0.082	750	3,5	
AWCM001610088N2□00	8.2	100/250	35	6000	0.11	650	3,5	
AWCM001610088N7□00	8.7	100/250	35	6000	0.11	650	3,5	
AWCM001610089N1□00	9.1	100/250	35	6000	0.11	650	3,5	
AWCM001610089N5□00	9.5	100/250	35	6000	0.11	650	3,5	
AWCM0016100810N□00	10	100/250	35	6000	0.11	650	2,5	
AWCM0016100811N□00	11	100/250	35	6000	0.11	650	2,5	
AWCM0016100812N□00	12	100/250	35	6000	0.13	600	2,5	
AWCM0016100813N□00	13	100/250	35	6000	0.13	600	2,5	
AWCM0016100815N□00	15	100/250	40	6000	0.13	600	2,5	
AWCM0016100816N□00	16	100/250	40	5500	0.16	550	2,5	
AWCM0016100818N□00	18	100/250	40	5500	0.16	550	2,5	
AWCM0016100820N□00	20	100/250	40	4900	0.16	550	2,5	
AWCM0016100822N□00	22	100/250	40	4600	0.17	500	2,5	
AWCM0016100824N□00	24	100/250	40	3800	0.21	500	2,5	
AWCM0016100827N□00	27	100/250	40	3700	0.21	440	2,5	
AWCM0016100830N□00	30	100/250	40	3300	0.23	420	2,5	
AWCM0016100833N□00	33	100/250	40	3200	0.23	420	2,5	
AWCM0016100836N□00	36	100/250	40	2900	0.26	400	2,5	
AWCM0016100839N□00	39	100/250	40	2800	0.26	400	2,5	
AWCM0016100843N□00	43	100/200	40	2700	0.29	380	2,5	
AWCM0016100847N□00	47	100/200	38	2600	0.29	380	2,5	
AWCM0016100851N□00	51	100/200	38	2500	0.33	370	2,5	
AWCM0016100856N□00	56	100/200	38	2400	0.35	360	2,5	

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / C=±0.2 / D=±0.5 / G=±2% / H=±3% / J=±5%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

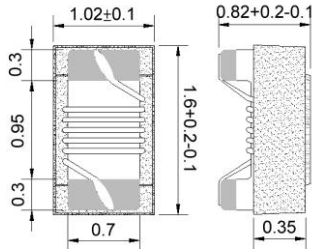
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent HP8722ES  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

## Chip Inductor AWCN Series

Automotive  
AEC-Q200

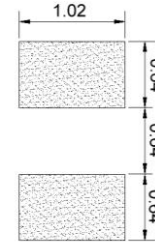
### AWCM00161008 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test Freq. (MHz)	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
AWCM0016100862N□00	62	100/200	38	2300	0.51	280	2,5
AWCM0016100868N□00	68	100/200	38	2200	0.38	340	2,5
AWCM0016100872N□00	72	100/150	34	2100	0.56	270	2,5
AWCM0016100875N□00	75	100/150	34	2050	0.56	270	2,5
AWCM0016100882N□00	82	100/150	34	2000	0.6	250	2,5
AWCM0016100891N□00	91	100/150	34	1900	0.64	230	2,5
AWCM00161008R10□00	100	100/150	34	1800	0.68	220	2,5
AWCM00161008R11□00	110	100/150	32	1700	1.2	200	2,5
AWCM00161008R12□00	120	100/150	32	1600	1.3	180	2,5
AWCM00161008R13□00	130	100/150	32	1450	1.4	170	2,5
AWCM00161008R15□00	150	100/150	32	1400	1.5	160	2,5
AWCM00161008R16□00	160	100/150	32	1350	2.1	150	2,5
AWCM00161008R18□00	180	100/100	25	1300	2.2	140	2,5
AWCM00161008R20□00	200	100/100	25	1250	2.4	120	2,5
AWCM00161008R22□00	220	100/100	25	1200	2.5	120	2,5
AWCM00161008R27□00	270	100/100	30	960	3.4	110	2,5
AWCM00161008R33□00	330	100/100	30	800	5.5	85	2,5
AWCM00161008R39□00	390	100/100	30	800	6.2	80	2,5
AWCM00161008R47□00	470	100/100	30	700	7	75	2,5

**Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / C=±0.2 / D=±0.5 / G=±2% / H=±3% / J=±5%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.

3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent HP8722ES

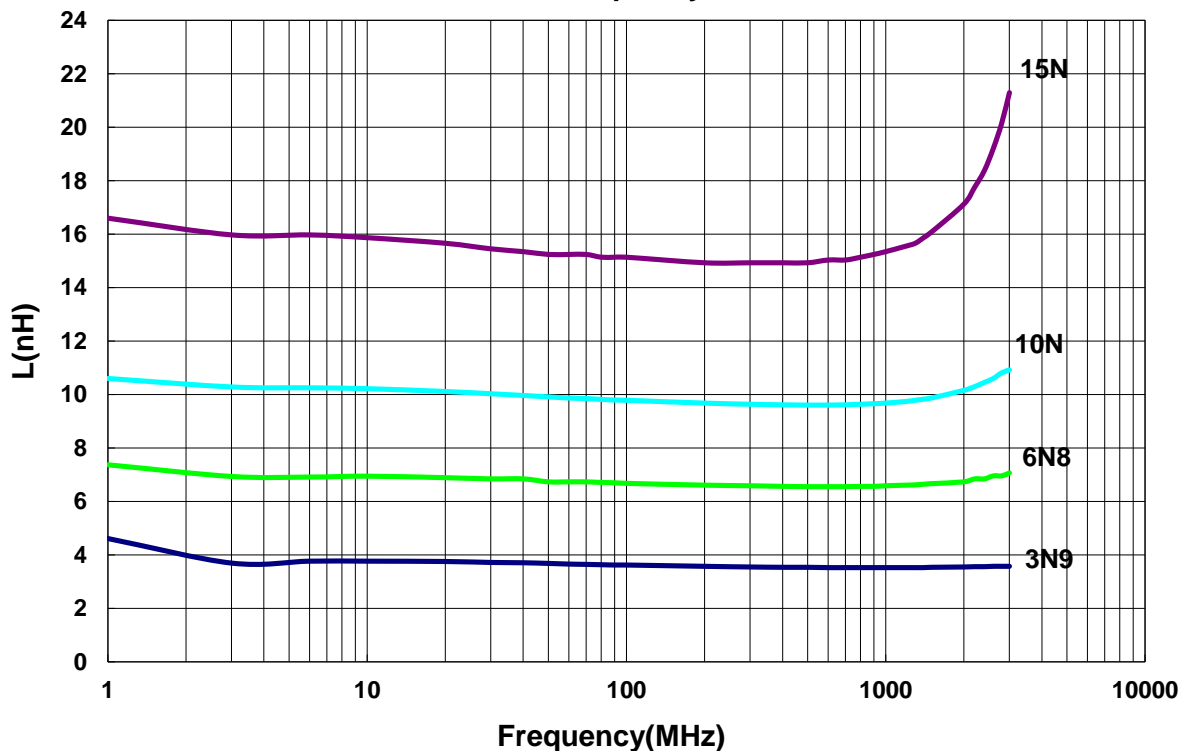
RDC:Chroma 16502

I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

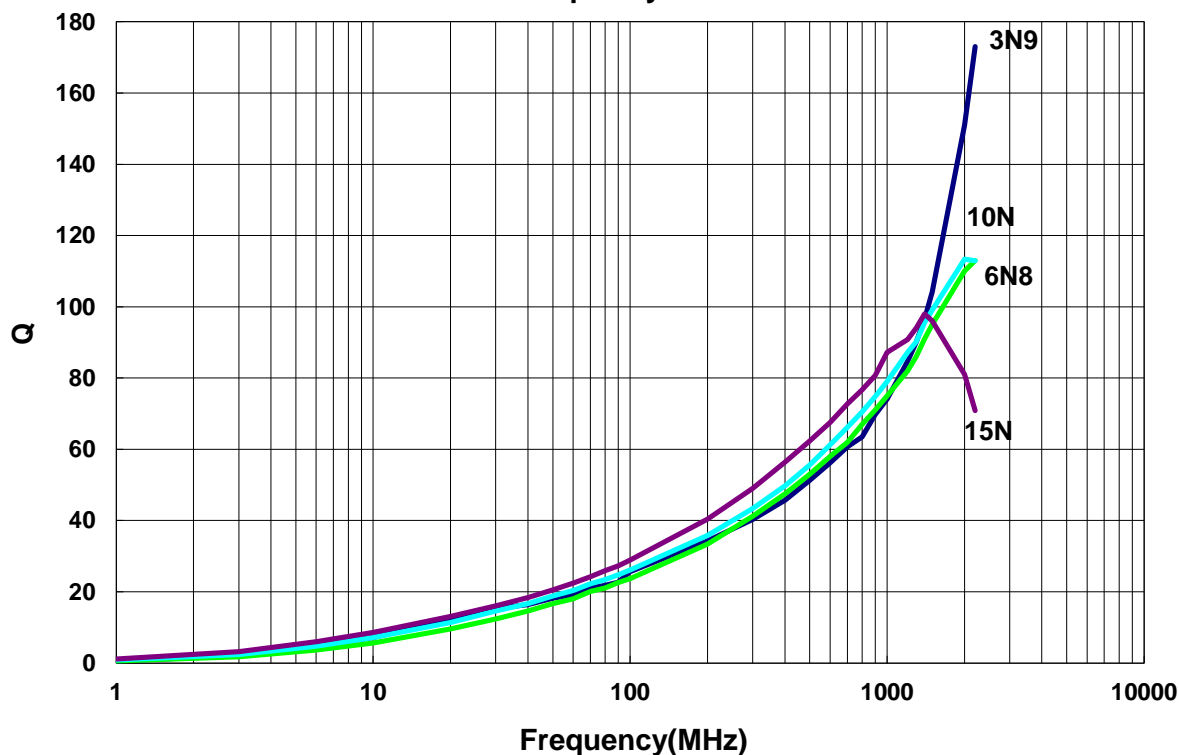
AWCM00161008 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



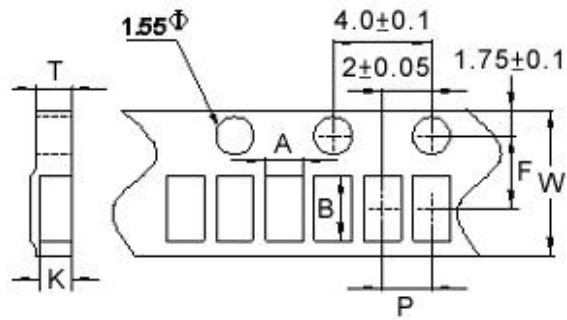
Chip Inductor AWCM Series

Automotive  
AEC-Q200

■ Packaging

Tape Dimensions

Figure 1



Tape Material

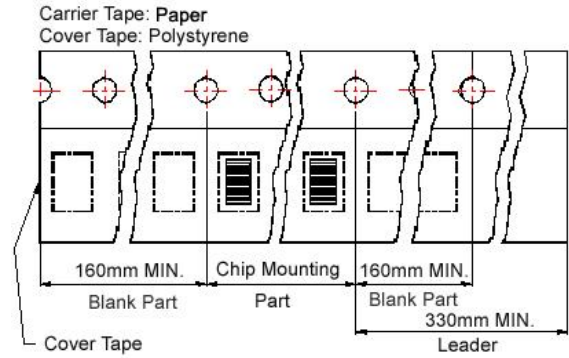
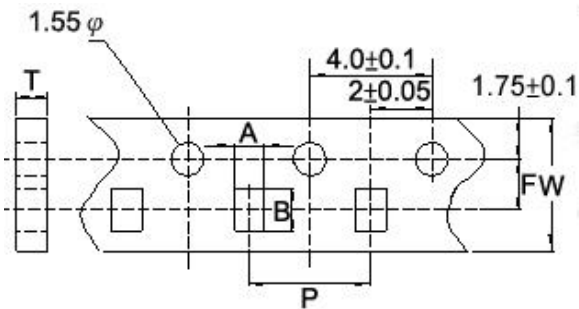
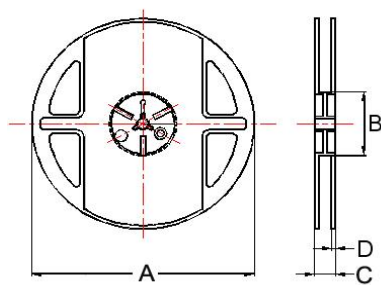


Figure 2



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
		A	B	T	W	P	F	K	A	B	C	D	
AWCM00110605	1	0.67	1.2	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
AWCM00161008	2	1.20	1.8	1.05	8	4	3.5	-	178	60	12	1.5	4000



**Chip Inductor AWCS Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- RF  
Circuit
- Unshield
- Wire  
Wound
- Ceramic
- High  
Q

**Part Numbering**

A	WCS	00	161008	1R0	K	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			120707 1.19x0.7x0.66	3N0 3	G ±2%	
			161008 1.6x1.02x0.82	10N 10	H ±3%	
			231715 2.35x1.73x1.52	R10 100	J ±5%	
			292821 2.92x2.79x2.1	1R0 1000	K ±10%	
			372822 3.7x2.8x2.2			

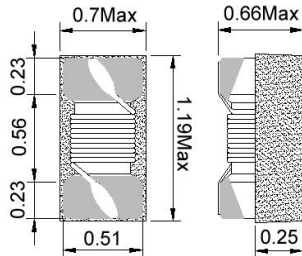
This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Inductor AWCS Series

Automotive  
AEC-Q200

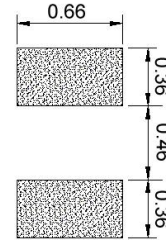
AWCS00120707 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS001207071N0□00	1	250/250		16	12700	0.045	1360	10,5,±0.1nH
AWCS001207071N2□00	1.2	250/250		10	10400	0.14	640	10,5,±0.1nH
AWCS001207071N3□00	1.3	250/250		10	10400	0.14	640	10,±0.1nH
AWCS001207071N9□00	1.9	250/250		16	11300	0.07	1040	10,5,±0.1nH
AWCS001207072N0□00	2	250/250		16	11100	0.07	1040	10,5,±0.1nH
AWCS001207072N2□00	2.2	250/250		19	10800	0.07	960	10,5,±0.1nH
AWCS001207072N4□00	2.4	250/250		15	10500	0.068	790	10,5,±0.1nH
AWCS001207072N5□00	2.5	250/250		13	10400	0.15	640	10,5,±0.1nH
AWCS001207072N7□00	2.7	250/250		16	10400	0.12	640	10,5,±0.1nH
AWCS001207073N3□00	3.3	250/250		19	7000	0.066	840	10,5,3
AWCS001207073N6□00	3.6	250/250		19	6800	0.066	840	10,5,3
AWCS001207073N9□00	3.9	250/250		19	6000	0.066	840	10,5,3
AWCS001207074N3□00	4.3	250/250		18	6000	0.091	700	10,5,3
AWCS001207074N7□00	4.7	250/250		15	4770	0.13	640	10,5,3
AWCS001207075N1□00	5.1	250/250		20	4800	0.083	800	10,5,3
AWCS001207075N6□00	5.6	250/250		20	4800	0.083	760	10,5,3
AWCS001207075N8□00	5.8	250/250		20	4800	0.083	760	10,5,3
AWCS001207076N2□00	6.2	250/250		20	4800	0.083	760	10,5,3
AWCS001207076N8□00	6.8	250/250		20	4800	0.083	680	10,5,3
AWCS001207077N3□00	7.3	250/250		20	4800	0.12	680	10,5,3
AWCS001207077N5□00	7.5	250/250		22	4800	0.1	680	10,5,3
AWCS001207078N2□00	8.2	250/250		22	4400	0.1	680	10,5,3
AWCS001207078N7□00	8.7	250/250		18	4100	0.2	480	10,5,3
AWCS001207079N0□00	9	250/250		22	4160	0.1	680	10,5,3
AWCS001207079N1□00	9.1	250/250		22	4160	0.1	680	10,5,3
AWCS001207079N5□00	9.5	250/250		18	4000	0.2	480	10,5,3
AWCS0012070710N□00	10	250/250		21	3900	0.2	480	10,5,3,2
AWCS0012070711N□00	11	250/250		24	3680	0.12	640	10,5,3,2
AWCS0012070712N□00	12	250/250		24	3600	0.12	640	10,5,3,2
AWCS0012070713N□00	13	250/250		24	3450	0.21	440	10,5,3,2
AWCS0012070715N□00	15	250/250		24	3280	0.17	560	10,5,3,2
AWCS0012070716N□00	16	250/250		24	3100	0.22	560	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

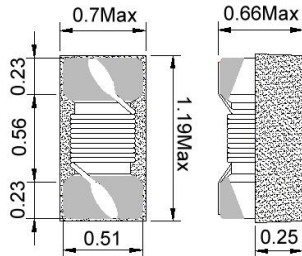
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: HP4287A  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

Chip Inductor AWCS Series

Automotive  
AEC-Q200

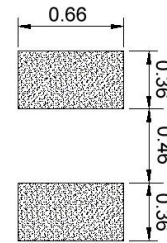
AWCS00161008 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS0012070718N□00	18	250/250		25	3100	0.23	420	10,5,3,2
AWCS0012070719N□00	19	250/250		24	3040	0.2	480	10,5,3,2
AWCS0012070720N□00	20	250/250		25	3000	0.25	420	10,5,3,2
AWCS0012070722N□00	22	250/250		25	2800	0.3	400	10,5,3,2
AWCS0012070723N□00	23	250/250		22	2720	0.3	400	10,5,3,2
AWCS0012070724N□00	24	250/250		25	2700	0.3	400	10,5,3,2
AWCS0012070727N□00	27	250/250		24	2480	0.3	400	10,5,3,2
AWCS0012070730N□00	30	250/250		25	2350	0.35	400	10,5,3,2
AWCS0012070733N□00	33	250/250		24	2350	0.4	400	10,5,3,2
AWCS0012070736N□00	36	250/250		24	2320	0.44	320	10,5,3,2
AWCS0012070739N□00	39	250/250		25	2100	0.55	200	10,5,3,2
AWCS0012070740N□00	40	250/250		24	2240	0.65	320	10,5,3,2
AWCS0012070743N□00	43	250/250		25	2030	0.81	100	10,5,3,2
AWCS0012070747N□00	47	250/250		20	2100	0.83	150	10,5,3,2
AWCS0012070751N□00	51	250/250		25	1750	0.82	100	10,5,3,2
AWCS0012070756N□00	56	250/250		22	1760	0.97	100	10,5,3,2
AWCS0012070768N□00	68	250/250		22	1620	1.12	100	10,5,3,2
AWCS0012070772N□00	72	250/250		20	1260	2	30	10,5,3,2
AWCS0012070782N□00	82	250/250		20	1260	1.55	50	10,5,3,2
AWCS00120707R10□00	100	250/250		20	1160	2	30	10,5,3,2
AWCS00120707R18□00	180	100/100		8	700	2.7	50	10,5,3,2
AWCS00120707R22□00	220	100/100		8	700	4	50	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

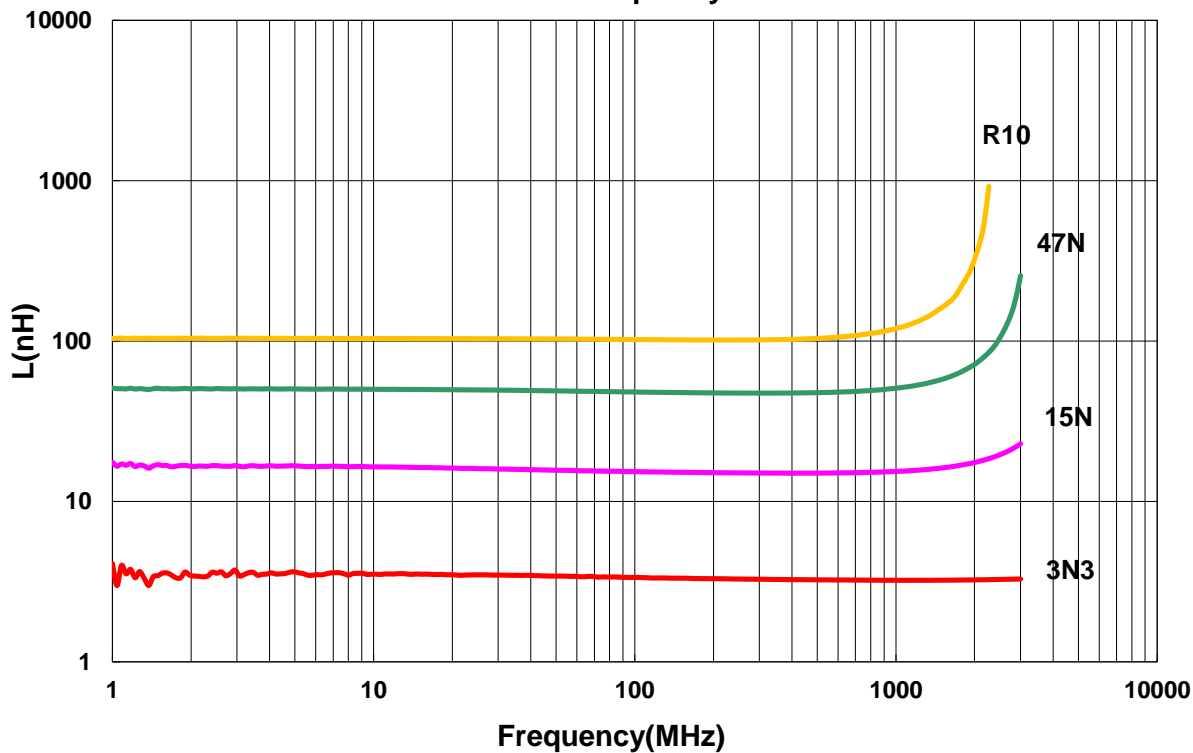
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: HP4287A  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

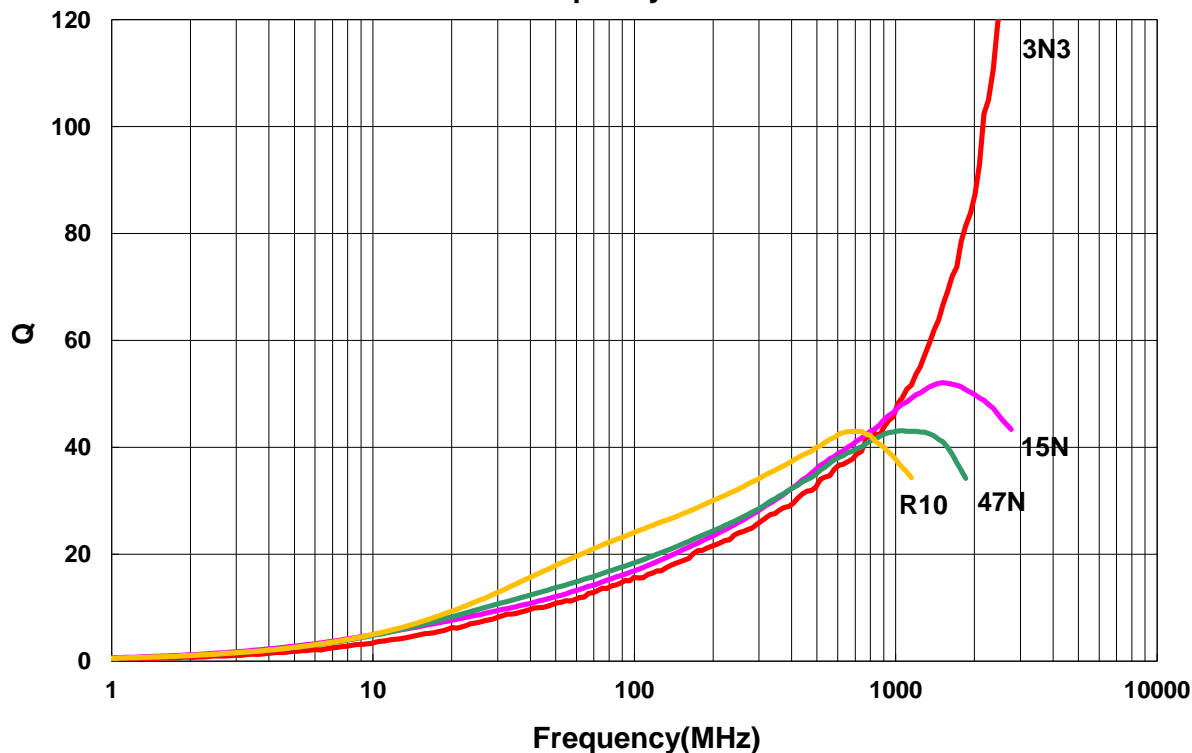
AWCS00120707 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

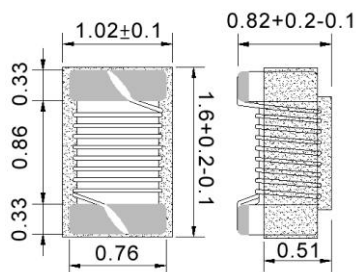


## Chip Inductor AWCS Series

Automotive  
AEC-Q200

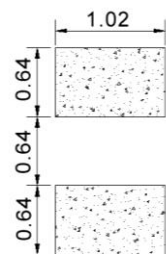
### AWCS00161008 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS001610081N6□00	1.6	250/250		24	12500	0.03	700	10,5,±0.1nH
AWCS001610081N8□00	1.8	250/250		16	12500	0.045	700	10,5,±0.1nH
AWCS001610082N2□00	2.2	250/250		13	12500	0.25	700	10,5,±0.1nH
AWCS001610083N3□00	3.3	250/250		35	5900	0.045	700	10,5,3
AWCS001610083N6□00	3.6	250/250		22	5900	0.063	700	10,5,3,2
AWCS001610083N9□00	3.9	250/250		22	6900	0.08	700	10,5,3,2
AWCS001610084N3□00	4.3	250/250		22	5900	0.063	700	10,5,3,2
AWCS001610084N7□00	4.7	250/250		20	5800	0.116	700	10,5,3,2
AWCS001610085N1□00	5.1	250/250		20	5700	0.14	700	10,5,3,2
AWCS001610085N6□00	5.6	250/250		20	5800	0.17	700	10,5,3,2
AWCS001610086N3□00	6.3	250/250		20	5700	0.14	700	10,5,3,2
AWCS001610086N8□00	6.8	250/250		27	5800	0.11	700	10,5,3,2
AWCS001610087N5□00	7.5	250/250		28	4800	0.106	700	10,5,3,2
AWCS001610088N2□00	8.2	250/250		28	4700	0.109	700	10,5,3,2
AWCS001610088N7□00	8.7	250/250		28	4600	0.109	700	10,5,3,2
AWCS001610089N1□00	9.1	250/250		28	4800	0.12	700	10,5,3,2
AWCS001610089N5□00	9.5	250/250		28	5400	0.135	700	10,5,3,2
AWCS0016100810N□00	10	250/250		31	4800	0.13	700	10,5,3,2
AWCS0016100811N□00	11	250/250		33	4000	0.086	700	10,5,3,2
AWCS0016100812N□00	12	250/250		35	4000	0.13	700	10,5,3,2
AWCS0016100813N□00	13	250/250		30	4000	0.16	700	10,5,3,2
AWCS0016100815N□00	15	250/250		35	4000	0.17	700	10,5,3,2
AWCS0016100816N□00	16	250/250		34	3300	0.104	700	10,5,3,2
AWCS0016100818N□00	18	250/250		35	3100	0.17	700	10,5,3,2
AWCS0016100820N□00	20	250/250		38	3000	0.19	700	10,5,3,2
AWCS0016100822N□00	22	250/250		38	3000	0.19	700	10,5,3,2
AWCS0016100823N□00	23	250/250		38	2850	0.19	700	10,5,3,2
AWCS0016100824N□00	24	250/250		37	2650	0.135	700	10,5,3,2
AWCS0016100827N□00	27	250/250		40	2800	0.22	600	10,5,3,2
AWCS0016100830N□00	30	250/250		37	2250	0.144	600	10,5,3,2
AWCS0016100833N□00	33	250/250		40	2300	0.22	600	10,5,3,2
AWCS0016100836N□00	36	250/250		38	2080	0.25	600	10,5,3,2

**Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.

3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent E4991A

RDC: Chroma 16502

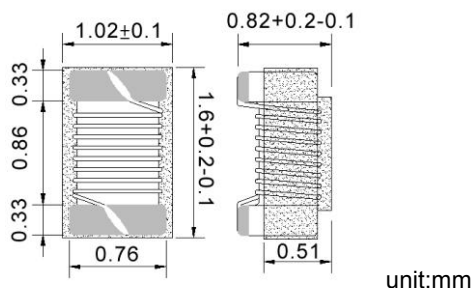
I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

Chip Inductor AWCS Series

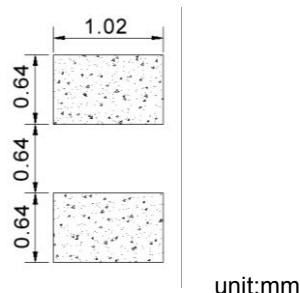
Automotive  
AEC-Q200

AWCS00161008 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS0016100839N□00	39	250/250		40	2200	0.25	600	10,5,3,2
AWCS0016100843N□00	43	250/250		39	2000	0.28	600	10,5,3,2
AWCS0016100847N□00	47	200/200		38	2000	0.28	600	10,5,3,2
AWCS0016100851N□00	51	200/200		38	1900	0.31	600	10,5,3,2
AWCS0016100856N□00	56	200/200		38	1900	0.31	600	10,5,3,2
AWCS0016100868N□00	68	200/200		37	1700	0.34	600	10,5,3,2
AWCS0016100872N□00	72	150/150		34	1700	0.49	400	10,5,3,2
AWCS0016100882N□00	82	150/150		34	1700	0.54	400	10,5,3,2
AWCS0016100891N□00	91	150/150		34	1400	0.58	400	10,5,3,2
AWCS00161008R10□00	100	150/150		34	1400	0.58	400	10,5,3,2
AWCS00161008R11□00	110	150/150		32	1350	0.61	300	10,5,3,2
AWCS00161008R12□00	120	150/150		32	1300	0.75	300	10,5,3,2
AWCS00161008R15□00	150	150/150		28	990	0.92	280	10,5,3,2
AWCS00161008R16□00	160	100/100		25	990	1.25	240	10,5,3,2
AWCS00161008R18□00	180	100/100		25	990	1.25	240	10,5,3,2
AWCS00161008R20□00	200	100/100		25	900	2.1	200	10,5,3,2
AWCS00161008R21□00	210	100/100		27	895	2.06	200	10,5,3,2
AWCS00161008R22□00	220	100/100		25	900	2.1	200	10,5,3,2
AWCS00161008R24□00	240	100/100		25	900	2.2	200	10,5,3,2
AWCS00161008R25□00	250	100/100		25	822	3.55	120	10,5,3,2
AWCS00161008R27□00	270	100/100		24	900	2.8	170	10,5,3,2
AWCS00161008R33□00	330	100/100		25	900	3.89	100	10,5,3,2
AWCS00161008R39□00	390	100/100		25	900	4.35	100	10,5,3,2
AWCS00161008R47□00	470	100/100		25	500	4.5	100	10,5,3,2
AWCS00161008R56□00	560	100/100		23	460	4.7	90	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

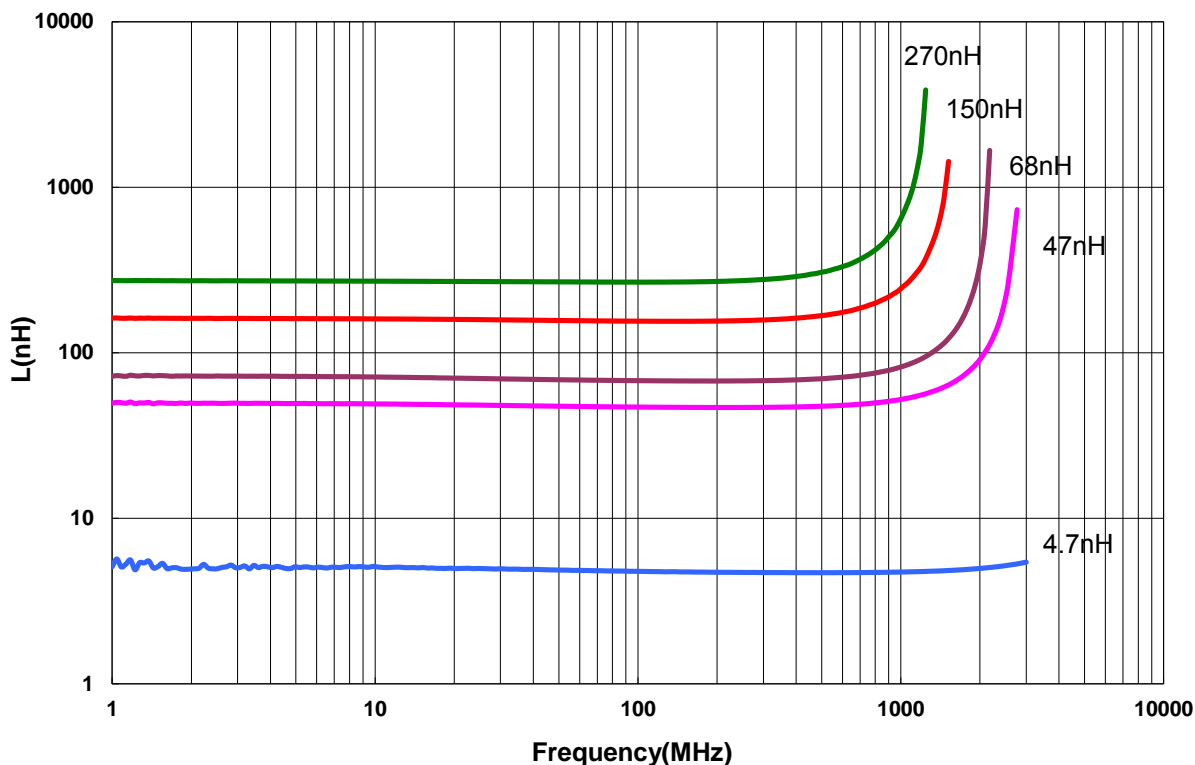
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

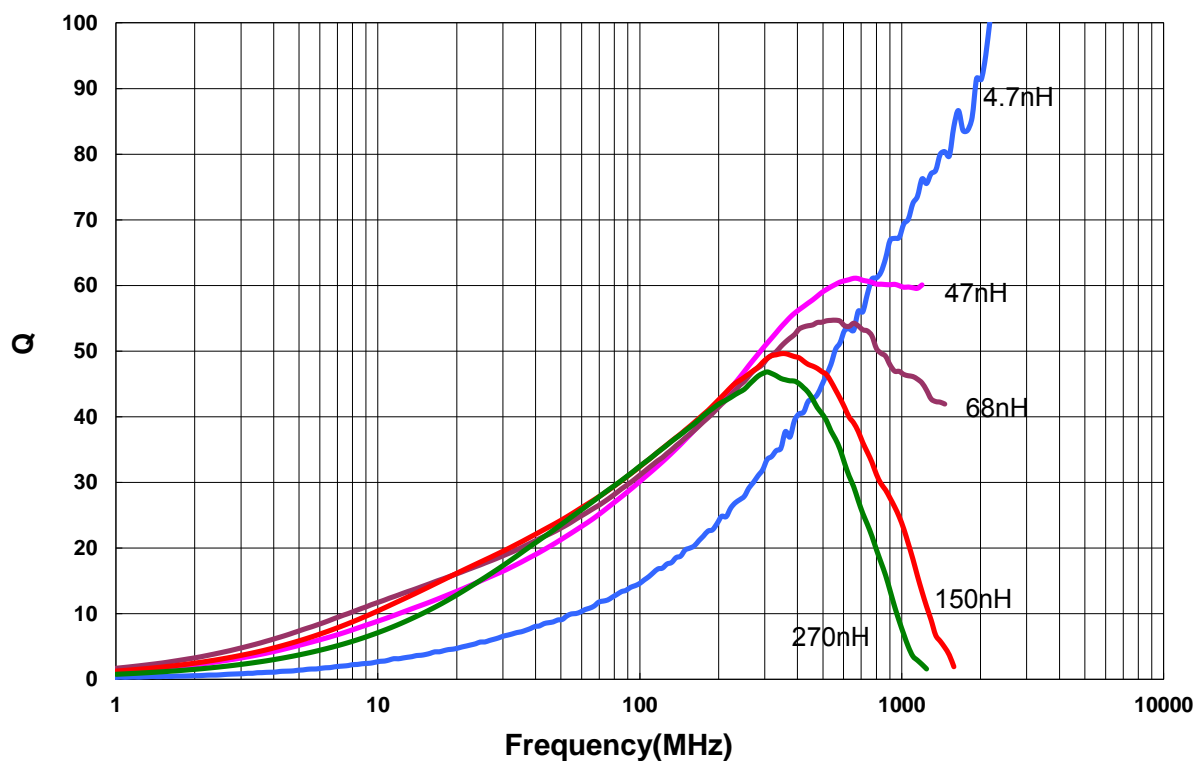
AWCS00161008 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics



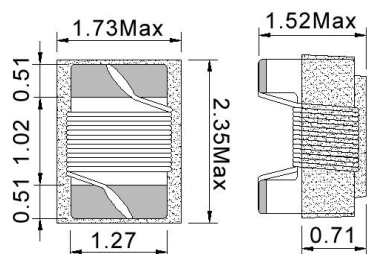


## Chip Inductor AWCS Series

Automotive  
AEC-Q200

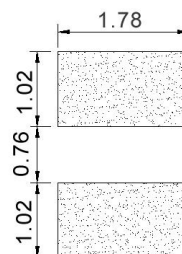
### AWCS00231715 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS002317152N7□00	2.7	250/1500		50	7900	0.06	800	10,5,2
AWCS002317152N8□00	2.8	250/1500		80	7900	0.06	800	10,5,2
AWCS002317153N0□00	3.0	250/1500		65	7900	0.06	800	10,5,2
AWCS002317153N3□00	3.3	250/1500		50	7900	0.08	600	10,5,2
AWCS002317155N6□00	5.6	250/1000		65	5500	0.08	600	10,5,2
AWCS002317156N8□00	6.8	250/1000		50	5500	0.11	600	10,5,2
AWCS002317157N5□00	7.5	250/1000		50	4500	0.14	600	10,5,2
AWCS002317158N2□00	8.2	250/1000		50	4700	0.12	600	10,5,2
AWCS0023171510N□00	10	250/500		60	4200	0.10	600	10,5,2
AWCS0023171512N□00	12	250/500		50	4000	0.15	600	10,5,2
AWCS0023171515N□00	15	250/500		50	3400	0.17	600	10,5,2
AWCS0023171518N□00	18	250/500		50	3300	0.20	600	10,5,2
AWCS0023171522N□00	22	250/500		55	2600	0.22	500	10,5,2
AWCS0023171524N□00	24	250/500		50	2000	0.22	500	10,5,2
AWCS0023171527N□00	27	250/500		55	2500	0.25	500	10,5,2
AWCS0023171533N□00	33	250/500		60	2050	0.27	500	10,5,2
AWCS0023171536N□00	36	250/500		55	1700	0.27	500	10,5,2
AWCS0023171539N□00	39	250/500		60	2000	0.29	500	10,5,2
AWCS0023171543N□00	43	200/500		60	1650	0.34	500	10,5,2
AWCS0023171547N□00	47	200/500		60	1650	0.31	500	10,5,2
AWCS0023171556N□00	56	200/500		60	1550	0.34	500	10,5,2
AWCS0023171568N□00	68	200/500		60	1450	0.38	500	10,5,2
AWCS0023171582N□00	82	150/500		65	1300	0.42	400	10,5,2
AWCS0023171591N□00	91	150/500		65	1200	0.48	400	10,5,2
AWCS00231715R10□00	100	150/500		65	1200	0.46	400	10,5,2
AWCS00231715R11□00	110	150/250		50	1000	0.48	400	10,5,2
AWCS00231715R12□00	120	150/250		50	1100	0.51	400	10,5,2
AWCS00231715R15□00	150	100/250		50	920	0.56	400	10,5,2
AWCS00231715R18□00	180	100/250		50	870	0.64	400	10,5,2
AWCS00231715R20□00	200	100/250		50	860	0.68	400	10,5,2
AWCS00231715R22□00	220	100/250		50	850	0.70	400	10,5,2
AWCS00231715R24□00	240	100/250		44	690	1.00	350	10,5,2

**Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

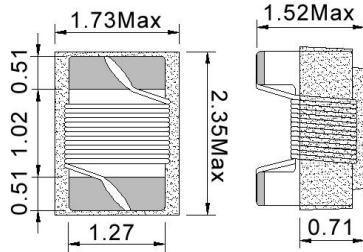


Chip Inductor AWCS Series

Automotive  
AEC-Q200

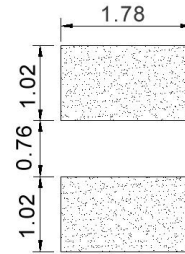
AWCS00231715 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS00231715R25□00	250	100/250	45	660	1.2	350	10,5,2	
AWCS00231715R27□00	270	100/250	48	650	1	350	10,5,2	
AWCS00231715R30□00	300	100/250	25	450	1.4	310	10,5,2	
AWCS00231715R33□00	330	100/250	48	600	1.4	310	10,5,2	
AWCS00231715R39□00	390	100/250	48	560	1.5	290	10,5,2	
AWCS00231715R47□00	470	50/100	33	450	1.76	250	10,5,2	
AWCS00231715R51□00	510	25/50	23	340	1.9	230	10,5,2	
AWCS00231715R56□00	560	25/50	23	340	1.9	230	10,5,2	
AWCS00231715R62□00	620	25/50	23	220	2.2	210	10,5,2	
AWCS00231715R68□00	680	25/50	23	188	2.2	190	10,5,2	
AWCS00231715R30□00	820	25/50	23	215	2.35	180	10,5,2	
AWCS002317151R0□00	1000	25/50	20	100	2.5	170	10,5,2	
AWCS002317151R2□00	1200	7.9/25	18	100	2.5	170	10,5	
AWCS002317151R8□00	1800	7.9/7.9	16	80	2.5	170	10,5,2	
AWCS002317153R3□00	3300	7.9/7.9	15	40	4.4	90	10,5,2	
AWCS002317154R7□00	4700	7.9/7.9	15	40	6.4	90	10,5,2	

Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%

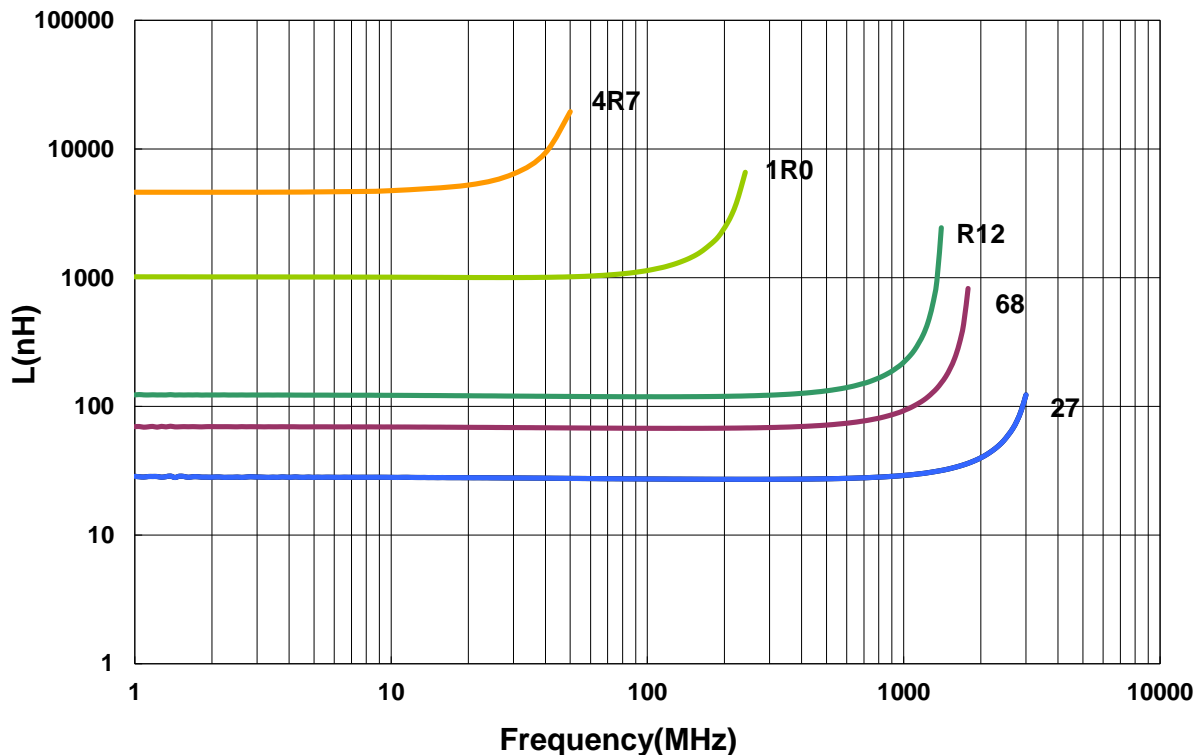
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

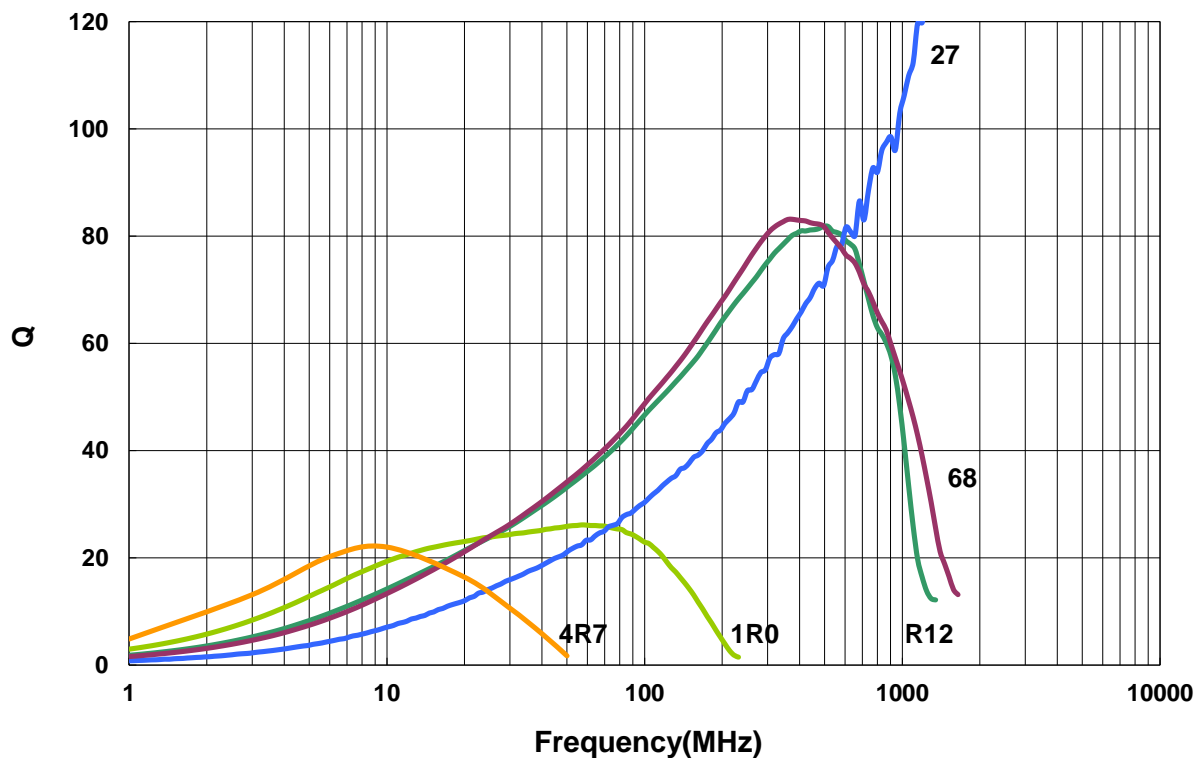
AWCS00231715 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics

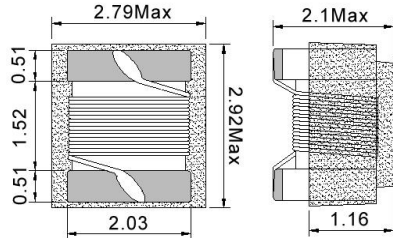


Chip Inductor AWCS Series

Automotive  
AEC-Q200

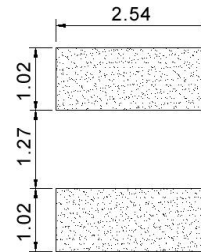
AWCS00292821 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS00292821-10N□00	10	50/500		50	4100	0.08	1000	10,5,2
AWCS00292821-12N□00	12	50/500		50	3300	0.09	1000	10,5,2
AWCS00292821-15N□00	15	50/500		50	2500	0.1	1000	10,5,2
AWCS00292821-18N□00	18	50/350		50	2500	0.11	1000	10,5,2
AWCS00292821-22N□00	22	50/350		55	2400	0.12	1000	10,5,2
AWCS00292821-27N□00	27	50/350		55	1600	0.13	1000	10,5,2
AWCS00292821-33N□00	33	50/350		60	1600	0.14	1000	10,5,2
AWCS00292821-39N□00	39	50/350		60	1500	0.15	1000	10,5,2
AWCS00292821-47N□00	47	50/350		65	1500	0.16	1000	10,5,2
AWCS00292821-56N□00	56	50/350		65	1300	0.18	1000	10,5,2
AWCS00292821-68N□00	68	50/350		65	1300	0.2	1000	10,5,2
AWCS00292821-82N□00	82	50/350		60	1000	0.22	1000	10,5,2
AWCS00292821-R10□00	100	25/350		60	1000	0.56	650	10,5,2
AWCS00292821-R12□00	120	25/350		60	950	0.63	650	10,5,2
AWCS00292821-R15□00	150	25/100		45	850	0.7	580	10,5,2
AWCS00292821-R18□00	180	25/100		45	750	0.77	620	10,5,3,2
AWCS00292821-R20□00	200	25/100		45	700	0.84	500	10,5,2
AWCS00292821-R22□00	220	25/100		45	700	0.84	500	10,5,2
AWCS00292821-R27□00	270	25/100		45	600	0.91	500	10,5,2
AWCS00292821-R33□00	330	25/100		45	570	1.05	450	10,5,2
AWCS00292821-R39□00	390	25/100		45	500	1.12	470	10,5,2
AWCS00292821-R47□00	470	25/100		45	450	1.19	470	10,5,2
AWCS00292821-R56□00	560	25/100		45	415	1.33	400	10,5,2
AWCS00292821-R62□00	620	25/100		45	375	1.4	300	10,5,2
AWCS00292821-R68□00	680	25/100		45	375	1.47	400	10,5,2
AWCS00292821-R75□00	750	25/100		45	360	1.54	360	10,5,2
AWCS00292821-R82□00	820	25/100		45	350	1.61	400	10,5,2
AWCS00292821-R91□00	910	25/50		35	320	1.68	380	10,5,2

Note: When ordering, please specify tolerance code. Tolerance: G=±2% / H=±3% / J=±5% / K=±10%

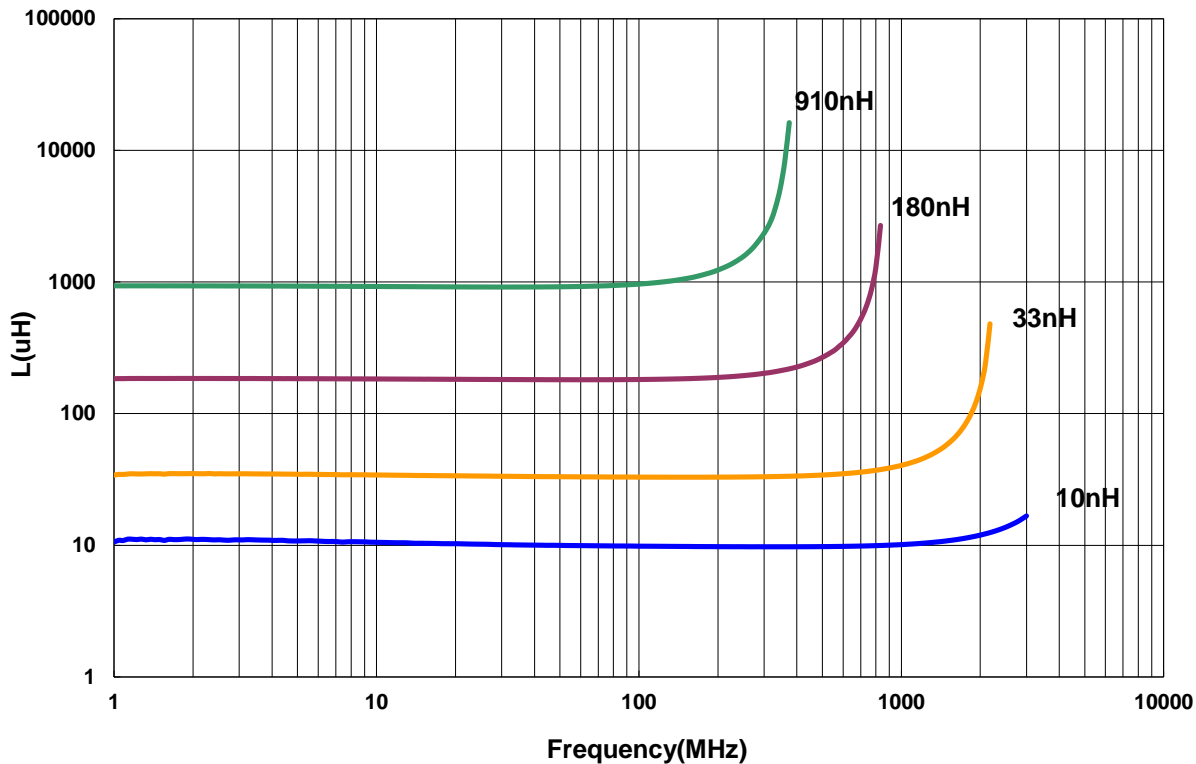
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

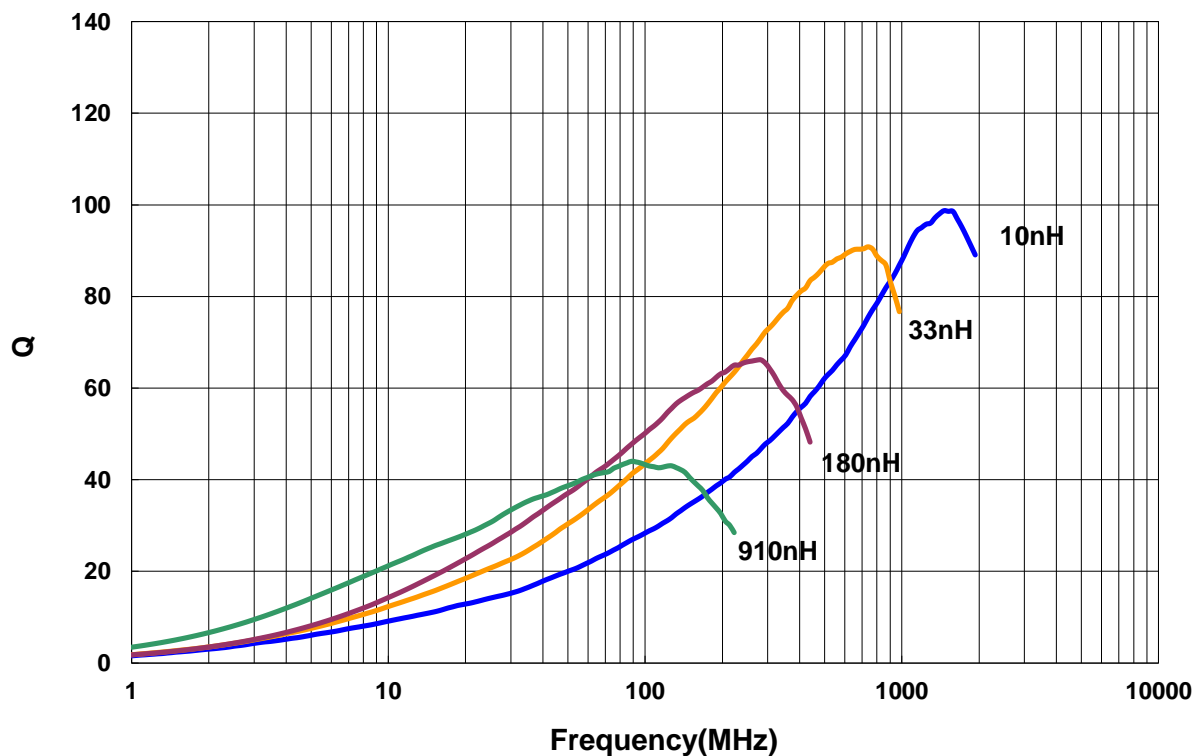
AWCS00292821 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics

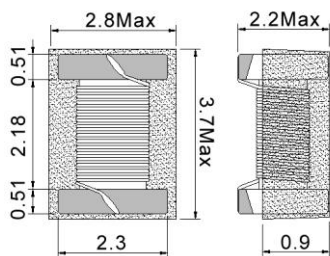


## Chip Inductor AWCS Series

Automotive  
AEC-Q200

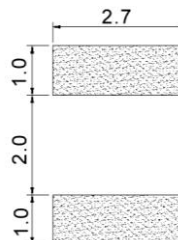
### AWCS00372822 Type

#### Dimensions



unit:mm

#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS003728223N□00	3.3	100/300		30	6200	0.05	1000	10,5
AWCS003728226N8□00	6.8	100/300		30	5500	0.07	1000	10,5
AWCS0037282210N□00	10	100/300		40	4000	0.08	1000	10,5,2
AWCS0037282212N□00	12	100/300		40	3200	0.08	1000	10,5,2
AWCS0037282215N□00	15	100/300		40	3200	0.1	1000	10,5,2
AWCS0037282218N□00	18	100/300		50	2800	0.1	1000	10,5,2
AWCS0037282222N□00	22	100/300		50	2200	0.1	1000	10,5,2
AWCS0037282227N□00	27	100/300		50	1800	0.11	1000	10,5,2
AWCS0037282233N□00	33	100/300		55	1800	0.11	1000	10,5,2
AWCS0037282239N□00	39	100/300		55	1800	0.12	1000	10,5,2
AWCS0037282247N□00	47	100/300		55	1500	0.13	1000	10,5,2
AWCS0037282256N□00	56	100/300		55	1450	0.14	1000	10,5,2
AWCS0037282268N□00	68	100/300		55	1200	0.26	900	10,5,2
AWCS0037282282N□00	82	100/300		55	1200	0.21	900	10,5,2
AWCS00372822R10□00	100	100/300		55	1100	0.26	850	10,5,2
AWCS00372822R12□00	120	100/300		60	1100	0.26	800	10,5,2
AWCS00372822R15□00	150	100/300		60	950	0.31	750	10,5,2
AWCS00372822R18□00	180	50/300		60	900	0.43	700	10,5,2
AWCS00372822R22□00	220	50/300		60	760	0.5	670	10,5,2
AWCS00372822R27□00	270	50/300		55	730	0.56	630	10,5,2
AWCS00372822R33□00	330	50/150		45	650	0.62	590	10,5,2
AWCS00372822R39□00	390	50/150		45	600	0.75	530	10,5,2
AWCS00372822R47□00	470	50/150		45	550	1.3	490	10,5,2
AWCS00372822R56□00	560	35/150		45	470	1.34	460	10,5,2
AWCS00372822R62□00	620	35/150		45	470	1.58	460	10,5,2
AWCS00372822R68□00	680	35/150		45	450	1.58	430	10,5,2
AWCS00372822R75□00	750	35/150		45	440	2.25	320	10,5,2
AWCS00372822R82□00	820	35/150		45	420	1.82	400	10,5,2
AWCS00372822R91□00	910	35/150		45	410	2.95	310	10,5,2
AWCS003728221R0□00	1000	35/150		45	400	2.8	320	10,5,2
AWCS003728221R2□00	1200	35/150		45	380	3.2	300	10,5,2

**Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

L & Q: Agilent E4991A/HP4286A/HP4287A

SRF: Agilent HP8753D/Agilent E4991A

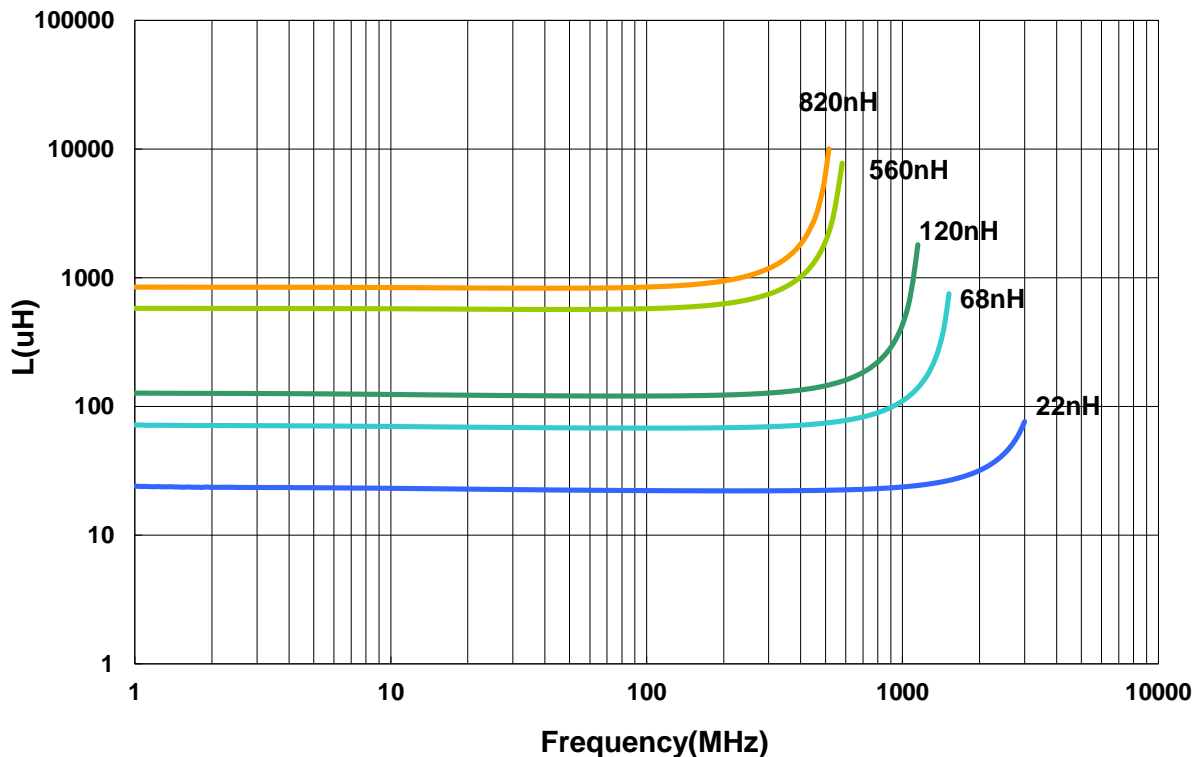
RDC: Chroma 16502

I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

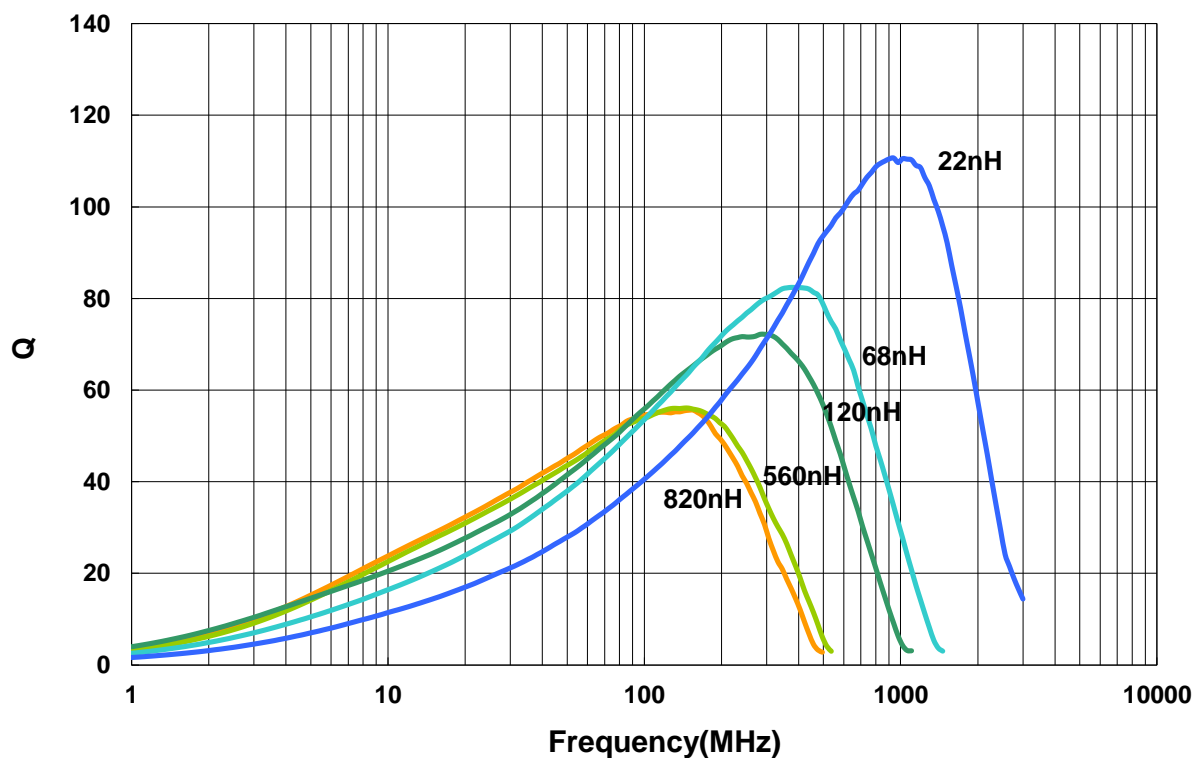
AWCS00372822 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



Chip Inductor AWCS Series

Automotive  
AEC-Q200

■ Packaging

Tape Dimensions

Figure 1

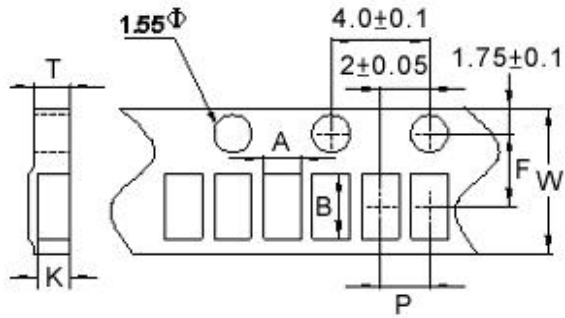


Figure 2

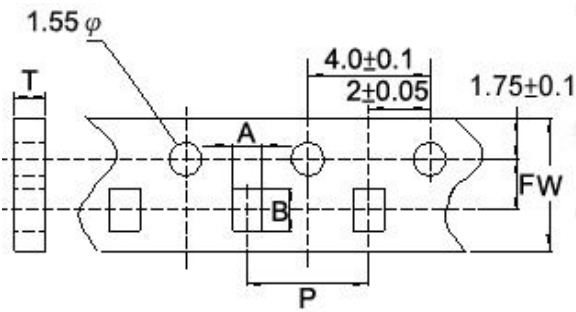
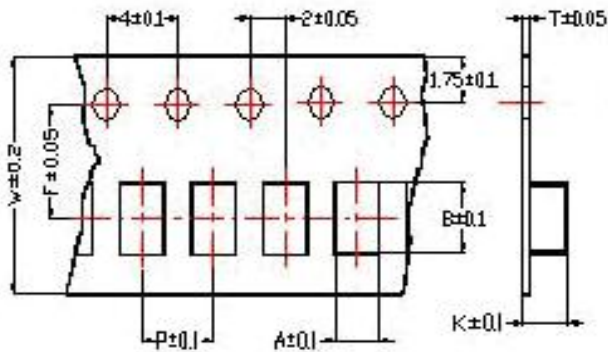
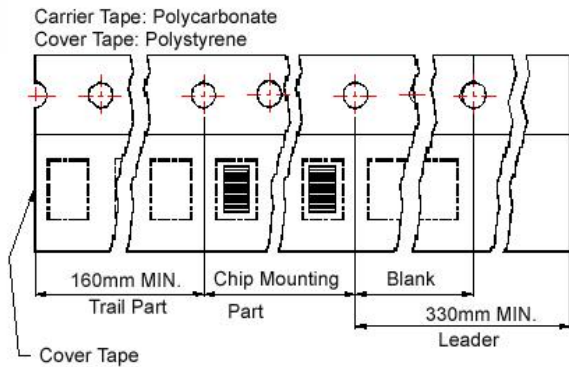
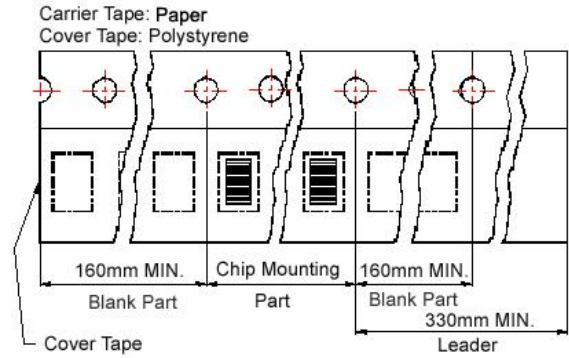


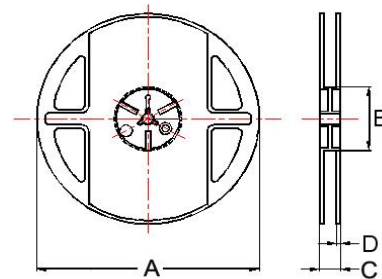
Figure 3



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
		A	B	T	W	P	F	K	A	B	C	D	
AWCS00120707	1	0.67	1.2	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
AWCS00161008	2	1.25	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000
AWCS00231715	3	1.85	2.45	0.23	8	4	3.5	1.7	178	60	12	1.5	2000
AWCS00292821	3	2.80	2.95	0.23	8	4	3.5	2.2	178	60	12	1.5	2000
AWCS00372822	3	2.85	3.58	0.26	12	4	5.5	2.55	178	60	16	1.4	2000



Chip Inductor AWP Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



- RF  
Circuit
- Unshield
- Wire  
Wound
- Ceramic
- High  
Q

Part Numbering

A	WHP	00	110706	10N	H	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			110706 1.1x0.7x0.6	3N3 3.3	B ±0.1nH	
			161008 1.6x1x0.82	10N 10	C ±0.2nH	
				R10 100	H ±3%	
					J ±5%	

This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

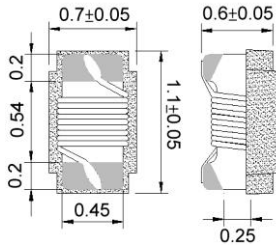


## Chip Inductor AWHP Series

Automotive  
AEC-Q200

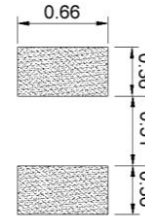
### AWHP00110706 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Typ.	SRF (MHz)Typ.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWHP001107061N0□00	1	250/250		18	16000	0.03	2300	0.1nH
AWHP001107062N0□00	2	250/250		18	15200	0.038	2100	0.2nH
AWHP001107062N2□00	2.2	250/250		25	15100	0.045	2100	0.2nH
AWHP001107062N4□00	2.4	250/250		25	14000	0.045	2000	0.2nH
AWHP001107062N7□00	2.7	250/250		20	13000	0.09	1500	0.2nH
AWHP001107063N3□00	3.3	250/250		20	12800	0.05	1700	3,5
AWHP001107063N6□00	3.6	250/250		28	11700	0.065	1700	3,5
AWHP001107063N9□00	3.9	250/250		28	9500	0.065	1700	3,5
AWHP001107064N3□00	4.3	250/250		22	7150	0.06	1600	3,5
AWHP001107064N7□00	4.7	250/250		18	6850	0.115	1500	3,5
AWHP001107065N1□00	5.1	250/250		20	6800	0.125	1200	3,5
AWHP001107065N6□00	5.6	250/250		28	6800	0.07	1600	3,5
AWHP001107066N2□00	6.2	250/250		25	5800	0.07	1600	3,5
AWHP001107066N8□00	6.8	250/250		25	5800	0.095	1500	3,5
AWHP001107067N5□00	7.5	250/250		25	5400	0.13	1400	3,5
AWHP001107068N2□00	8.2	250/250		30	5400	0.08	1500	3,5
AWHP001107068N7□00	8.7	250/250		30	5000	0.085	1500	3,5
AWHP001107069N0□00	9	250/250		28	5000	0.09	1400	3,5
AWHP001107069N5□00	9.5	250/250		30	4700	0.095	1400	3,5
AWHP0011070610N□00	10	250/250		30	4700	0.12	1300	3,5
AWHP0011070611N□00	11	250/250		30	4700	0.095	1400	3,5
AWHP0011070612N□00	12	250/250		25	4400	0.11	1200	3,5
AWHP0011070613N□00	13	250/250		30	4200	0.14	870	3,5
AWHP0011070615N□00	15	250/250		30	3900	0.13	1100	3,5
AWHP0011070616N□00	16	250/250		30	3700	0.15	850	3,5
AWHP0011070618N□00	18	250/250		30	3550	0.16	900	3,5
AWHP0011070619N□00	19	250/250		30	3500	0.175	850	3,5
AWHP0011070620N□00	20	250/250		30	3500	0.22	780	3,5
AWHP0011070621N□00	21	250/250		30	1700	0.36	450	3,5
AWHP0011070622N□00	22	250/250		30	3300	0.21	800	3,5
AWHP0011070623N□00	23	250/250		30	3150	0.21	700	3,5

**Note: When ordering, please specify tolerance code. Tolerance: B=±0.1nH / C=±0.2nH / H=±3% / J=±5%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

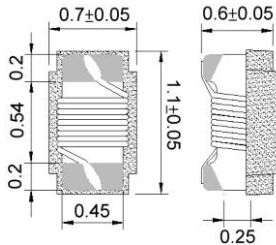
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

Chip Inductor AWHP Series

Automotive  
AEC-Q200

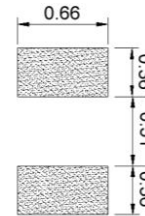
AWHP00110706 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Typ.	SRF (MHz)Typ.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWHP0011070624N□00	24	250/250		30	3150	0.26	700	3,5
AWHP0011070625N□00	25	250/250		30	3150	0.31	700	3,5
AWHP0011070626N□00	26	250/250		30	3150	0.275	700	3,5
AWHP0011070627N□00	27	250/250		30	3200	0.3	450	3,5
AWHP0011070630N□00	30	250/250		30	2900	0.35	450	3,5
AWHP0011070633N□00	33	250/250		30	2800	0.38	490	3,5
AWHP0011070636N□00	36	250/250		30	2800	0.48	480	3,5
AWHP0011070637N□00	37	250/250		30	2700	0.49	470	3,5
AWHP0011070639N□00	39	250/250		30	2600	0.52	450	3,5
AWHP0011070640N□00	40	250/250		30	2600	0.52	450	3,5
AWHP0011070643N□00	43	250/250		29	2500	0.72	450	3,5
AWHP0011070647N□00	47	250/250		30	2400	0.72	420	3,5
AWHP0011070647N□00	47	250/250		30	2400	0.72	420	3,5
AWHP0011070651N□00	51	250/250		30	2300	0.98	360	3,5

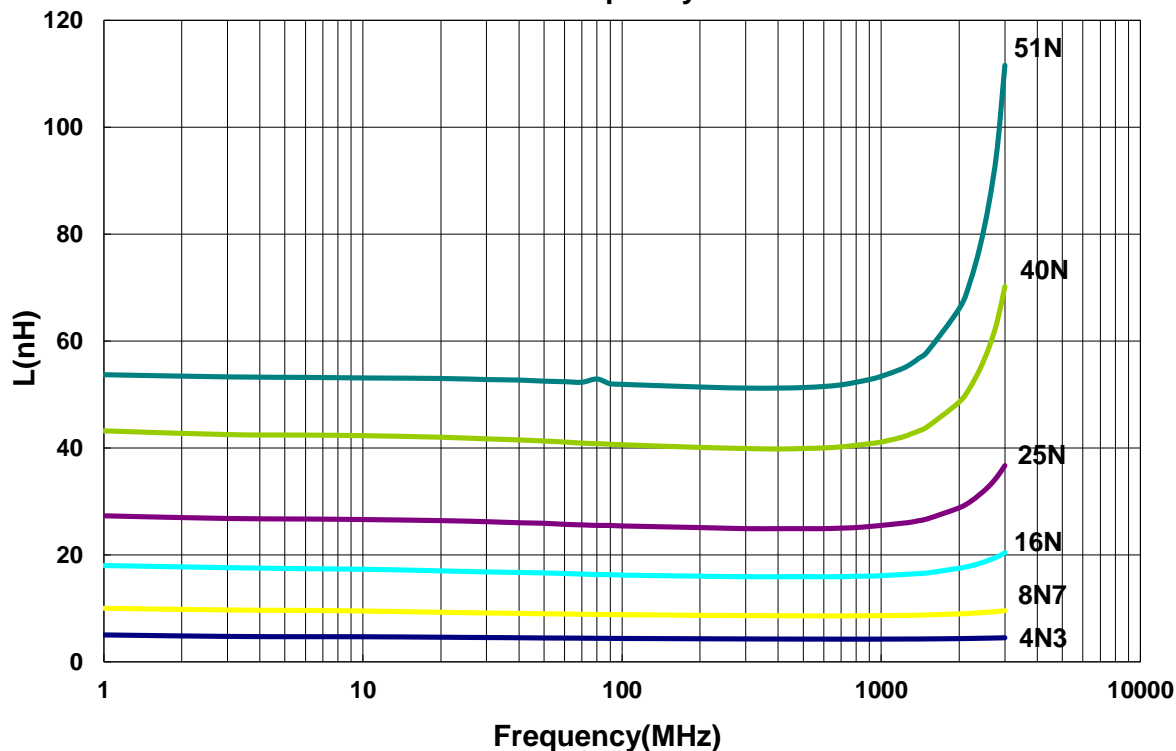
Note: When ordering, please specify tolerance code. Tolerance: B=±0.1nH / C=±0.2nH / H=±3% / J=±5%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:  
L & Q: Agilent E4991A+Agilent HP16197A  
SRF: Agilent HP8753D/Agilent HP8722ES  
RDC: Chroma 16502  
I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

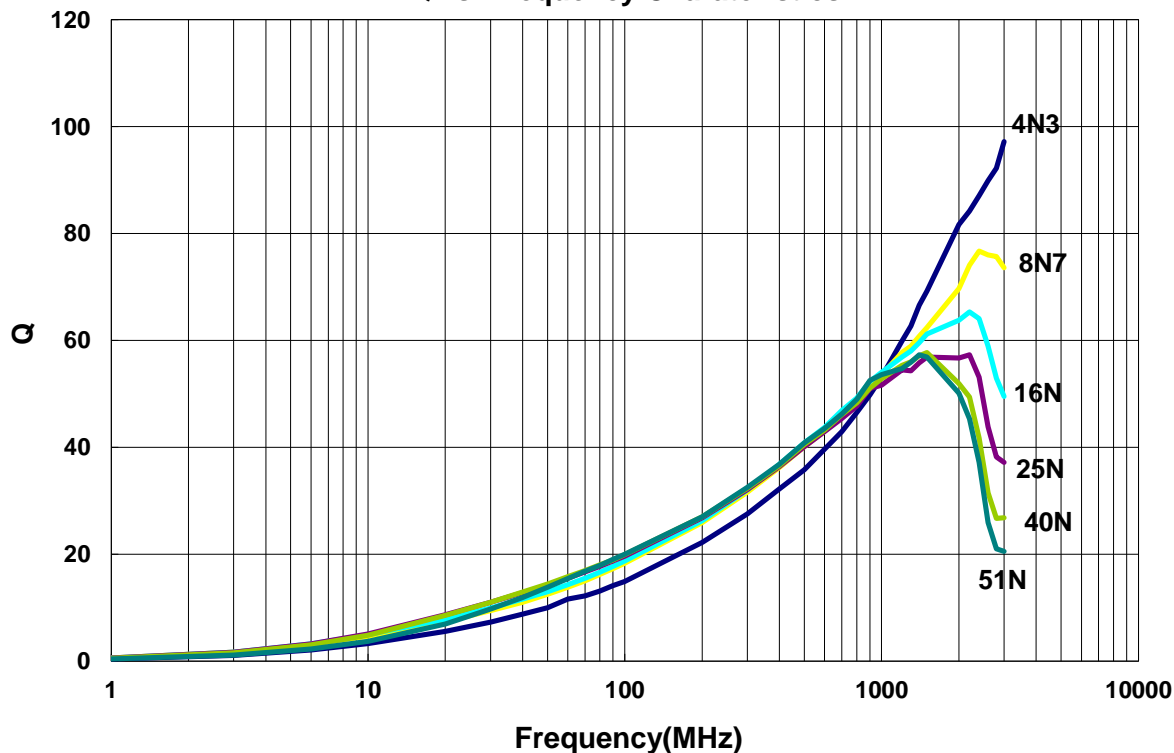
AWHP00110706 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

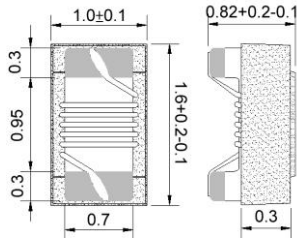


## Chip Inductor AWHP Series

Automotive  
AEC-Q200

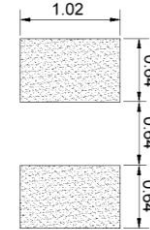
### AWHP00161008 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Typ.	SRF (MHz)Typ.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWHP001610081N8□00	1.8	250/250		23	16000	0.033	2100	5
AWHP001610082N2□00	2.2	250/250		13	15000	0.182	900	5
AWHP001610083N9□00	3.9	250/250		26	7500	0.062	1600	5
AWHP001610084N3□00	4.3	250/250		26	7500	0.088	1300	3,5
AWHP001610084N7□00	4.7	250/250		25	7900	0.13	1100	3,5
AWHP001610086N8□00	6.8	250/250		40	5800	0.065	1400	3,5
AWHP001610087N2□00	7.2	250/250		32	5400	0.1	1400	3,5
AWHP001610087N5□00	7.5	250/250		32	5300	0.1	1300	3,5
AWHP0016100811N□00	11	250/250		41	4100	0.086	1400	3,5
AWHP0016100815N□00	15	250/250		42	3600	0.11	1200	3,5
AWHP0016100816N□00	16	250/250		40	3500	0.125	1100	3,5
AWHP0016100822N□00	22	250/250		40	3150	0.195	850	3,5
AWHP0016100823N□00	23	250/250		40	3000	0.15	850	3,5
AWHP0016100824N□00	24	250/250		42	2950	0.125	1100	3,5
AWHP0016100827N□00	27	250/250		42	2800	0.2	780	3,5
AWHP0016100830N□00	30	250/250		49	2800	0.13	920	3,5
AWHP0016100833N□00	33	250/250		45	2700	0.17	680	3,5
AWHP0016100836N□00	36	250/250		44	2500	0.225	720	3,5
AWHP0016100839N□00	39	250/250		48	2450	0.19	680	3,5
AWHP0016100843N□00	43	250/250		45	2450	0.225	810	3,5
AWHP0016100847N□00	47	200/250		43	2300	0.24	680	3,5
AWHP0016100851N□00	51	200/250		42	2300	0.28	660	3,5
AWHP0016100856N□00	56	200/250		43	2200	0.3	610	3,5
AWHP0016100868N□00	68	200/250		43	2000	0.33	600	3,5
AWHP0016100872N□00	72	150/250		37	1900	0.42	550	3,5
AWHP0016100875N□00	75	150/250		37	1900	0.52	500	3,5
AWHP0016100882N□00	82	150/250		38	1800	0.46	510	3,5
AWHP0016100891N□00	91	150/250		45	1650	0.58	440	3,5
AWHP00161008R10□00	100	150/250		49	1700	0.54	470	3,5
AWHP00161008R11□00	110	150/250		47	1600	0.62	440	3,5

**Note: When ordering, please specify tolerance code. Tolerance: H=±3% / J=±5%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent HP8722ES

RDC: Chroma 16502

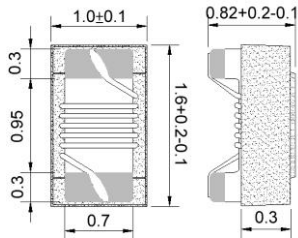
I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

Chip Inductor AWHP Series

Automotive  
AEC-Q200

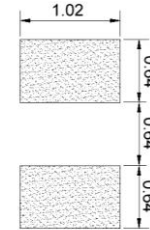
AWCS00161008 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Typ.	SRF (MHz)Typ.	RDC ( $\Omega$ )Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWHP00161008R12□00	120	150/250		47	1550	0.72	420	3,5
AWHP00161008R15□00	150	150/250		47	1350	1.15	390	3,5
AWHP00161008R18□00	180	100/250		48	1300	1.5	310	3,5
AWHP00161008R20□00	200	100/250		47	1250	2	280	3,5
AWHP00161008R21□00	210	100/250		48	1200	2	280	3,5
AWHP00161008R22□00	220	100/250		47	1100	2	280	3,5
AWHP00161008R25□00	250	100/250		45	1050	3	240	3,5
AWHP00161008R27□00	270	100/250		46	1050	2.25	260	3,5
AWHP00161008R30□00	300	100/250		47	990	2.8	220	3,5
AWHP00161008R33□00	330	100/250		46	930	3.6	180	3,5
AWHP00161008R36□00	360	100/250		47	930	4	170	3,5
AWHP00161008R39□00	390	100/250		47	880	4	170	3,5

Note: When ordering, please specify tolerance code. Tolerance: H=±3% / J=±5%

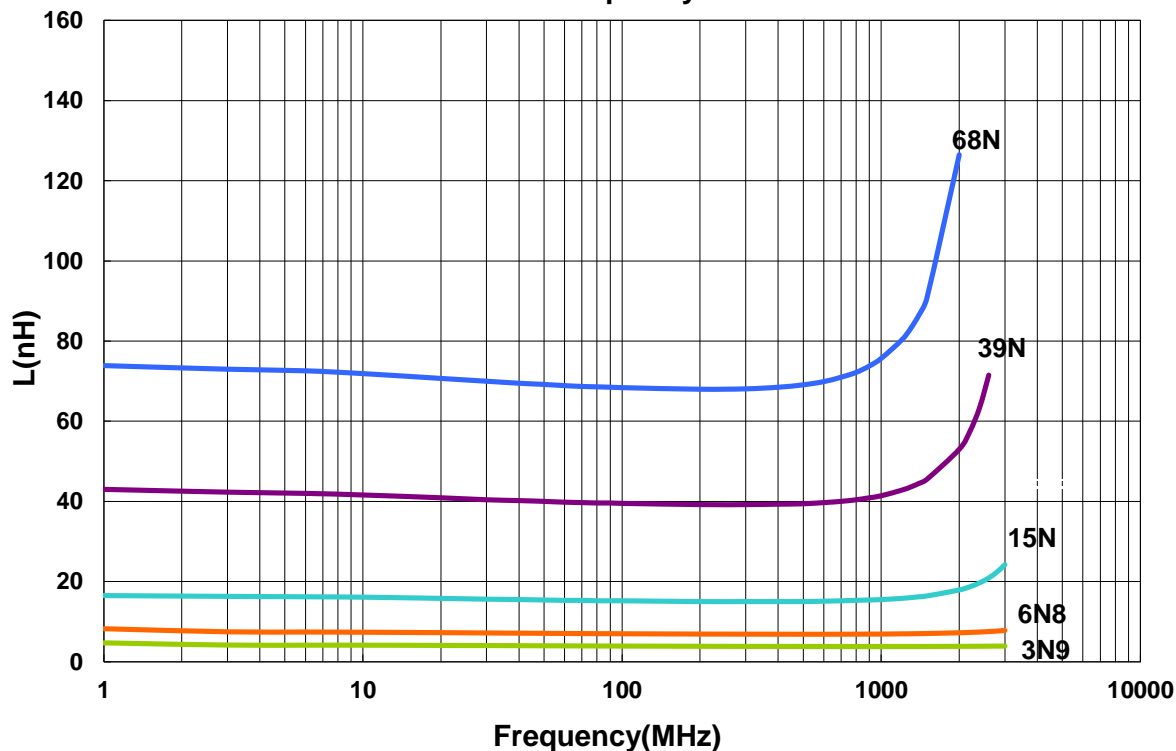
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent HP8722ES  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

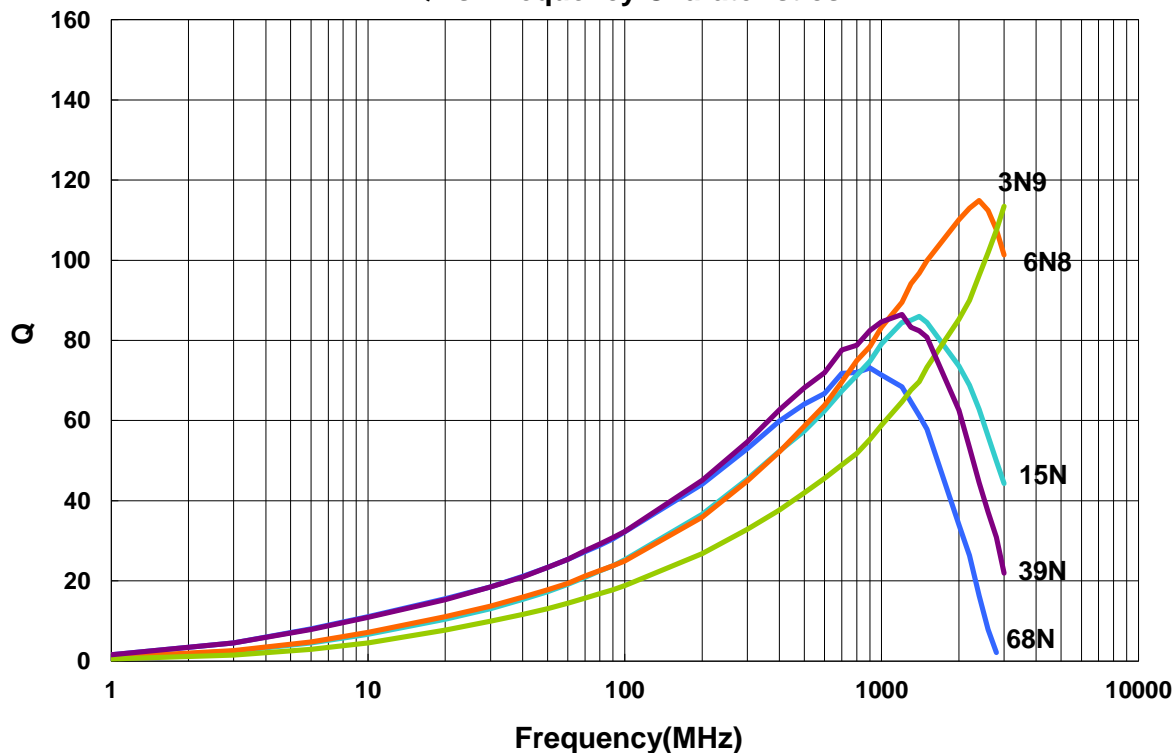
AWHP00161008 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



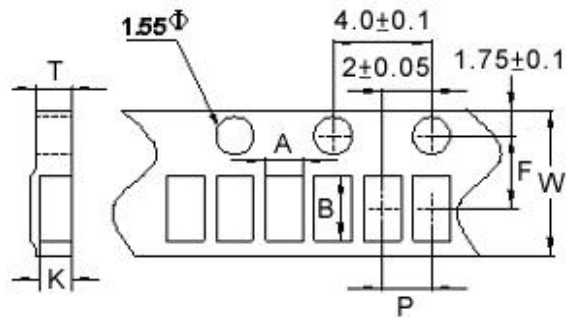
Chip Inductor AWHP Series

Automotive  
AEC-Q200

■ Packaging

Tape Dimensions

Figure 1



Tape Material

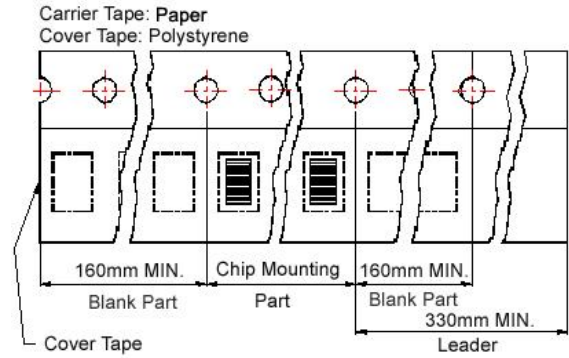
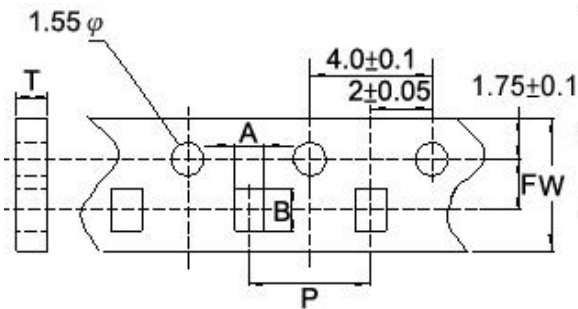
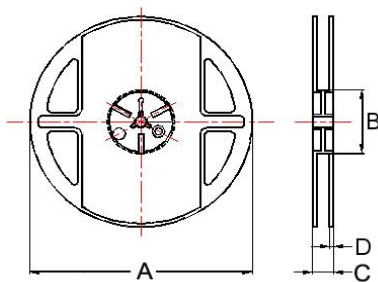


Figure 2



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
		A	B	T	W	P	F	K	A	B	C	D	
AWHP00110706	1	0.8	1.20	0.75	8	2	3.5	0.62	178	60	12	1.5	4000
AWHP00161008	2	1.23	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000

**Chip Inductor AWHH Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- RF  
Circuit
- Unshield
- Wire  
Wound
- Ceramic
- High  
Q

**Part Numbering**

A	WHH	00	161108	10N	H	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	
			161108 1.6x1.12x0.82	3N3 3.3 10N 10	H ±3% J ±5%	

This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

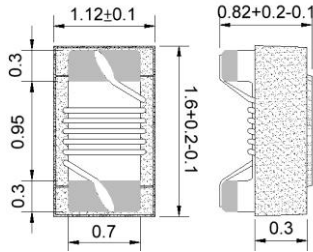


Chip Inductor AWHH Series

Automotive  
AEC-Q200

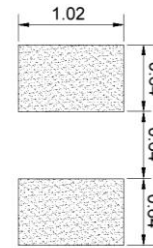
AWHH00161108 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Typ.	SRF (GHz)Typ.	RDC (Ω)Max.	I <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWHH001611083N3□00	3.3	250/250		36	9.6	0.034	1900	5,3
AWHH001611083N6□00	3.6	250/250		28	9.7	0.04	1900	5,3
AWHH001611085N1□00	5.1	250/250		38	8.9	0.042	1700	5,3
AWHH001611085N6□00	5.6	250/250		35	6.6	0.042	1700	5,3
AWHH001611086N0□00	6	250/250		49	6	0.042	1700	5,3
AWHH001611088N2□00	8.2	250/250		40	5.9	0.054	1400	5,3
AWHH001611088N7□00	8.7	250/250		46	5.5	0.054	1400	5,3
AWHH001611089N1□00	9.1	250/250		40	5.1	0.052	1400	5,3
AWHH001611089N5□00	9.5	250/250		42	4.9	0.054	1400	5,3
AWHH0016110810N□00	10	250/250		44	4.3	0.054	1400	5,3
AWHH0016110812N□00	12	250/250		40	4.1	0.088	1100	5,3
AWHH0016110818N□00	18	250/250		45	3.3	0.082	1200	5,3

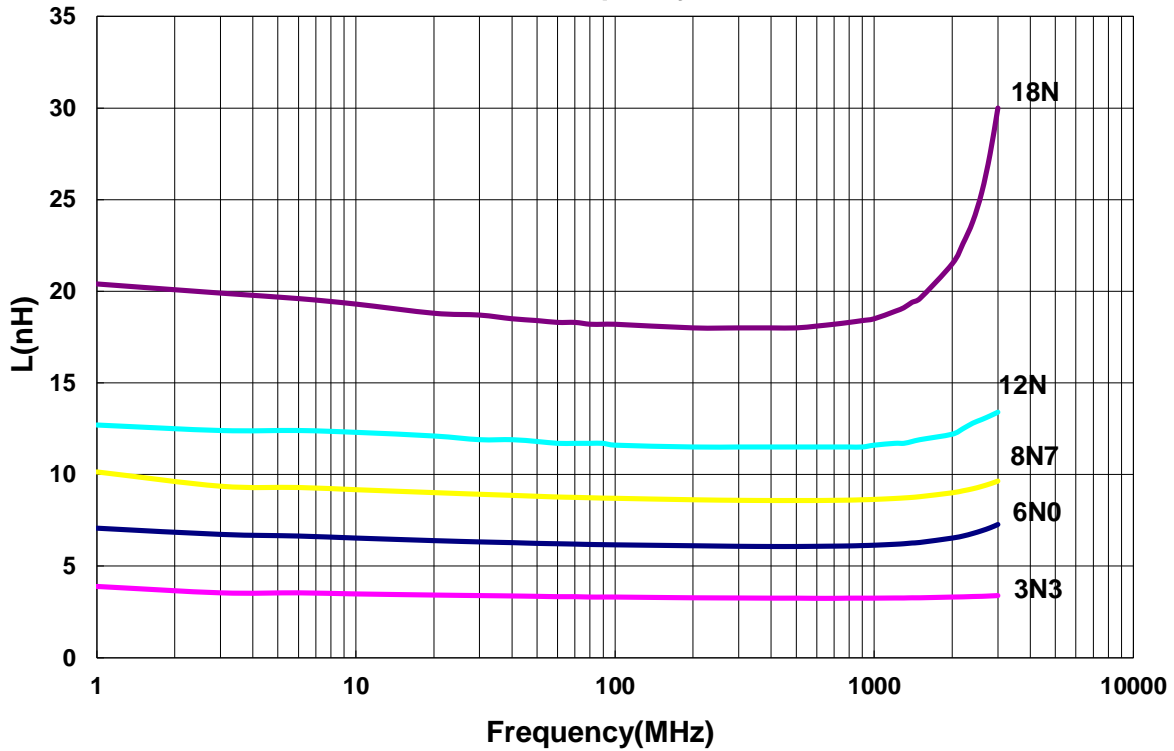
Note: When ordering, please specify tolerance code. Tolerance: H=±3% / J=±5%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:  
L & Q: Agilent E4991A+Agilent HP16197A  
SRF: Agilent E5071C  
RDC: Chroma 16502  
I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

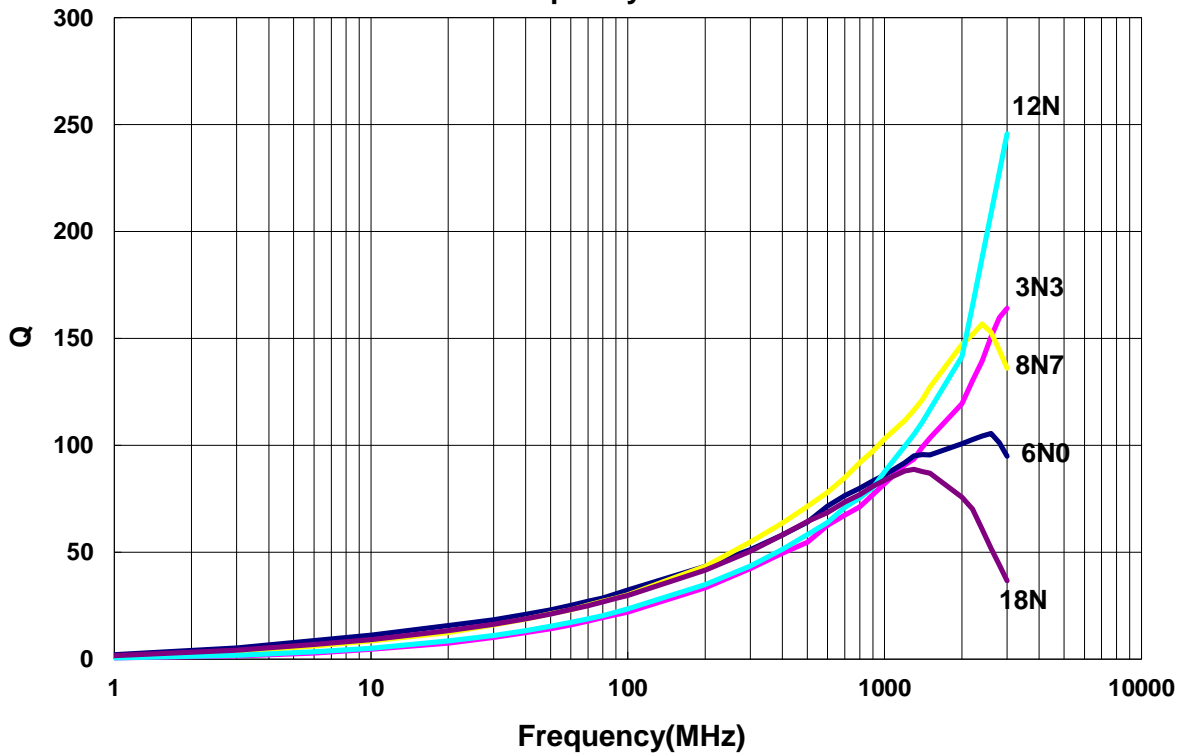
AWHH00161108 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

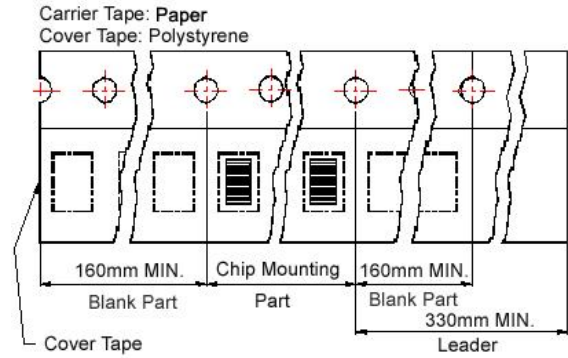
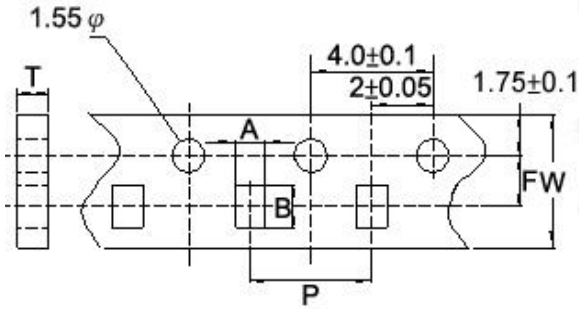


Chip Inductor AWHH Series

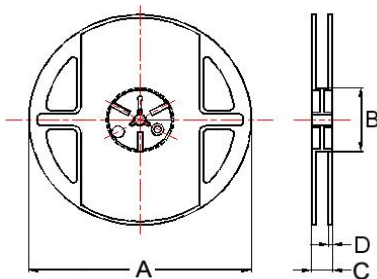
Automotive  
AEC-Q200

■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	A	B	C	D	
AWHH00161108	1.25	1.90	1.05	8	4	3.5	178	60	12	1.5	4000

**Chip Inductor AWVI Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- RF  
Circuit
- Unshield
- Wire  
Wound
- Ferrite
- General  
Signal line

**Part Numbering**

<b>A</b>	<b>WVI</b>	<b>00</b>	<b>322522</b>	<b>3R3</b>	<b>K</b>	<b>H0</b>
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			322522 3.2x2.5x2.2	3R3 3.3 100 10 331 330	K ±10% J ±5%	

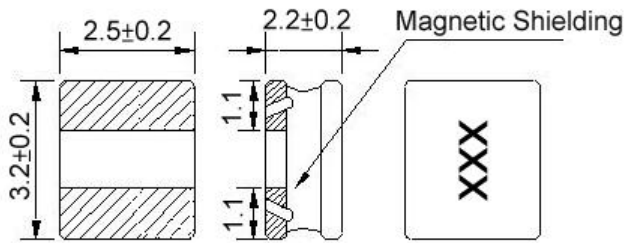
This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Inductor AWWI Series

Automotive  
AEC-Q200

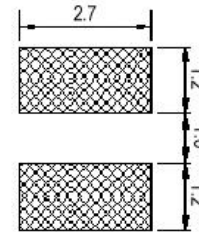
AWVI00322522 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq. (MHz)	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Irms (mA)Max.	Tolerance (±%)	Marking
AWVI003225223R3JH0	3.3	7.96/2.52	10	45	0.18	770	5,10	3R3
AWVI003225224R7JH0	4.7	7.96/2.52	10	40	0.25	700	5,10	4R7
AWVI00322522100JH0	10	2.52/2.52	12	25	0.46	500	5,10	100
AWVI00322522220JH0	22	2.52/2.52	12	14	1.0	330	5,10	220
AWVI00322522330JH0	33	2.52/2.52	15	10	1.4	280	5,10	330
AWVI00322522470JH0	47	2.52/2.52	15	8.0	2.1	230	5,10	470
AWVI00322522331JH0	330	0.796/0.796	20	3.5	13	90	5,10	331
AWVI00322522471JH0	470	0.796/0.796	20	2.5	20	76	5,10	471
AWVI00322522681JH0	680	0.796/0.796	20	2.0	31	61	5,10	681
AWVI00322522102JH0	1000	100kHz/100kHz	10	1.5	40	60	5,10	102

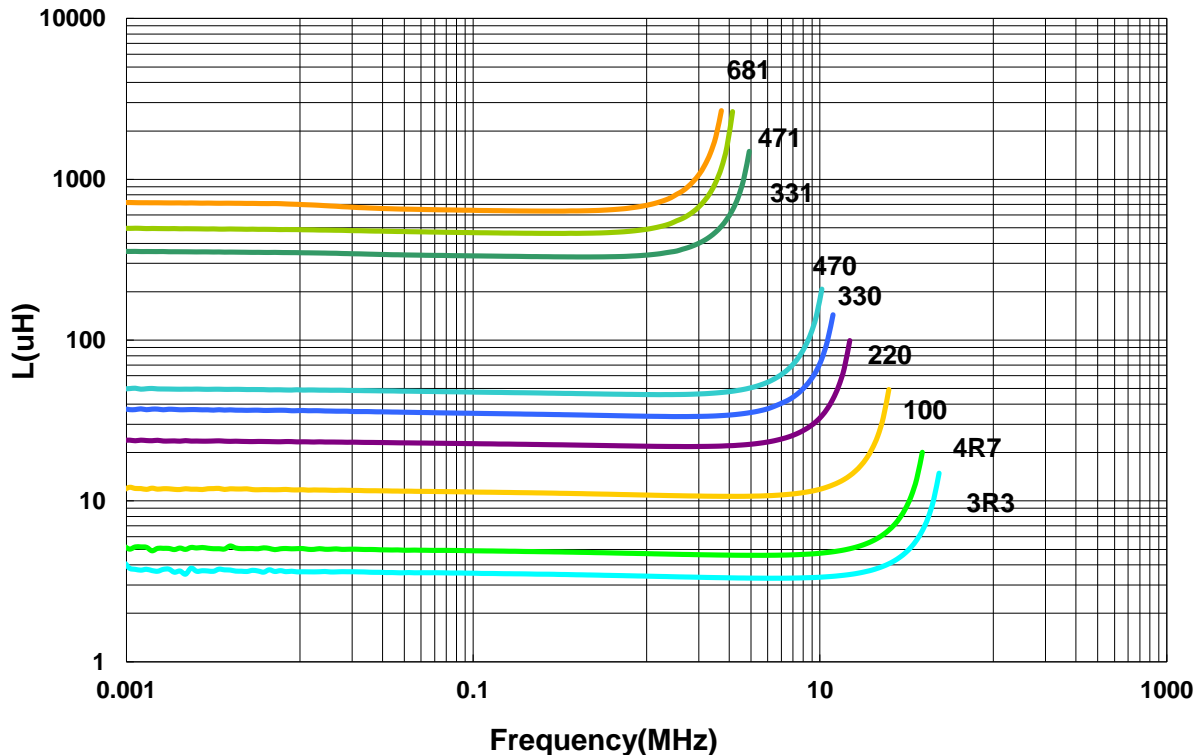
Note: When ordering, please specify tolerance code. Tolerance: J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment:  
L & Q: Agilent E4991A (over 1MHz)+Agilent HP16197A/Agilent HP4285A (under 1MHz)  
SRF: Agilent E4991A+Agilent HP16197A or equivalent  
RDC: DIGITAL MILLINHM METER CHROMA 16502  
Irms: HP4285A+HP42841A

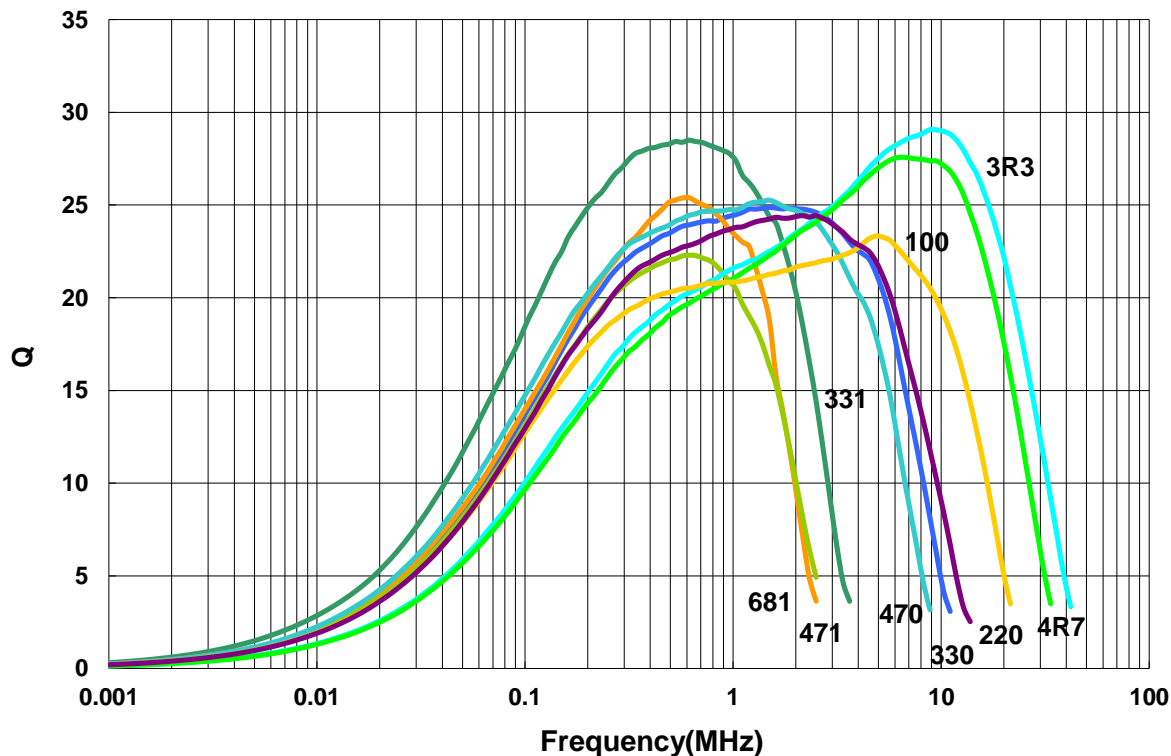
AWVI00322522 Type

■ Characteristics Graph

Inductance vs. Frequency Charactreistics



Frequency vs.Q

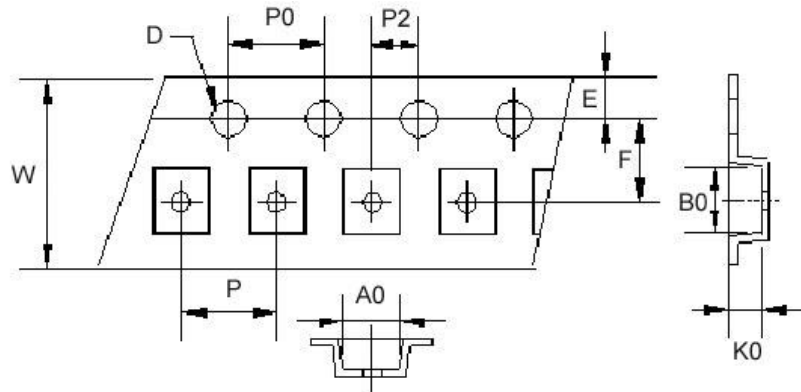


**Chip Inductor AWWI Series**

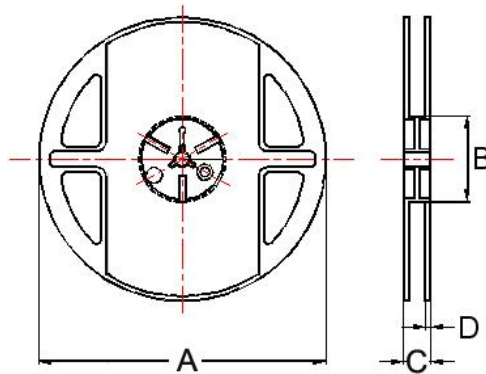
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



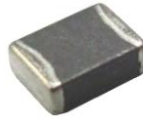
Dimensions in mm

TYPE	Tape Dimensions											Reel Dimensions				Quantity
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	PCS / Reel	
AWVI00322522	2.8	3.4	2.4	1.5	1.75	3.5	8	4	4	2	178	60	12	1.5	1000	

**Chip Bead ABSJ Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



- Noise  
Suppression
- Shield
- Multilayer
- Ferrite
- General  
Signal line

**Part Numbering**

A	BSJ	00	100505	600	Y	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance (Ω)	Tolerance	Internal Code
			100505 1.0x0.5x0.5	600 60	Y ±25%	
			160808 1.6x0.8x0.8	121 120		
				102 1000		

This specification applies to Multilayer Chip ferrite Bead for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

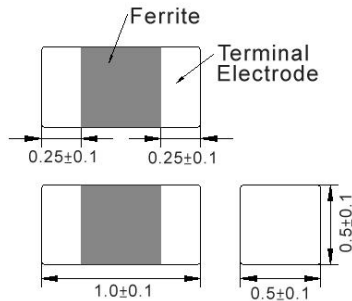


Chip Bead ABSJ Series

Automotive  
AEC-Q200

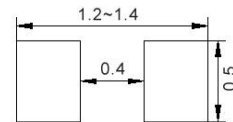
ABSJ00100505 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

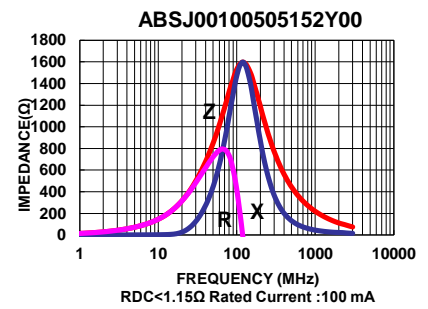
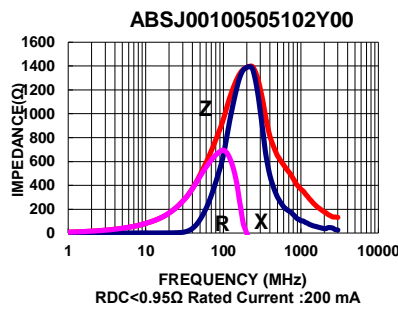
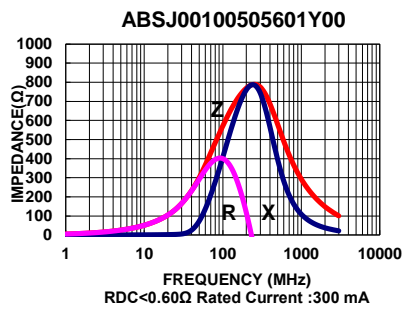
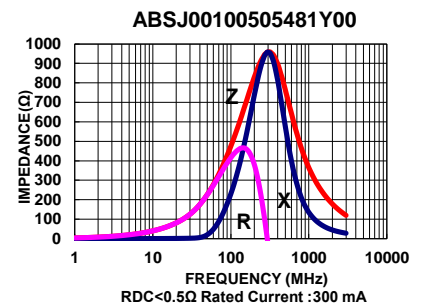
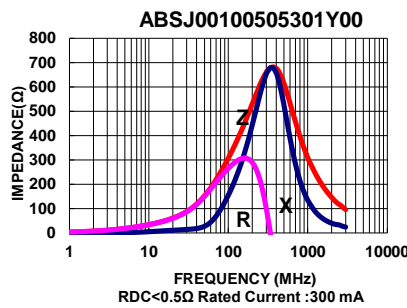
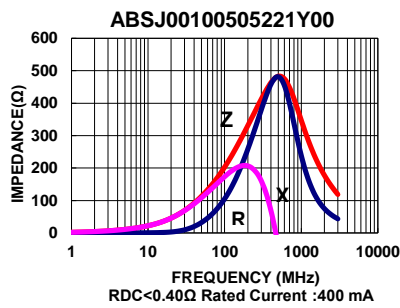
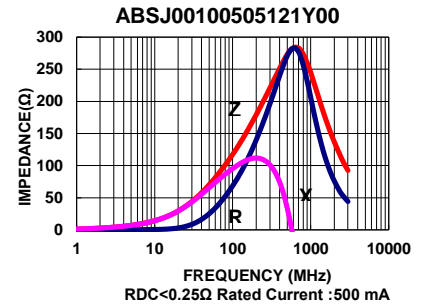
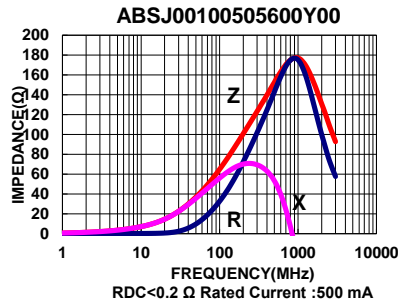
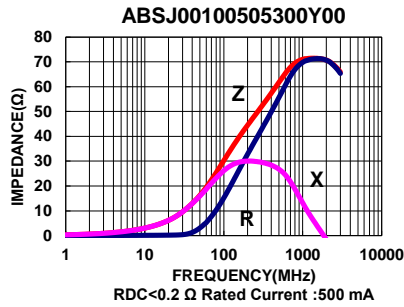
Part No.	Impedance (Ω)	Test Freq.	RDC (Ω)Max.	Rated Current (mA)Max.
ABSJ00100505300Y00	30	100 MHz,200 mV	0.20	500
ABSJ00100505600Y00	60	100 MHz,200 mV	0.20	500
ABSJ00100505121Y00	120	100 MHz,200 mV	0.25	500
ABSJ00100505221Y00	220	100 MHz,200 mV	0.40	400
ABSJ00100505301Y00	300	100 MHz,200 mV	0.50	300
ABSJ00100505481Y00	480	100 MHz,200 mV	0.50	300
ABSJ00100505601Y00	600	100 MHz,200 mV	0.60	300
ABSJ00100505102Y00	1000	100 MHz,200 mV	0.95	200
ABSJ00100505152Y00	1500	100 MHz,200 mV	1.15	100

Note: When ordering, please specify tolerance code. Tolerance: Y=±25%

1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABSJ00100505 Type

Characteristics Graph

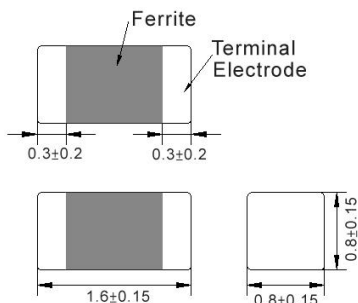


Chip Bead ABSJ Series

Automotive  
AEC-Q200

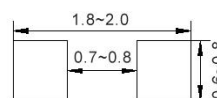
ABSJ00160808 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

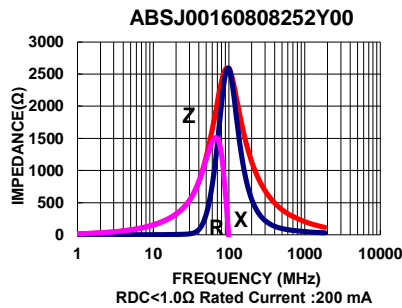
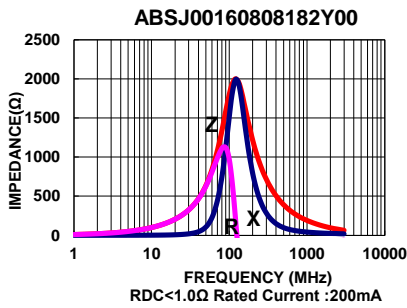
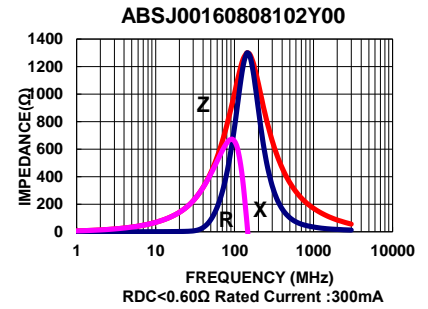
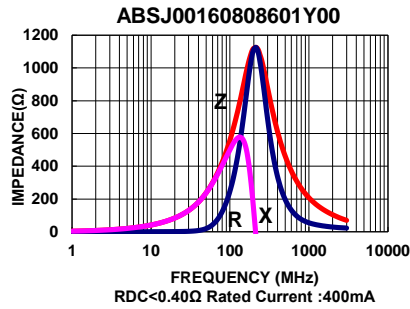
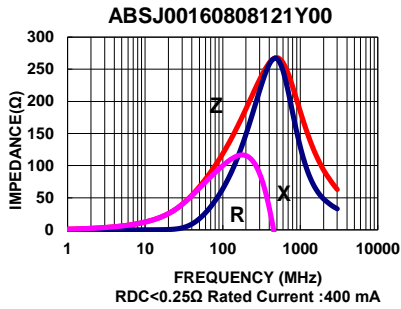
Part No.	Impedance ( $\Omega$ )	Test Freq.	RDC ( $\Omega$ )Max.	Rated Current (mA)Max.
ABSJ00160808121Y00	120	100 MHz,200 mV	0.25	400
ABSJ00160808601Y00	600	100 MHz,200 mV	0.40	400
ABSJ00160808102Y00	1000	100 MHz,200 mV	0.60	300
ABSJ00160808182Y00	1800	100 MHz,200 mV	1.00	200
ABSJ00160808252Y00	2500	100 MHz,200 mV	1.00	200

Note: When ordering, please specify tolerance code. Tolerance:  $Y = \pm 25\%$

1. Operating temperature range -  $40^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than  $30^{\circ}\text{C}$
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABSJ00160808 Type

■ Characteristics Graph

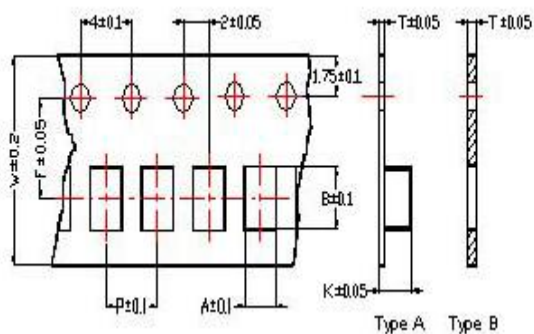


Chip Bead ABSJ Series

Automotive  
AEC-Q200

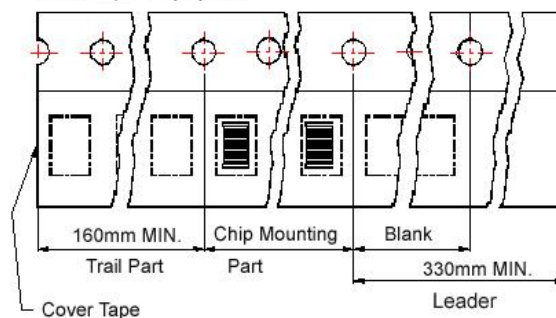
■ Packaging

Tape Dimensions

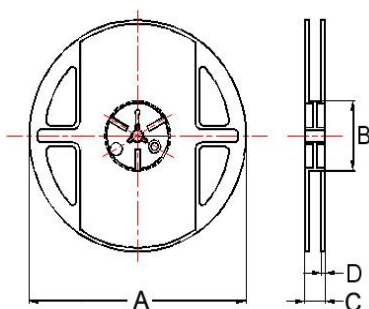


Tape Material

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



Reel Dimensions



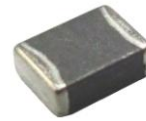
Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
ABSJ00100505	0.62	1.12	0.60	8	2	3.5	-	B	178	60	12	2	10000
ABSJ00160808	1.05	1.85	0.95	8	4	3.5	-	B	178	60	12	2	4000

## Chip Bead ABPY Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



### Part Numbering

A	BPY	00	100505	300	Y	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance (Ω)	Tolerance	Internal Code
			100505 1.0x0.5x0.5	300 30	Y ±25%	
			160808 1.6x0.8x0.8	121 120		
			201209 2.0x1.25x0.9	102 1000		
			321611 3.2x1.6x1.1			

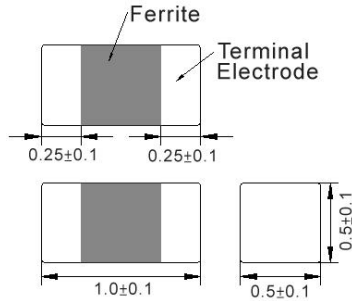
This specification applies to Multilayer Chip ferrite Bead for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Bead ABPY Series

Automotive  
AEC-Q200

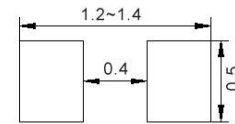
ABPY00100505 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

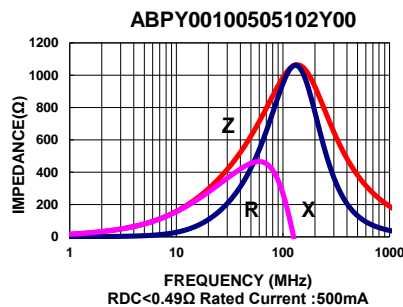
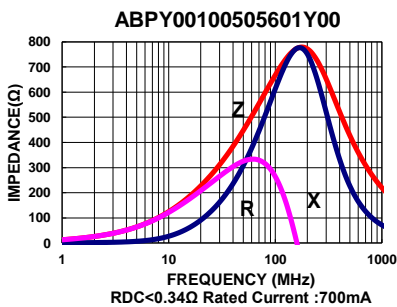
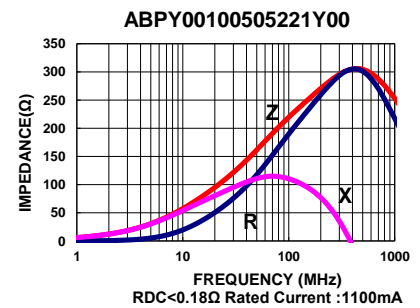
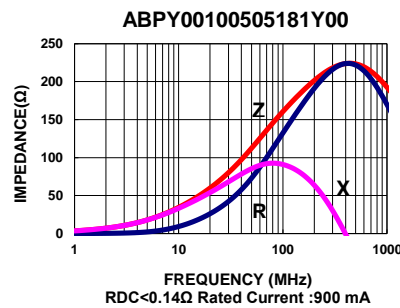
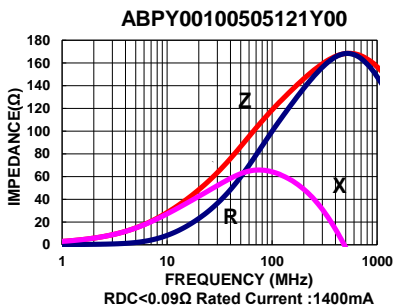
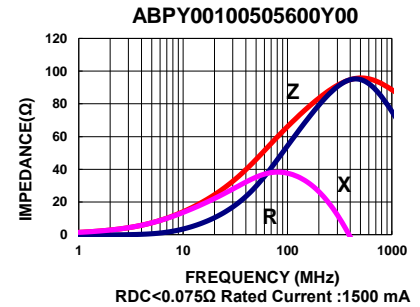
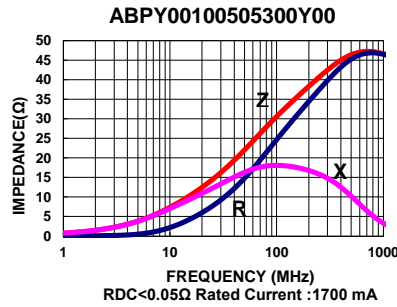
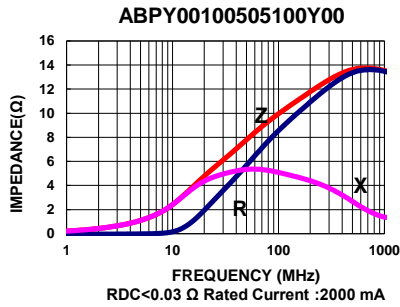
Part No.	Impedance ( $\Omega$ )	Test Freq.	RDC ( $\Omega$ )Max.	Rated Current (mA)Max.
ABPY00100505100Y00	10	100 MHz, 200 mV	0.030	2000
ABPY00100505300Y00	30	100 MHz, 200 mV	0.050	1700
ABPY00100505600Y00	60	100 MHz, 200 mV	0.075	1500
ABPY00100505121Y00	120	100 MHz, 200 mV	0.090	1400
ABPY00100505181Y00	180	100 MHz, 200 mV	0.140	900
ABPY00100505221Y00	220	100 MHz, 200 mV	0.180	1100
ABPY00100505601Y00	600	100 MHz, 200 mV	0.340	700
ABPY00100505102Y00	1000	100 MHz, 200 mV	0.490	500

Note: When ordering, please specify tolerance code. Tolerance: Y=±25%

- Operating temperature range - 40°C ~ 125°C
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABPY00100505 Type

Characteristics Graph



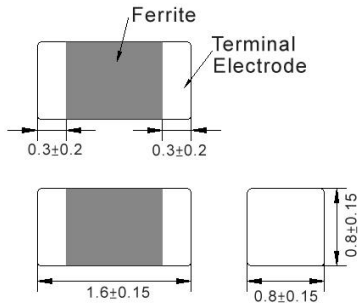


Chip Bead ABPY Series

Automotive  
AEC-Q200

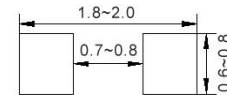
ABPY00160808 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

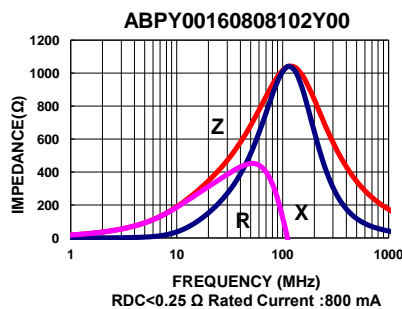
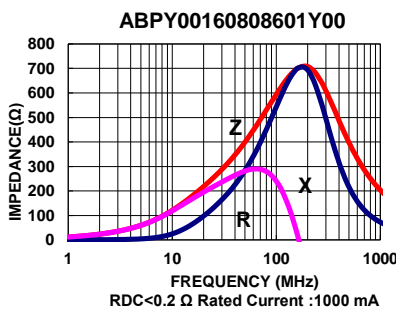
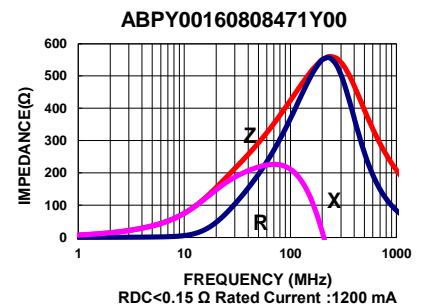
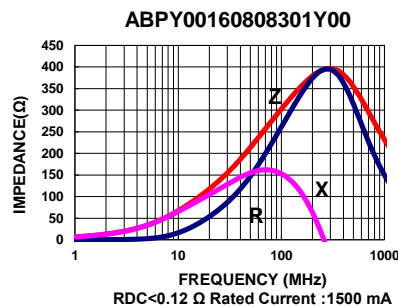
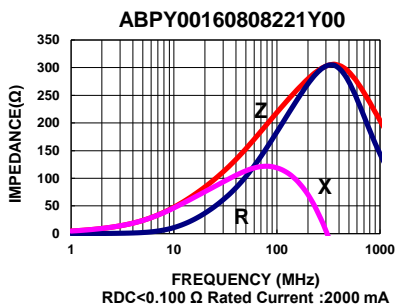
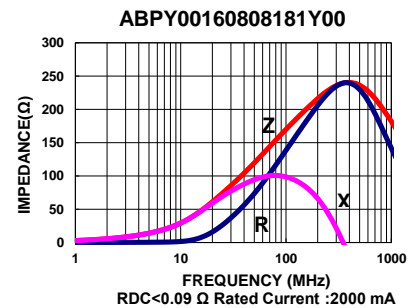
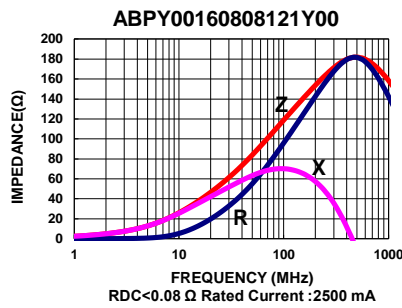
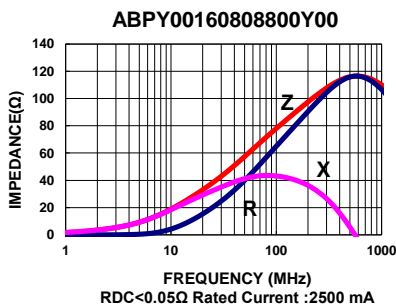
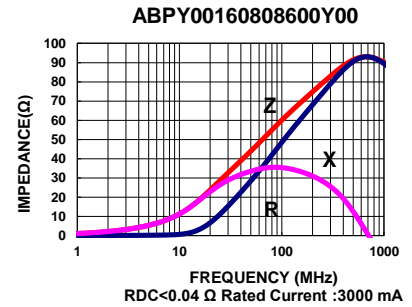
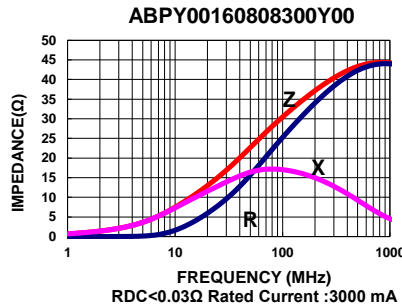
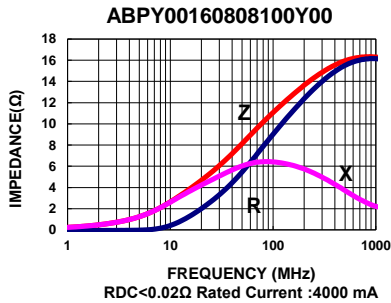
Part No.	Impedance ( $\Omega$ )	Test Freq.	RDC ( $\Omega$ )Max.	Rated Current (mA)Max.
ABPY00160808100Y00	10	100 MHz, 200 mV	0.020	4000
ABPY00160808300Y00	30	100 MHz, 200 mV	0.030	3000
ABPY00160808600Y00	60	100 MHz, 200 mV	0.040	3000
ABPY00160808800Y00	80	100 MHz, 200 mV	0.050	2500
ABPY00160808121Y00	120	100 MHz, 200 mV	0.080	2500
ABPY00160808181Y00	180	100 MHz, 200 mV	0.090	2000
ABPY00160808221Y00	220	100 MHz, 200 mV	0.100	2000
ABPY00160808301Y00	300	100 MHz, 200 mV	0.120	1500
ABPY00160808471Y00	470	100 MHz, 200 mV	0.150	1500
ABPY00160808601Y00	600	100 MHz, 200 mV	0.200	1000
ABPY00160808102Y00	1000	100 MHz, 200 mV	0.250	800

Note: When ordering, please specify tolerance code. Tolerance:  $Y = \pm 25\%$

1. Operating temperature range -  $40^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than  $30^{\circ}\text{C}$
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABPY00160808 Type

Characteristics Graph

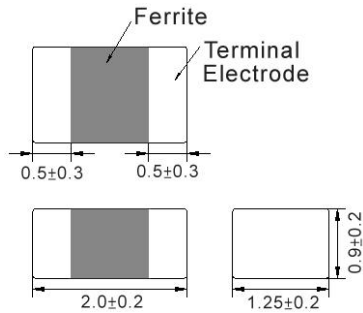


Chip Bead ABPY Series

Automotive  
AEC-Q200

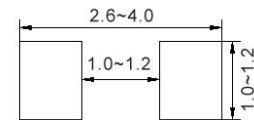
ABPY00201209 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

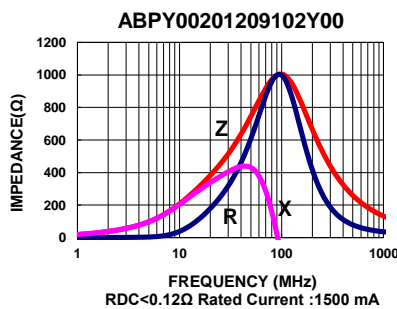
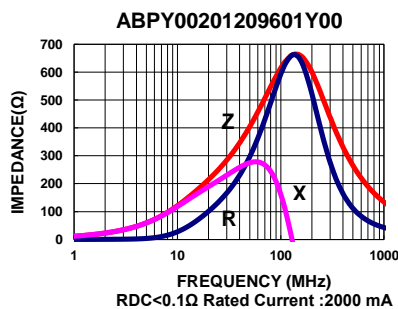
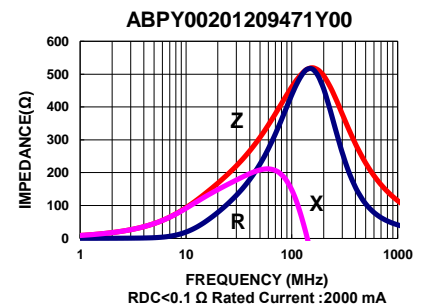
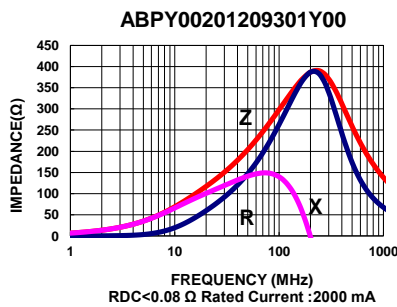
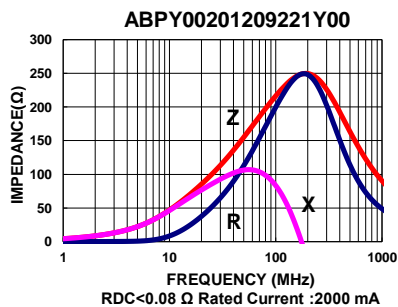
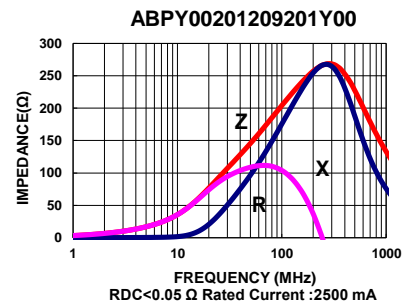
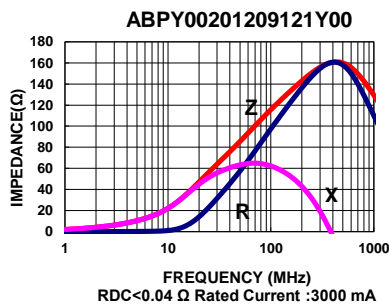
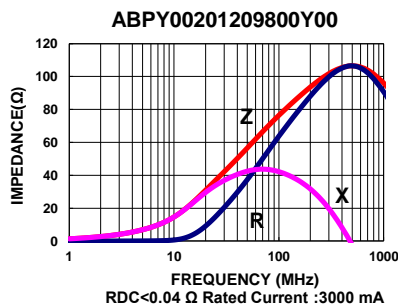
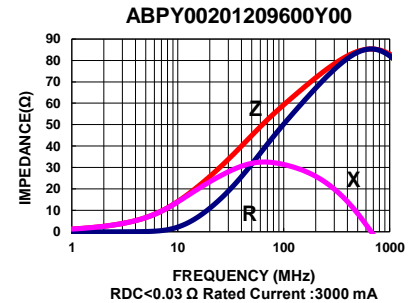
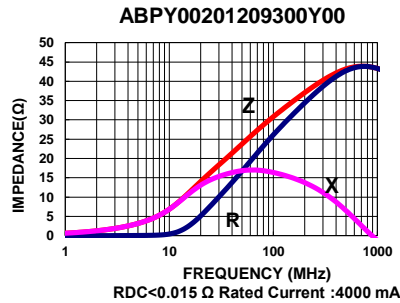
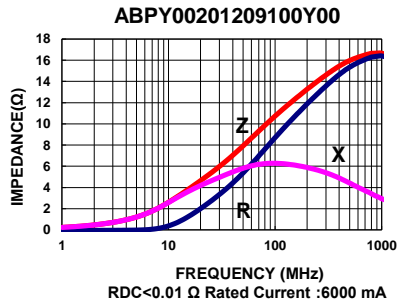
Part No.	Impedance (Ω)	Test Freq.	RDC (Ω)Max.	Rated Current (mA)Max.
ABPY00201209100Y00	10	100 MHz,200 mV	0.010	6000
ABPY00201209300Y00	30	100 MHz,200 mV	0.015	4000
ABPY00201209600Y00	60	100 MHz,200 mV	0.030	3000
ABPY00201209800Y00	80	100 MHz,200 mV	0.040	3000
ABPY00201209121Y00	120	100 MHz,200 mV	0.040	3000
ABPY00201209201Y00	200	100 MHz,200 mV	0.050	2500
ABPY00201209221Y00	220	100 MHz,200 mV	0.080	2000
ABPY00201209301Y00	300	100 MHz,200 mV	0.080	2000
ABPY00201209471Y00	470	100 MHz,200 mV	0.100	2000
ABPY00201209601Y00	600	100 MHz,200 mV	0.100	2000
ABPY00201209102Y00	1000	100 MHz,200 mV	0.120	1500

Note: When ordering, please specify tolerance code. Tolerance: Y=±25% , T=±30%

1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABPY00201209 Type

Characteristics Graph

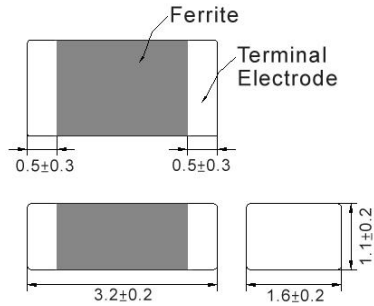


Chip Bead ABPY Series

Automotive  
AEC-Q200

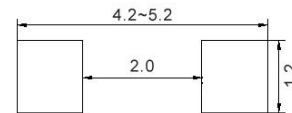
ABPY00321611 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

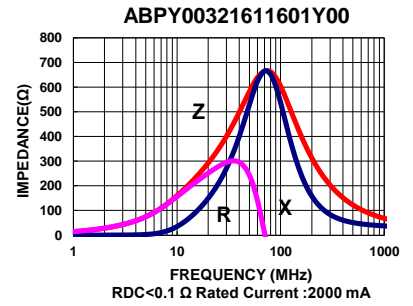
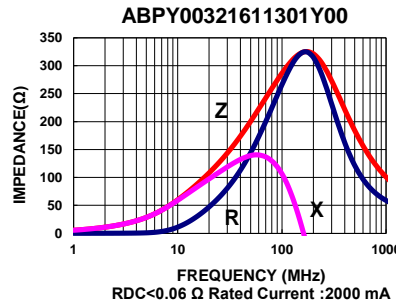
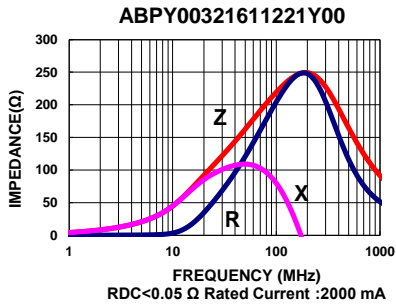
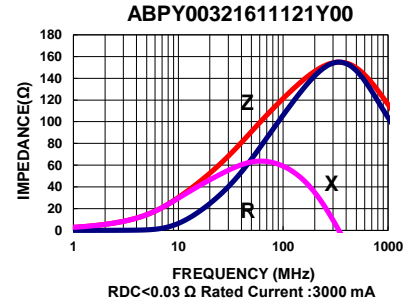
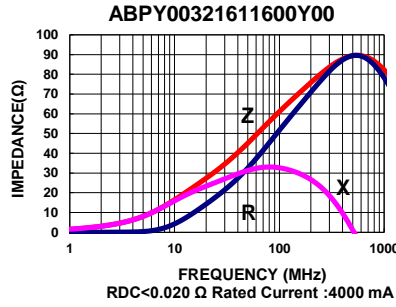
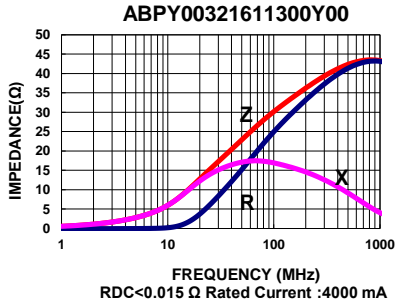
Part No.	Impedance ( $\Omega$ )	Test Freq.	RDC ( $\Omega$ )Max.	Rated Current (mA)Max.
ABPY00321611300Y00	30	100 MHz,200 mV	0.015	4000
ABPY00321611600Y00	60	100 MHz,200 mV	0.020	4000
ABPY00321611121Y00	120	100 MHz,200 mV	0.030	3000
ABPY00321611221Y00	220	100 MHz,200 mV	0.050	2000
ABPY00321611301Y00	300	100 MHz,200 mV	0.060	2000
ABPY00321611601Y00	600	100 MHz,200 mV	0.100	2000

Note: When ordering, please specify tolerance code. Tolerance: Y=±25%

1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABPY00321611 Type

Characteristics Graph

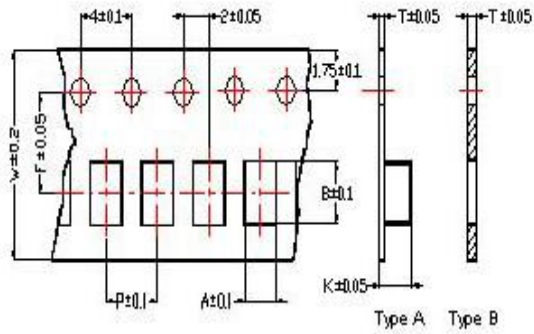


# Chip Bead ABPY Series

Automotive  
AEC-Q200

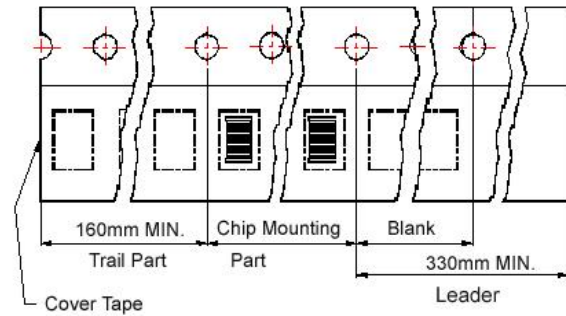
## ■ Packaging

### Tape Dimensions

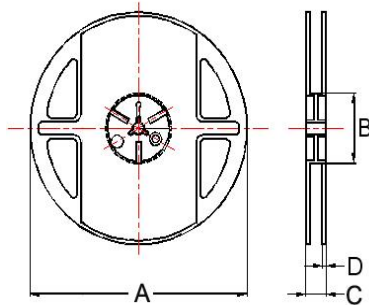


### Tape Material

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



### Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
ABPY00100505	0.62	1.12	0.60	8	2	3.5	-	B	178	60	12	2	10000
ABPY00160808	1.05	1.85	0.95	8	4	3.5	-	B	178	60	12	2	4000
ABPY00201209	1.50	2.30	0.97	8	4	3.5	-	B	178	60	12	2	4000
ABPY00321611	1.88	3.50	0.22	8	4	3.5	1.27	A	178	60	12	2	3000

## Chip Bead ABNQ Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Noise  
Suppression

Shield

Multilayer

Ferrite

High speed  
Signal line

### Part Numbering

A	BNQ	00	100505	121	Y	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance ( $\Omega$ )	Tolerance	Internal Code
			100505 1.0x0.5x0.5	600 60	Y $\pm 25\%$	
			160808 1.6x0.8x0.8	121 120		
				102 1000		

This specification applies to Multilayer Chip ferrite Bead for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

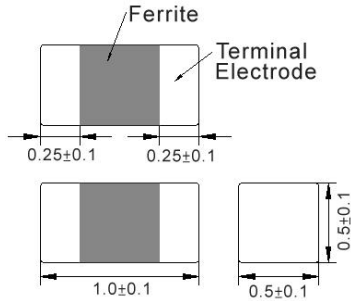


Chip Bead ABNQ Series

Automotive  
AEC-Q200

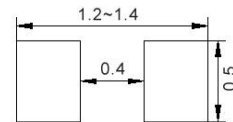
ABNQ00100505 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

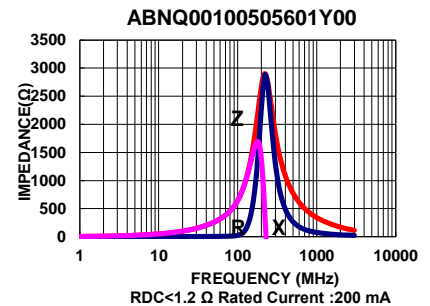
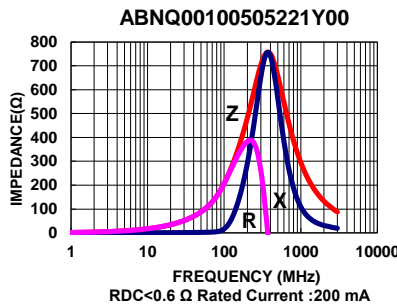
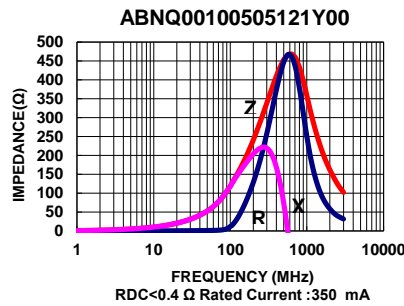
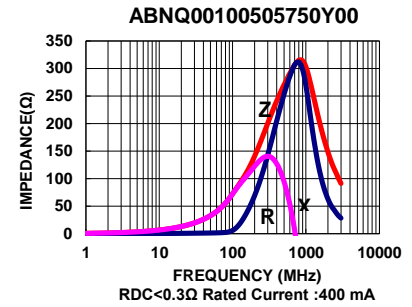
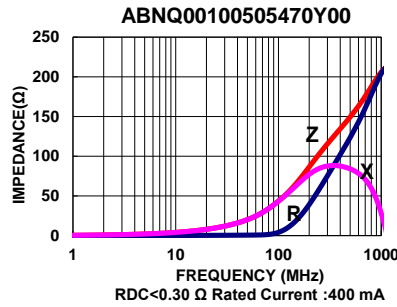
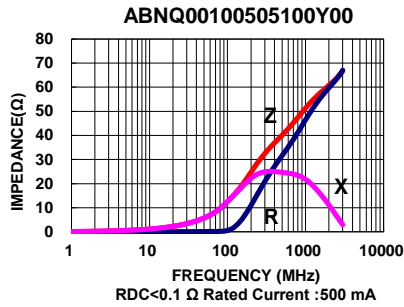
Part No.	Impedance (Ω)	Test Freq.	RDC (Ω)Max.	Rated Current (mA)Max.
ABNQ00100505100Y00	10	100 MHz,200 mV	0.10	500
ABNQ00100505470Y00	47	100 MHz,200 mV	0.30	400
ABNQ00100505750Y00	75	100 MHz,200 mV	0.30	400
ABNQ00100505121Y00	120	100 MHz,200 mV	0.40	350
ABNQ00100505221Y00	220	100 MHz,200 mV	0.60	200
ABNQ00100505601Y00	600	100 MHz,200 mV	1.20	200

Note: When ordering, please specify tolerance code. Tolerance: Y=±25%

1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABNQ00100505 Type

Characteristics Graph

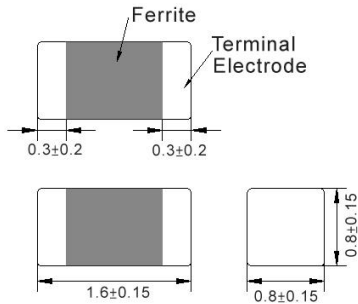


Chip Bead ABNQ Series

Automotive  
AEC-Q200

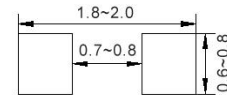
ABNQ00160808 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

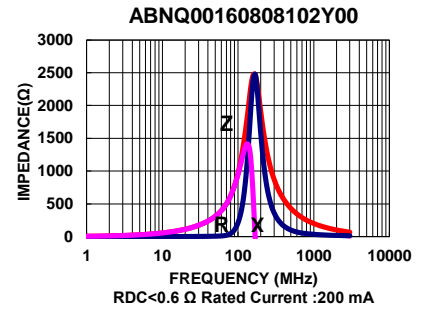
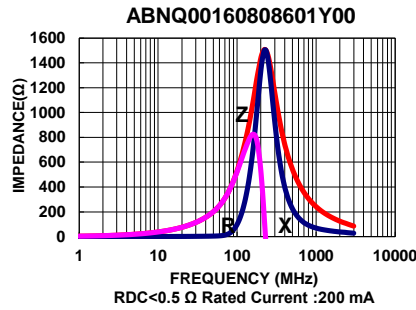
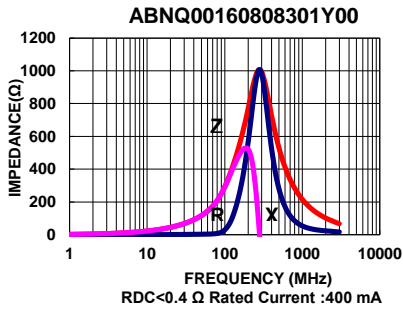
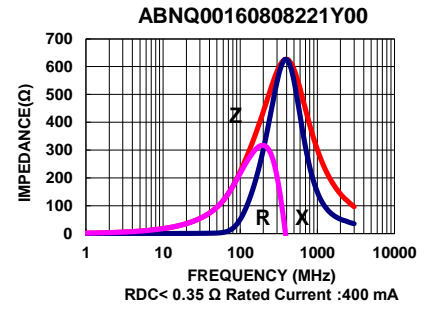
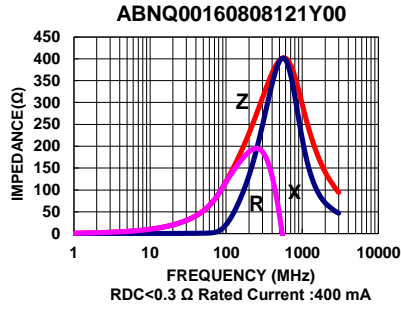
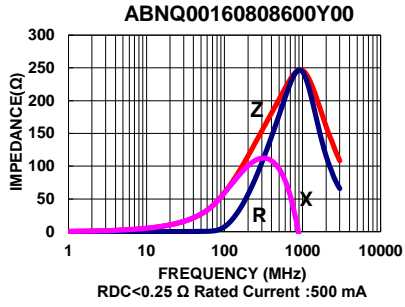
Part No.	Impedance ( $\Omega$ )	Test Freq.	RDC ( $\Omega$ )Max.	Rated Current (mA)Max.
ABNQ00160808600Y00	60	100 MHz,200 mV	0.25	500
ABNQ00160808121Y00	120	100 MHz,200 mV	0.30	400
ABNQ00160808221Y00	220	100 MHz,200 mV	0.35	400
ABNQ00160808301Y00	300	100 MHz,200 mV	0.40	400
ABNQ00160808601Y00	600	100 MHz,200 mV	0.50	200
ABNQ00160808102Y00	1000	100 MHz,200 mV	0.60	200

Note: When ordering, please specify tolerance code. Tolerance: Y= $\pm 25\%$

1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

ABNQ00160808 Type

Characteristics Graph

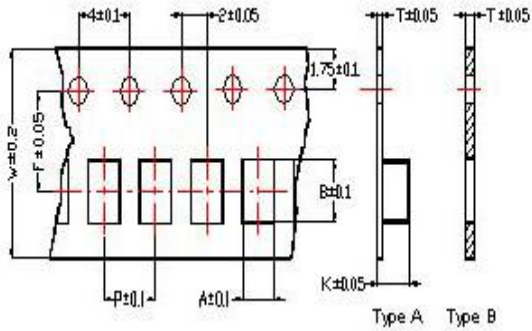


**Chip Bead ABNQ Series**

**Automotive  
AEC-Q200**

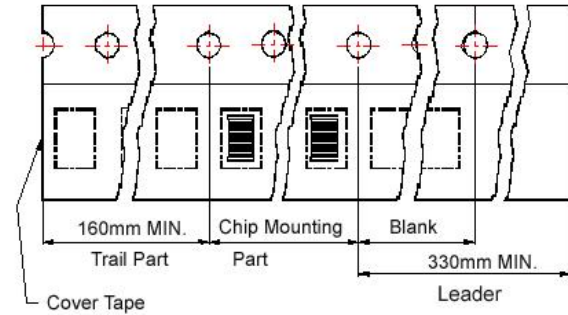
**■ Packaging**

**Tape Dimensions**

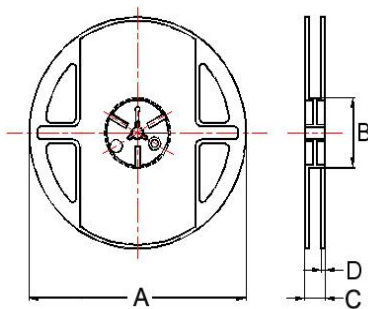


**Tape Material**

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
ABNQ00100505	0.62	1.12	0.60	8	2	3.5	-	B	178	60	12	2	10000
ABNQ00160808	1.05	1.85	0.95	8	4	3.5	-	B	178	60	12	2	4000

**Chip Bead ABFJ Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Noise  
Suppression

Shield

Multilayer

Ferrite

High speed  
Signal line

**Part Numbering**

A	BFJ	00	100505	601	Y	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance (Ω)	Tolerance	Internal Code
			100505 1.0x0.5x0.5	601 600 102 1000 182 1800	Y ±25%	

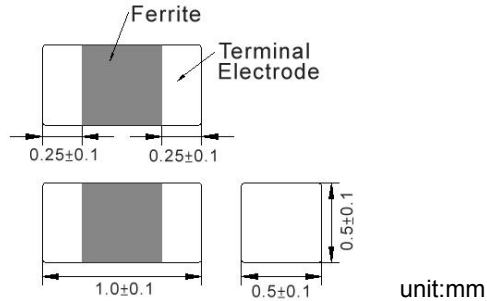
This specification applies to Multilayer Chip ferrite Bead for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Bead ABFJ Series

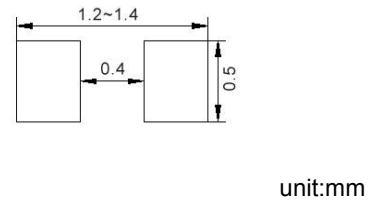
Automotive  
AEC-Q200

ABFJ00100505 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Impedance (Ω)±25%	Impedance (Ω)±40%	Test Freq. (MHz)	RDC (Ω)Max.	Rated Current (mA)Max.
ABFJ00100505601Y00	600	1400	100/1000	0.85	300
ABFJ00100505102Y00	1000	2000	100/1000	1.25	250
ABFJ00100505182Y00	1800	2700	100/1000	2.20	200

Note: When ordering, please specify tolerance code. Tolerance: Y=±25%

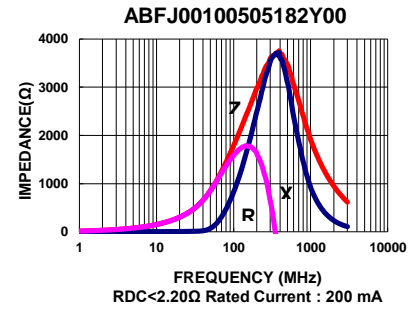
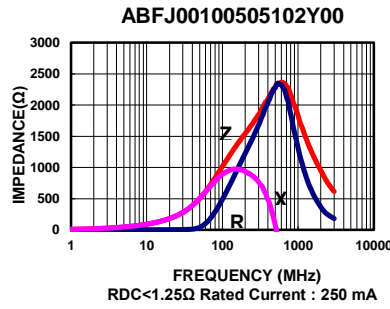
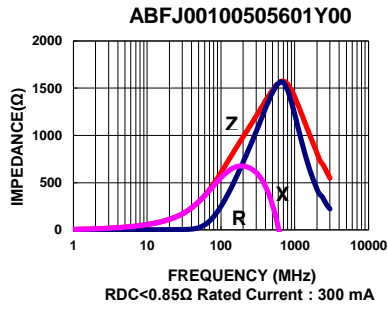
1. Operating temperature range - 40°C ~ 125°C
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. Measure Equipment:  
Z: HP4291A  
RDC: HP4338B or CHEN HWA 502

Chip Bead ABFJ Series

Automotive  
AEC-Q200

ABFJ00100505 Type

■ Characteristics Graph



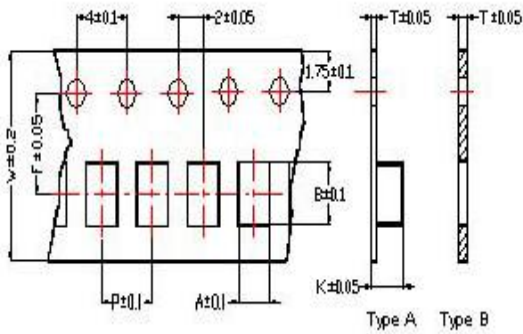


**Chip Bead ABFJ Series**

**Automotive  
AEC-Q200**

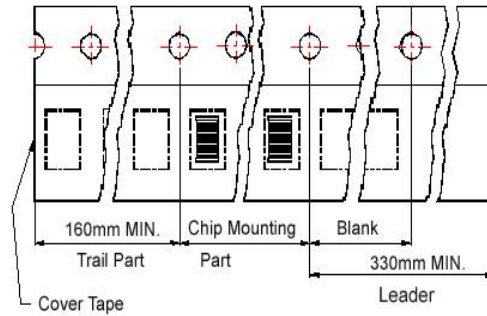
**■ Packaging**

**Tape Dimensions**

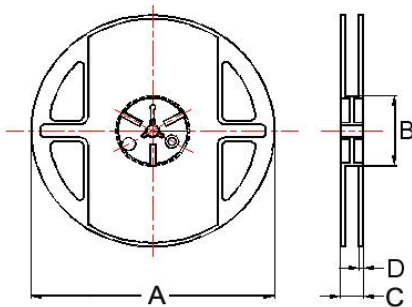


**Tape Material**

Carrier Tape: Polycarbonate (Tape A)  
Carrier Tape: Paper (Tape B)  
Cover Tape: Polystyrene



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	Tape	A	B	C	D	
ABFJ00100505	0.62	1.12	0.60	8	2	3.5	-	B	178	60	12	2	10000

## Common Mode Choke AWCU Series

**Automotive**  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



### Part Numbering

A	WCU	00	201212	300	M	02
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance (Ω)	Tolerance	Internal Code
			2.05x1.25x1.2	300 30	M ±20%	02 USB2.0
			3.2x1.6x1.9	121 120	Y ±25%	03 USB3.0

A	WCU	00	453226	513	T	M2
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			4.5x3.2x2.6	513 51	T ±30%	M2
				104 100		T2

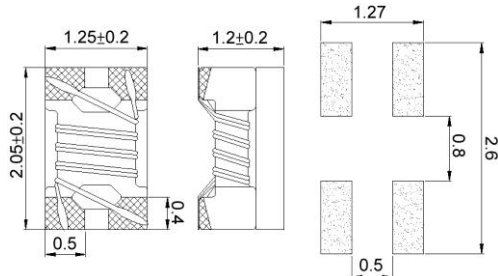
This specification applies to Common Mode Choke for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

**Common Mode Choke AWCU Series**

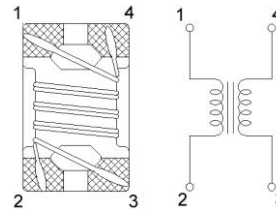
**Automotive  
AEC-Q200**

**AWCU00201212-02 Type**

**■ Dimensions / Recommended Land Pattern**



**■ NO Polarity Equivalent circuit**



unit:mm

**■ Electrical Characteristics**

Part No.	Impedance (Ω)	Test Freq. (MHz)	RDC (Ω)Max.	IDC (mA)	Rated Voltage (Vdc)Max.	Withstanding Voltage (Vdc)	Insulation Resistance (MΩ)Min.	Tolerance (±%)
AWCU00201212300□02	30	100	0.2	450	50	125	10	20
AWCU00201212670□02	67	100	0.25	400	50	125	10	20
AWCU00201212750□02	75	100	0.3	360	50	125	10	20
AWCU00201212900□02	90	100	0.35	330	50	125	10	20
AWCU00201212121□02	120	100	0.3	400	50	125	10	20
AWCU00201212161□02	160	100	0.35	350	50	125	10	20
AWCU00201212181□02	180	100	0.35	330	50	125	10	20
AWCU00201212201□02	200	100	0.35	330	50	125	10	20
AWCU00201212221□02	220	100	0.35	310	50	125	10	20
AWCU00201212261□02	260	100	0.4	300	50	125	10	20
AWCU00201212301□02	300	100	0.4	290	50	125	10	20
AWCU00201212361□02	360	100	0.45	280	50	125	10	20
AWCU00201212371□02	370	100	0.45	280	50	125	10	20
AWCU00201212501□02	500	100	0.55	170	50	125	10	20
AWCU00201212671□02	670	100	0.6	140	50	125	10	20
AWCU00201212901□02	900	100	0.6	80	50	125	10	20

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

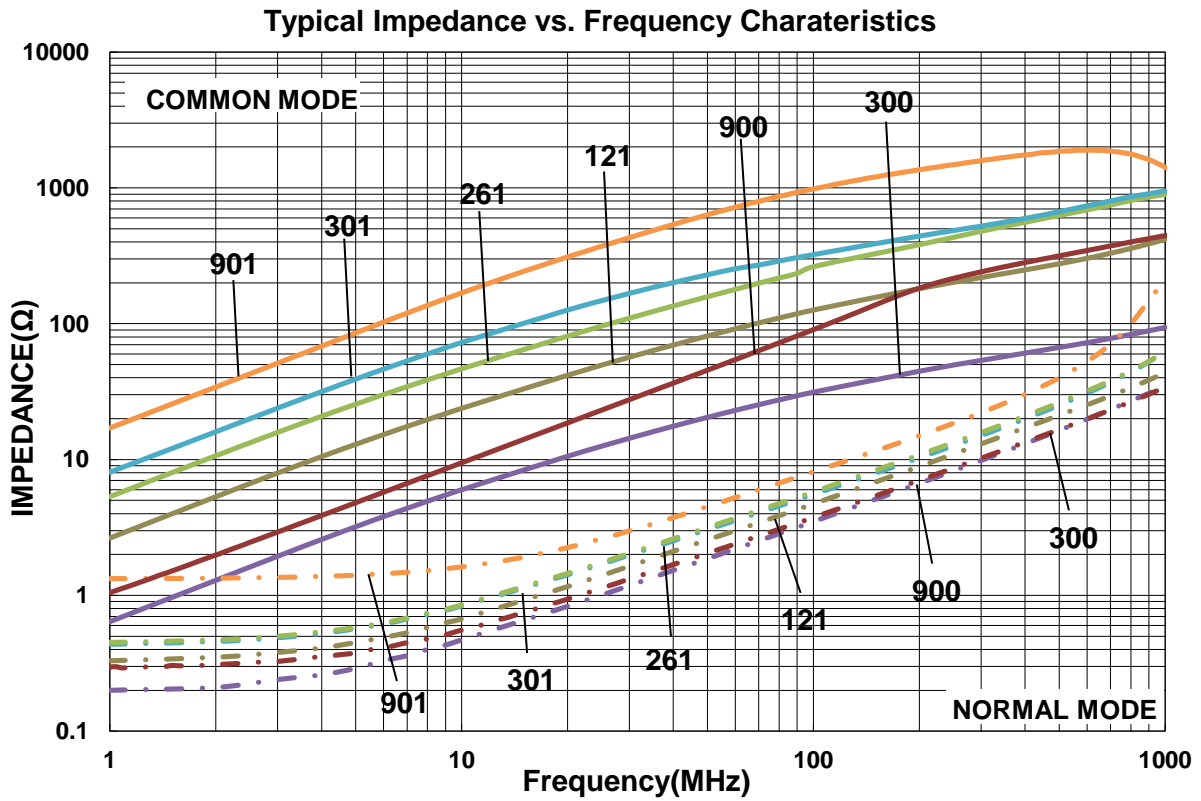
- Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)
- RDC: SINGLE WIRE TEST VALUE
- IDC for Inductance drop 10% from its value without current.
- Measure Equipment:  
Z: Agilent HP4287A+Agilent 16197A  
RDC: Chroma 16502 (Single Wire Test Value)  
IDC: HP4284A+HP42841A/HP4285A+HP42841A

Common Mode Choke AWCU Series

Automotive  
AEC-Q200

AWCU00201212-02 Type

■ Characteristics Graph

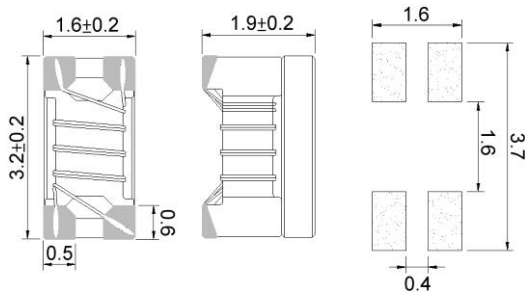


**Common Mode Choke AWCU Series**

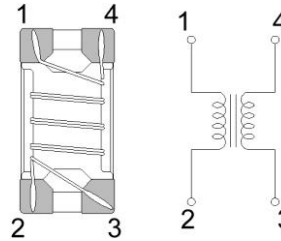
**Automotive  
AEC-Q200**

**AWCU00321619-02 Type**

**■ Dimensions / Recommended Land Pattern**



**■ NO Polarity Equivalent circuit**



unit:mm

**■ Electrical Characteristics**

Part No.	Impedance (Ω)	Test Freq. (MHz)	RDC (Ω)Max.	IDC (mA)	Rated Voltage (Vdc)Max.	Withstanding Voltage (Vdc)	Insulation Resistance (MΩ)Min.	Tolerance (±%)
AWCU0032161990□02	90	100	0.3	370	50	125	10	20
AWCU00321619121□02	120	100	0.3	370	50	125	10	20
AWCU00321619161□02	160	100	0.4	340	50	125	10	20
AWCU00321619221□02	220	100	0.4	320	50	125	10	20
AWCU00321619261□02	260	100	0.5	310	50	125	10	20
AWCU00321619601□02	600	100	0.8	260	50	125	10	20
AWCU00321619102□02	1000	100	1	230	50	125	10	20
AWCU00321619222□02	2200	100	1.2	200	50	125	10	20

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)

2. RDC: SINGLE WIRE TEST VALUE

3. IDC for Inductance drop 10% from its value without current.

4. Measure Equipment:

Z: Agilent HP4287A+Agilent 16197A

RDC: Chroma 16502 (Single Wire Test Value)

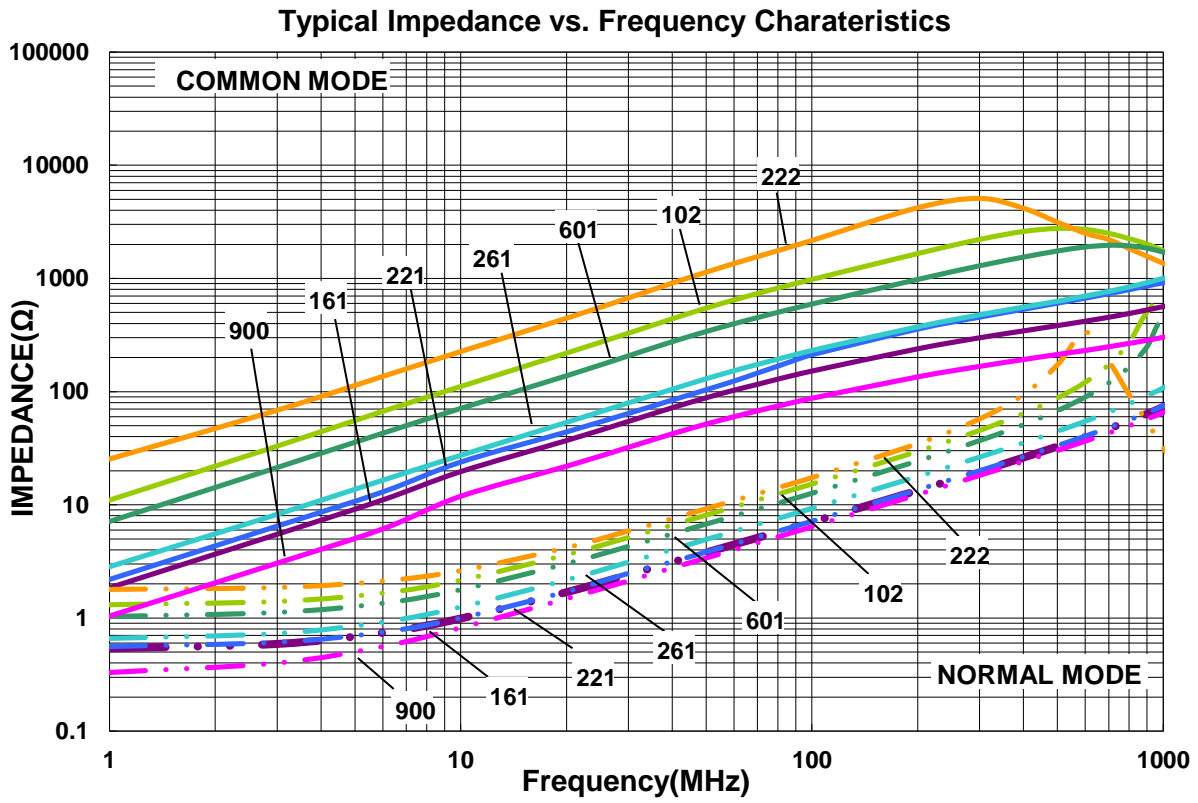
IDC: HP4284A+HP42841A/HP4285A+HP42841A

**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**AWCU00321619-02 Type**

**Characteristics Graph**



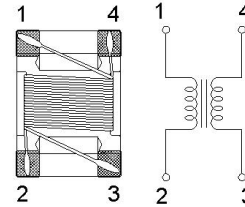
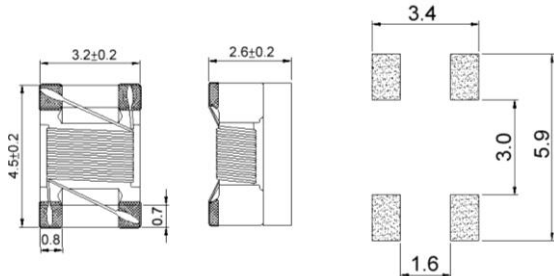
**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**AWCU00453226-T2 Type**

**■ Dimensions / Recommended Land Patte**

**■ NO Polarity Equivalent circuit**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	Impedance (Ω)		Test Freq. (MHz)	RDC (Ω) Max.	Irms (mA) Max.	Rated Voltage (Vdc)Max.	Withstanding Voltage (Vdc)	Insulation Resistance (MΩ)Min.	Tol. (±%)
			Min.	Typ.							
AWCU00453226113□T2	11	100kHz	300	600	10	0.6	250	50	125	10	30
AWCU00453226223□T2	22	100kHz	500	1200	10	1	200	50	125	10	30
AWCU00453226513□T2	51	100kHz	1000	2800	10	1	200	50	125	10	30
AWCU00453226104□T2	100	100kHz	2000	5800	10	2	150	50	125	10	30

**Note: When ordering, please specify tolerance code. Tolerance: T=±30%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- RDC: SINGLE WIRE TEST VALUE
- Irms for 40°C rise above 25°C ambient.
- Measure Equipment:  
 Z: HP4286A / HP4287A / AgilentE4991A  
 L: HP4284A+HP42841A/HP4285A+HP42841A  
 RDC: CHROMA MILLIOM METER MODE 16502  
 Irms: HP4284A+HP42841A/HP4285A+HP42841A  
 Insulation Resistance: HP4339B

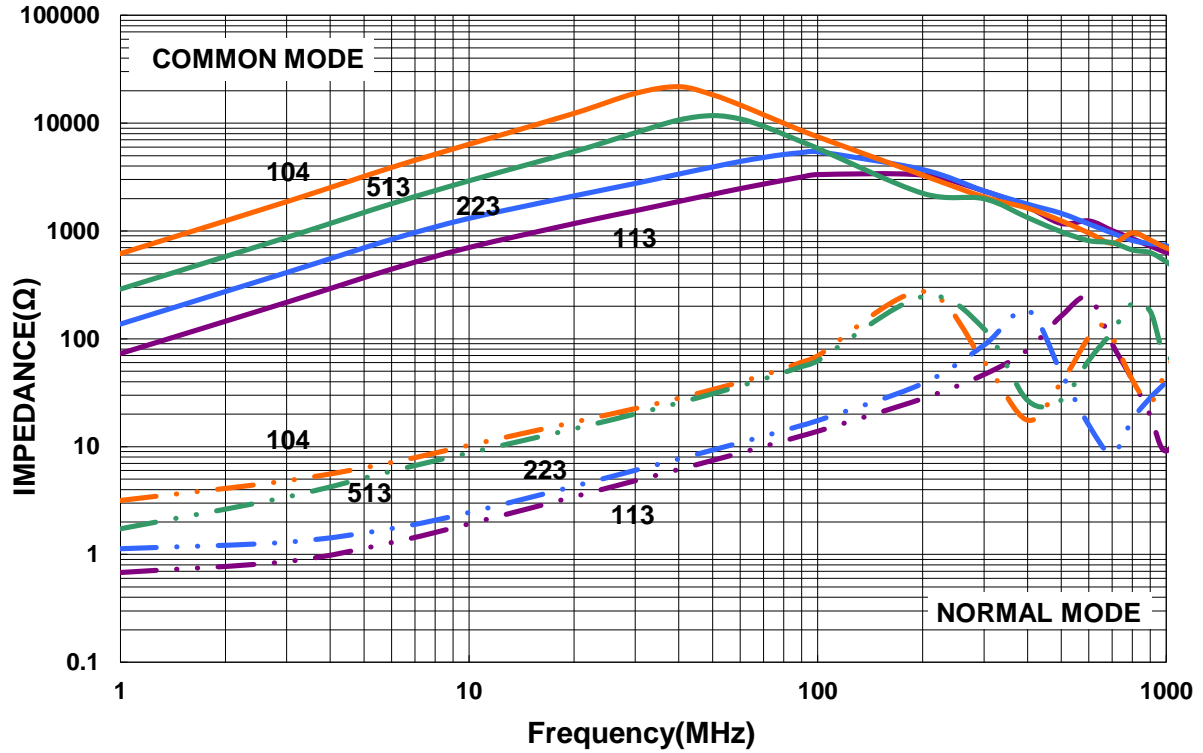
**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**AWCU00453226-T2 Type**

**Characteristics Graph**

**Typical Impedance vs. Frequency Characteristics**



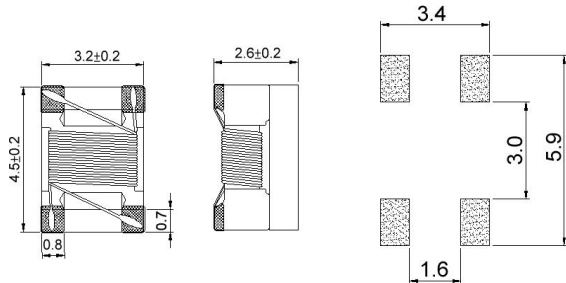


**Common Mode Choke AWCU Series**

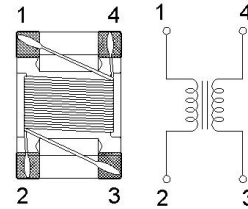
**Automotive  
AEC-Q200**

**AWCU00453226-M2 Type**

**■ Dimensions / Recommended Land Pattern**



**■ NO Polarity Equivalent circuit**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Irms (mA)Max.	Rated Voltage (Vdc)Max.	Withstanding Voltage (Vdc)	Insulation Resistance (MΩ)Min.	Tolerance (±%)
AWCU00453226113□M2	11	100kHz,100mV	0.5	360	50	125	10	30
AWCU00453226223□M2	22	100kHz,100mV	0.6	310	50	125	10	30
AWCU00453226513□M2	51	1MHz,200mV	1	230	50	125	10	30
AWCU00453226104□M2	100	1MHz,200mV	2	200	50	125	10	30

**Note: When ordering, please specify tolerance code. Tolerance: T=±30%**

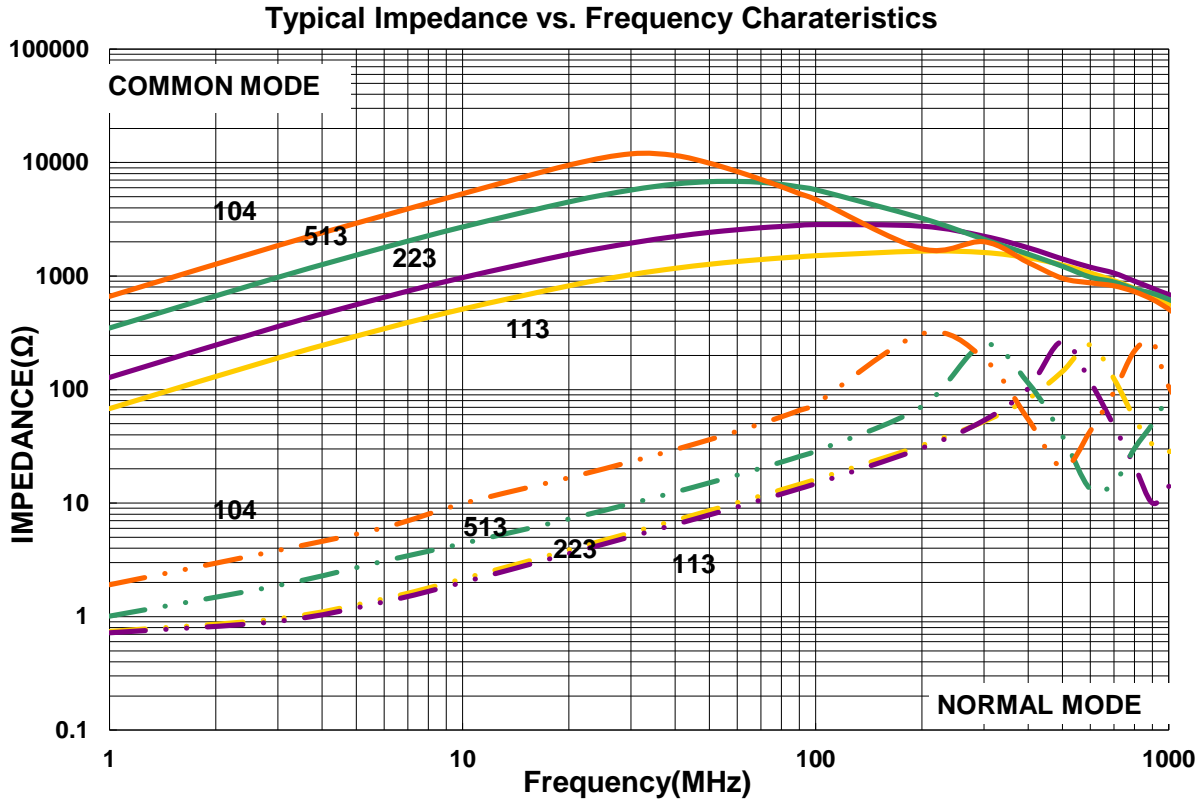
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. RDC: SINGLE WIRE TEST VALUE
3. I rms for 40°C rise above 25°C ambient.
4. Measure Equipment:  
 L: HP4284A+HP42841A/HP4285A+HP42841A  
 RDC: CHROMA MILLIOM METER MODE 16502  
 I rms: HP4284A+HP42841A/HP4285A+HP42841A  
 Insulation Resistance: HP4339B

**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**AWCU00453226-M2 Type**

**Characteristics Graph**

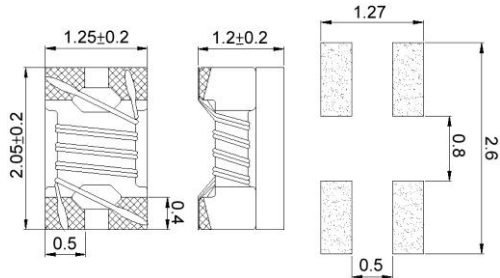


**Common Mode Choke AWCU Series**

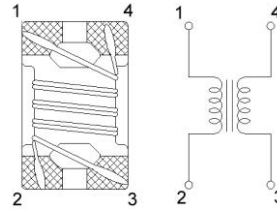
**Automotive  
AEC-Q200**

**AWCU00201212-03 Type**

**■ Dimensions / Recommended Land Pattern**



**■ NO Polarity Equivalent circuit**



unit:mm

**■ Electrical Characteristics**

Part No.	Impedance (Ω)	Test Freq. (MHz)	RDC (Ω)Max.	IDC (mA)	Rated Voltage (Vdc)Max.	Withstanding Voltage (Vdc)	Insulation Resistance (MΩ)Min.	Tolerance (±%)
AWCU00201212500□03	50	100	0.2	500	50	125	10	25
AWCU00201212670□03	67	100	0.3	500	50	125	10	25
AWCU00201212900□03	90	100	0.3	500	50	125	10	25
AWCU00201212121□03	120	100	0.35	330	50	125	10	25

**Note: When ordering, please specify tolerance code. Tolerance: Y=±25%**

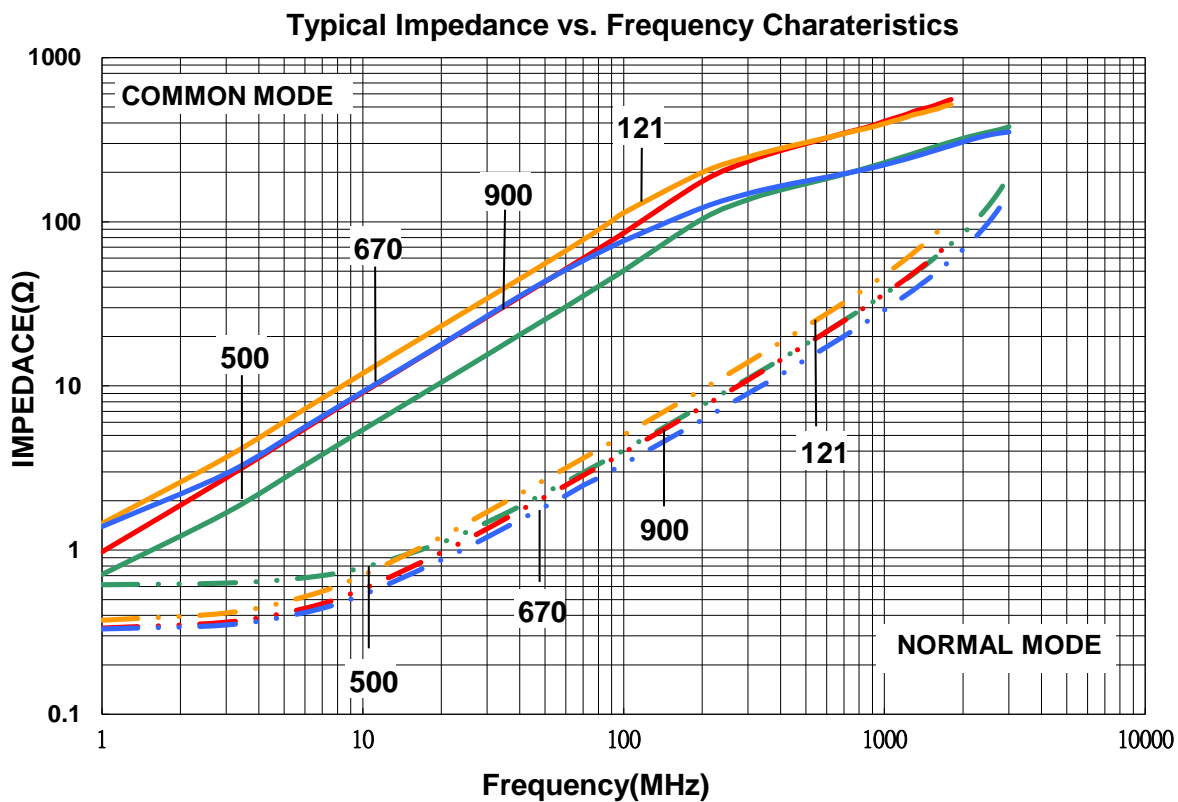
- Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)
- RDC: SINGLE WIRE TEST VALUE
- IDC for Inductance drop 10% from its value without current.
- Measure Equipment:  
 Z: Agilent HP4287A+Agilent 16197A  
 RDC: Chroma 16502 (Single Wire Test Value)  
 IDC: HP4284A+HP42841A/HP4285A+HP42841A

**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**AWCU00201212-03 Type**

**Characteristics Graph**

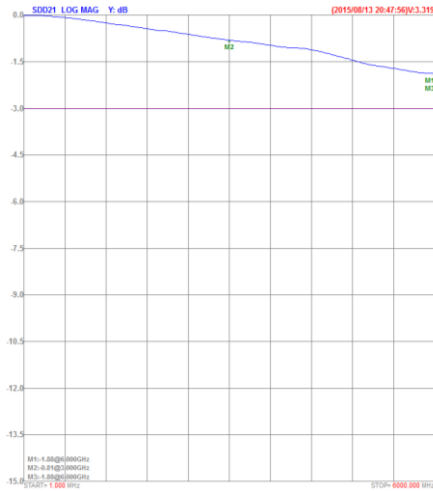


**Common Mode Choke AWCU Series**

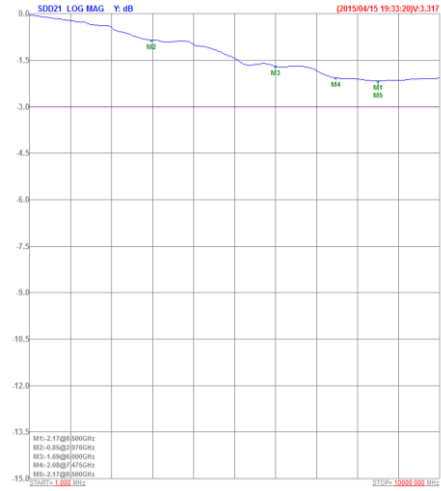
**Automotive  
AEC-Q200**

**AWCU00201212500Y03**

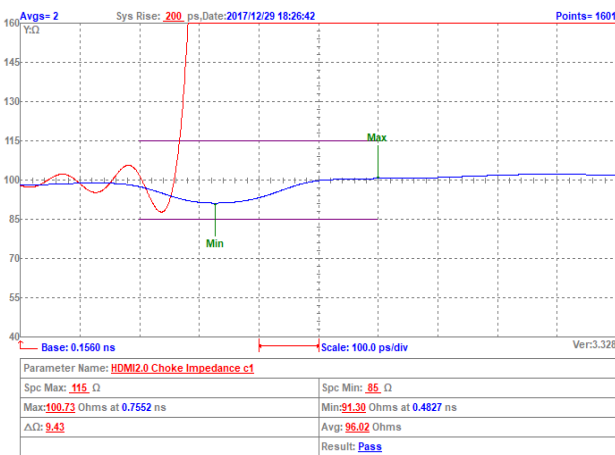
**Insertion Loss For HDMI2.0 Testing:**



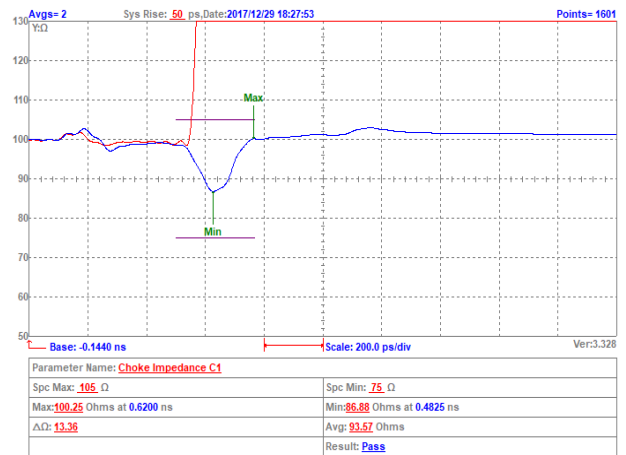
**Insertion Loss For USB3.0 Testing:**



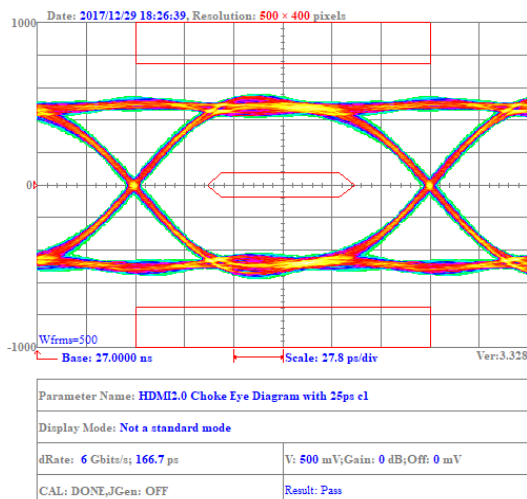
**TDR For HDMI2.0 Testing:**



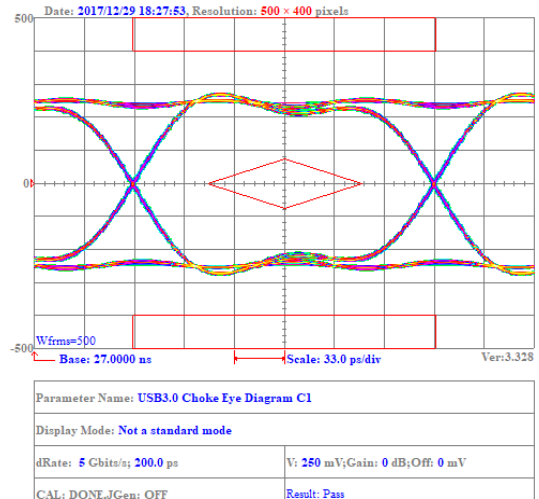
**TDR For USB3.0 Testing:**



**Eye Diagram For HDMI2.0 Testing:**



**Eye Diagram For USB3.0 Testing:**



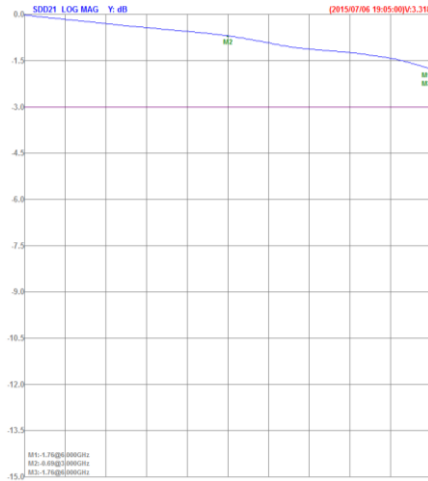
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Common Mode Choke AWCU Series

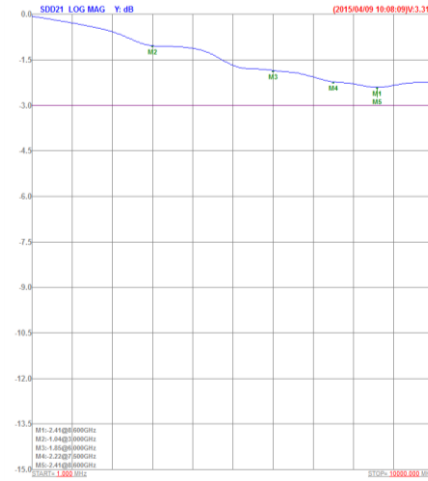
Automotive  
AEC-Q200

AWCU00201212670Y03

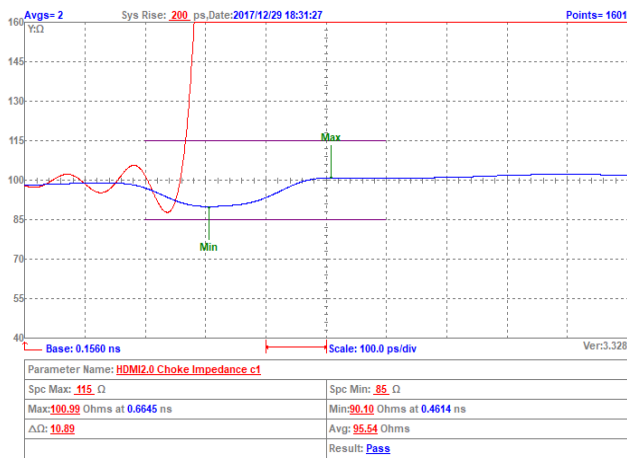
■ Insertion Loss For HDMI2.0 Testing:



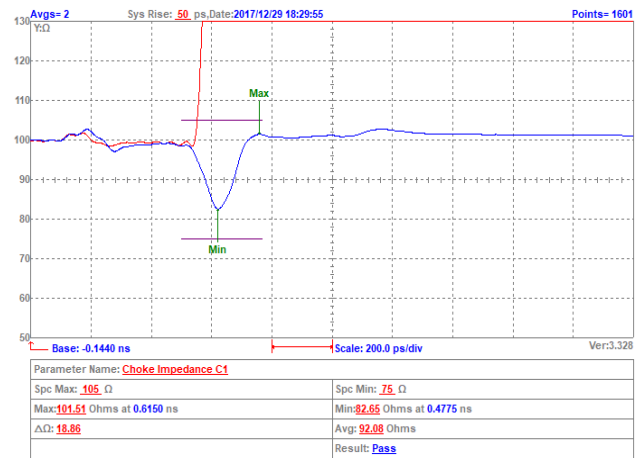
■ Insertion Loss For USB3.0 Testing:



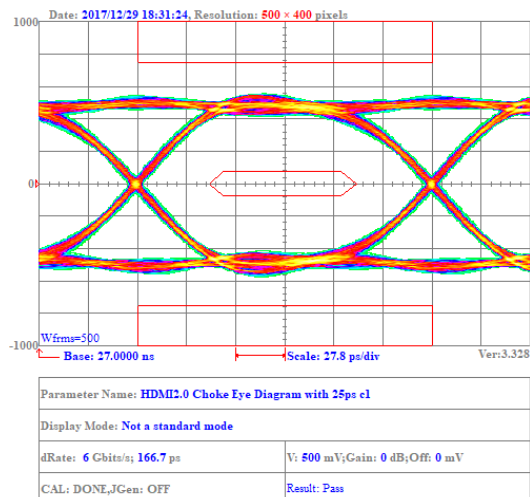
■ TDR For HDMI2.0 Testing:



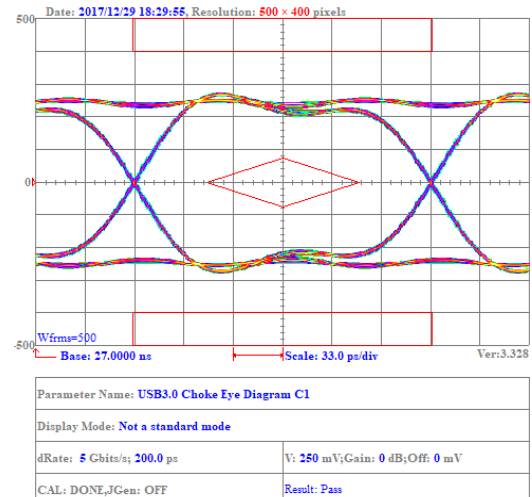
■ TDR For USB3.0 Testing:



■ Eye Diagram For HDMI2.0 Testing:



■ Eye Diagram For USB3.0 Testing:



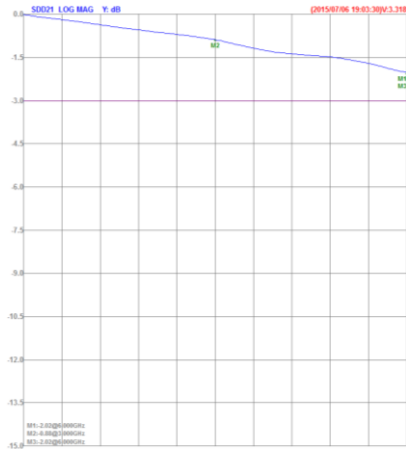
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Common Mode Choke AWCU Series

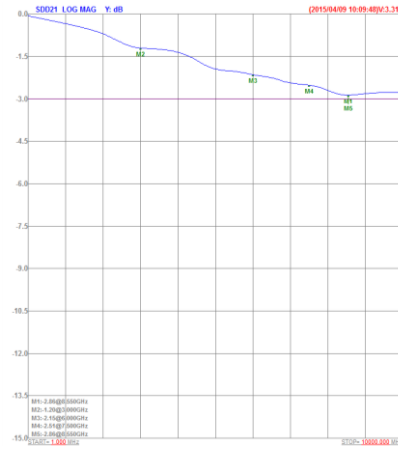
Automotive  
AEC-Q200

AWCU00201212900Y03

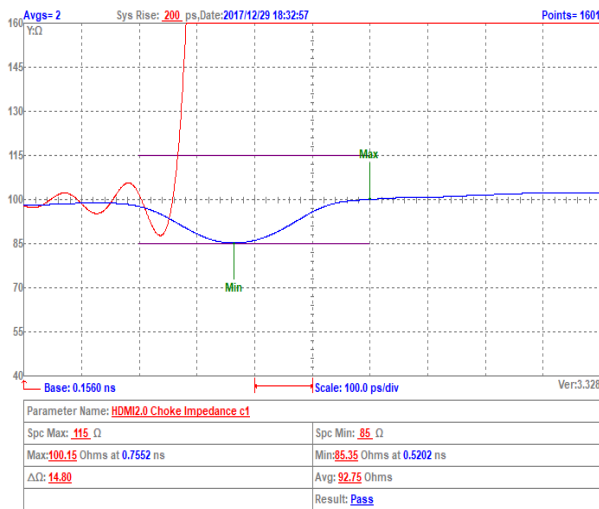
Insertion Loss For HDMI2.0 Testing:



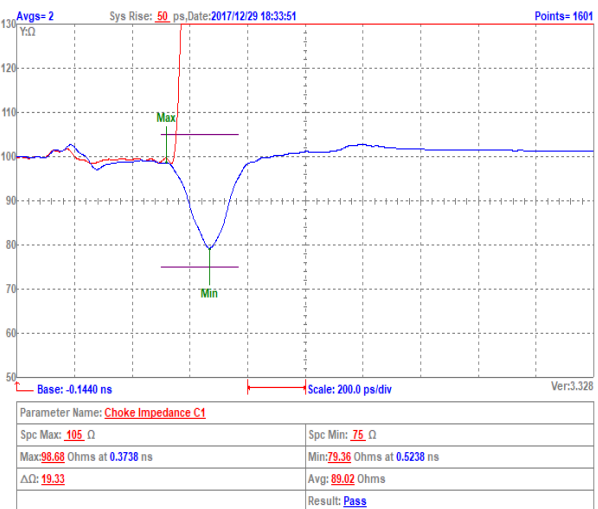
Insertion Loss For USB3.0 Testing:



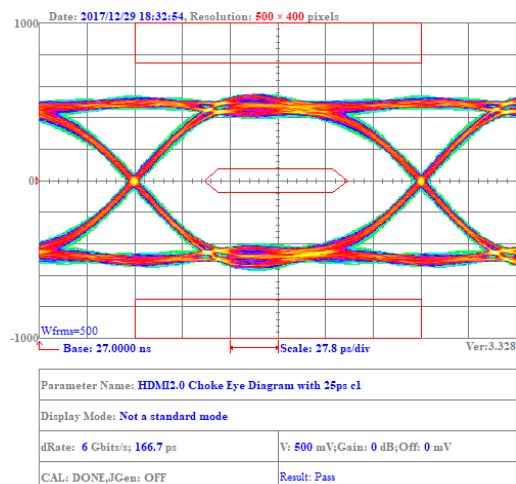
TDR For HDMI2.0 Testing:



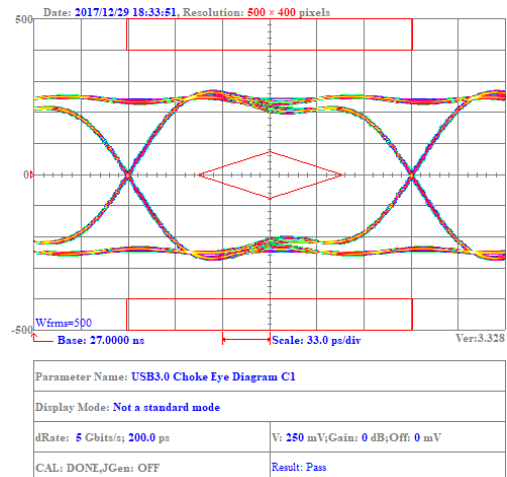
TDR For USB3.0 Testing:



Eye Diagram For HDMI2.0 Testing:



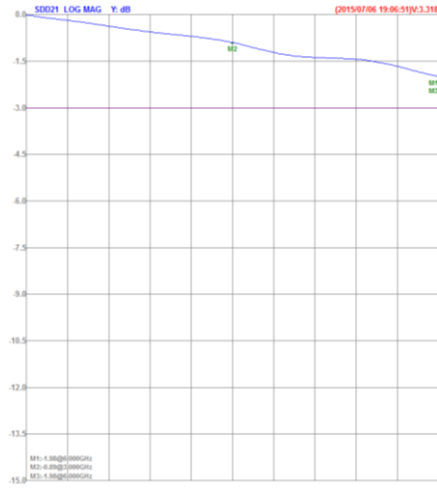
Eye Diagram For USB3.0 Testing:



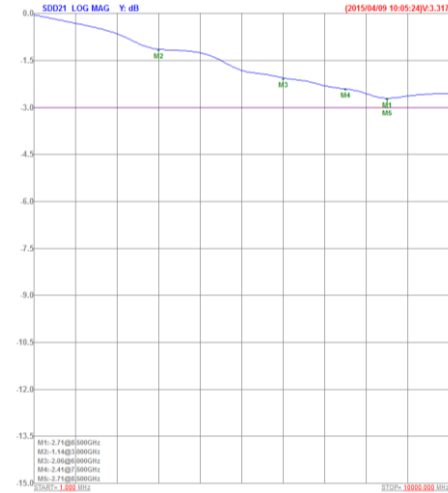
**Common Mode Choke AWCU Series** **Automotive AEC-Q200**

**AWCU00201212121Y03**

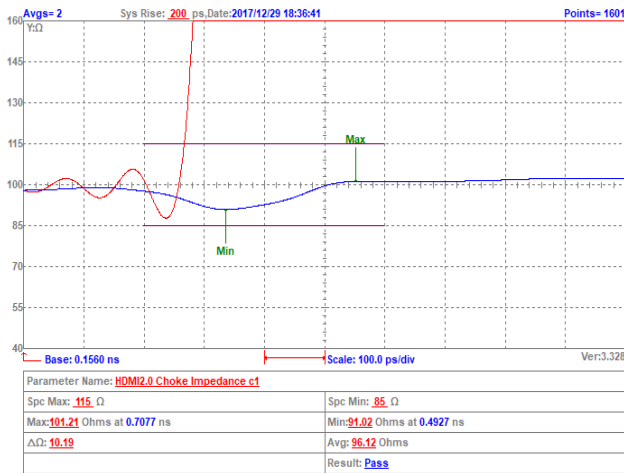
**Insertion Loss For HDMI2.0 Testing:**



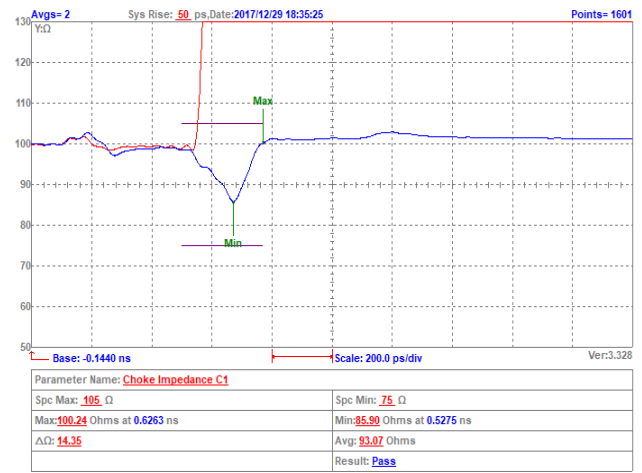
**Insertion Loss For USB3.0 Testing:**



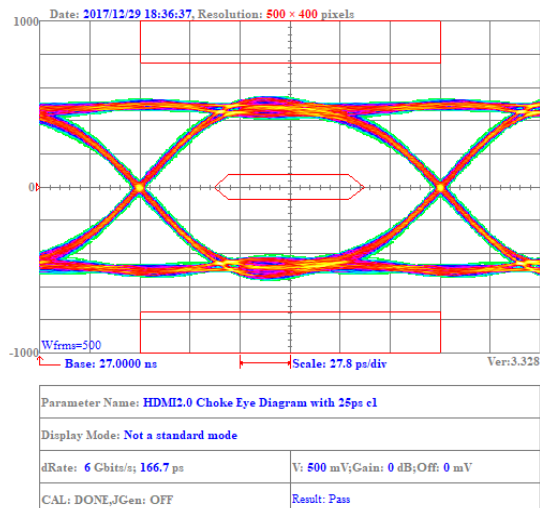
**TDR For HDMI2.0 Testing:**



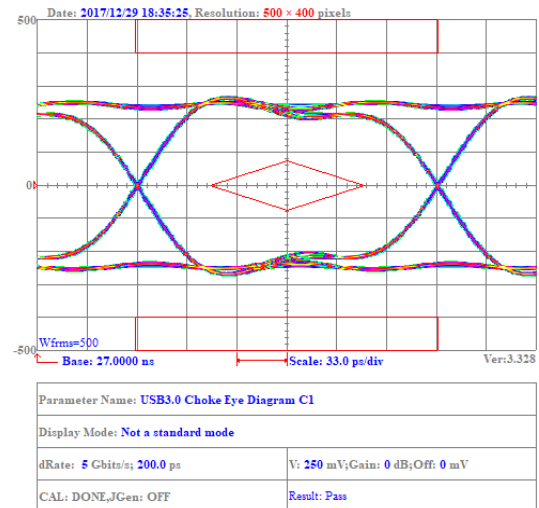
**TDR For USB3.0 Testing:**



**Eye Diagram For HDMI2.0 Testing:**



**Eye Diagram For USB3.0 Testing:**



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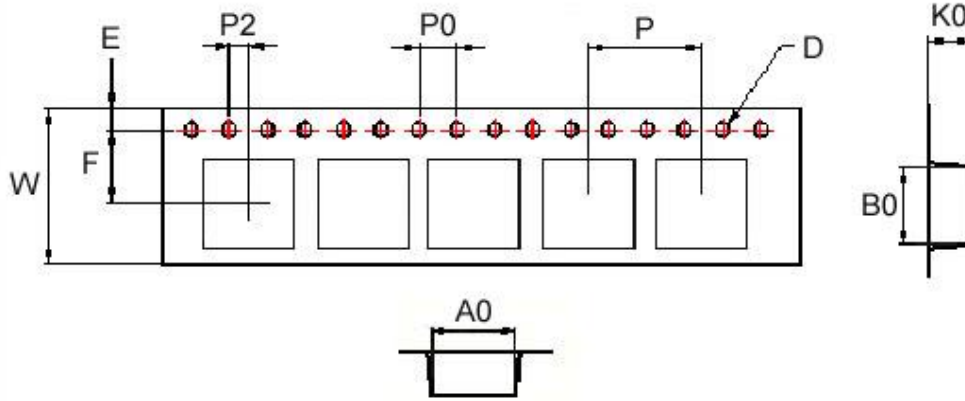


**Common Mode Choke AWCU Series**

**Automotive  
AEC-Q200**

**■ Packaging**

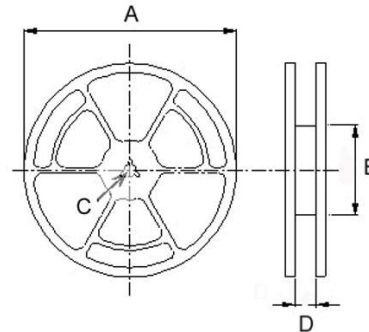
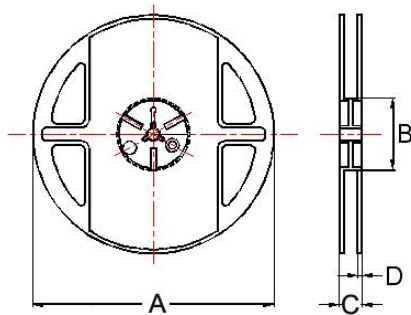
Tape Dimensions



Reel Dimensions

Figure 1

Figure 2



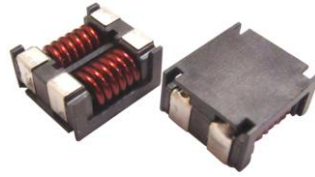
Dimensions in mm

TYPE	Tape Dimensions											Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	F	W	P	P0	P2	Fig.	A	B	C	D	
AWCU00201212	1.5	2.25	1.45	1.5	1.75	3.5	8	4	2	2	1	178	60	12	1.5	2000
AWCU00321619	1.76	3.47	2.05	1.5	1.75	3.5	8	4	2	2	1	178	60	12	1.5	2000
AWCU00453226	3.6	4.9	2.7	1.5	1.75	5.5	12	8	4	2	2	330	100	13	13.4	2500

**Common Mode Choke APPC Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Noise  
Suppression

Wire  
Wound

Ferrite

General  
Signal line

**Part Numbering**

A	PPC	00	070635	501	X	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Impedance ( $\Omega$ ) Min	Tolerance	Internal Code
			070635 7.0x6.0x3.5	501 500		
			090745 9.0x7.0x4.5			
			121160 12.3x11.3x6			

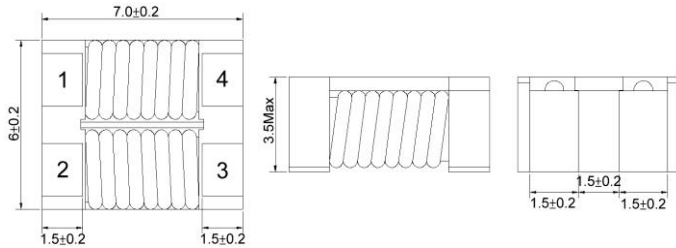
This specification applies to Common Mode Choke for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Common Mode Choke APPC Series

Automotive  
AEC-Q200

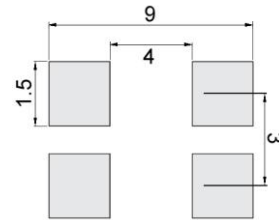
APPC00070635 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

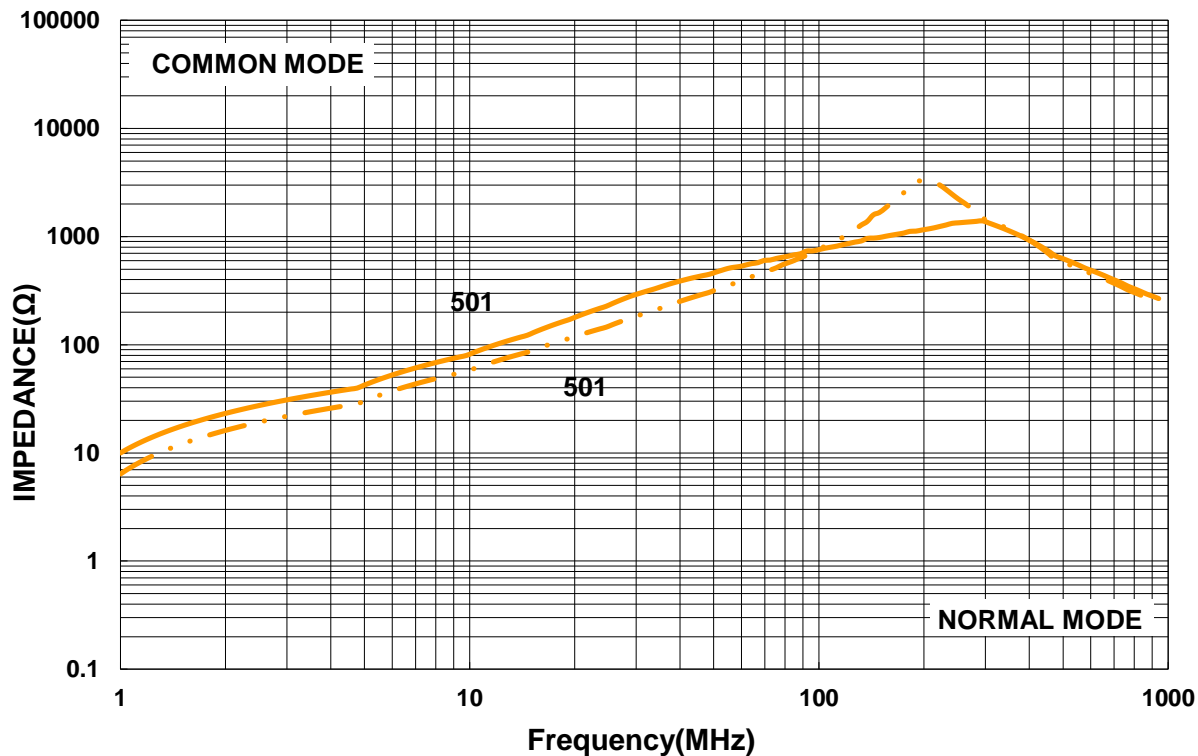
Part No.	Impedance (Ω)	Test Freq.	RDC (mΩ)Max.	I <sub>rms</sub> (mA)Max.
APPC00070635501X00	500	100 MHz,0.2 V	15	4000

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for 40°C rise above 25°C ambient.
- Z:1,2-4,3 Common mode
- The actual use current is suggested not to be out of I<sub>sat</sub>\*80%
- Measure Equipment:  
Z: HP4287A  
RDC: CHROMA MILLIOM METER MODE 16502  
I<sub>rms</sub>: HP4284A+HP42841A

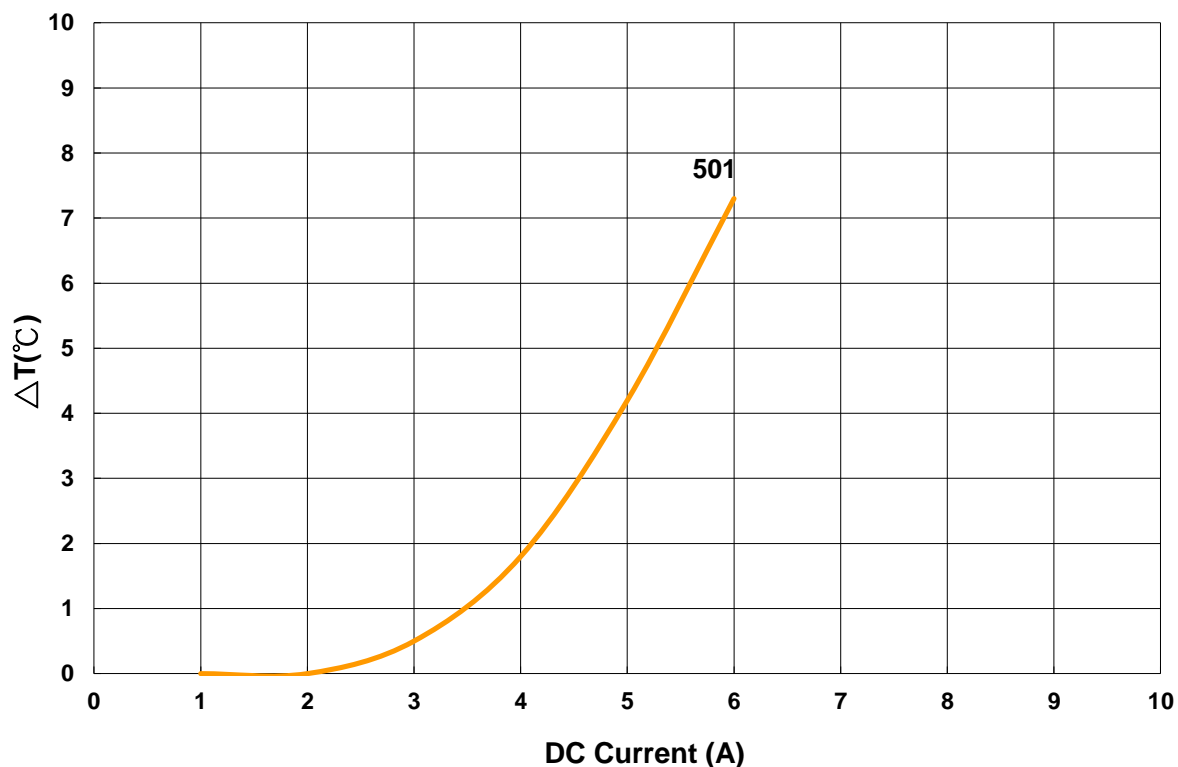
APPC00070635 Type

■ Characteristics Graph

Typical Impedance vs. Frequency Characteristics



Temperature Change vs. DC Current

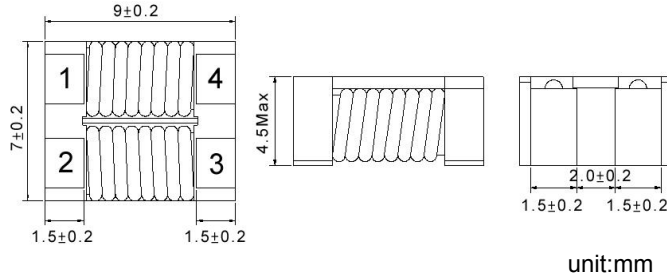


Common Mode Choke APPC Series

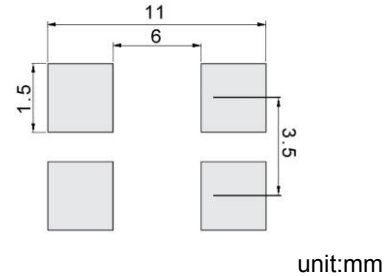
Automotive  
AEC-Q200

APPC00090745 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Impedance (Ω)	Test Freq.	RDC (mΩ)Max.	I <sub>rms</sub> (mA)Max.
APPC00090745501X00	500	100 MHz, 0.2 V	10	5000

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for 40°C rise above 25°C ambient.
- Z:1,2-4,3 Common mode
- The actual use current is suggested not to be out of I<sub>sat</sub>\*80%
- Measure Equipment:  
Z: HP4287A  
RDC: CHROMA MILLIOM METER MODE 16502  
I<sub>rms</sub>: HP4284A+HP42841A

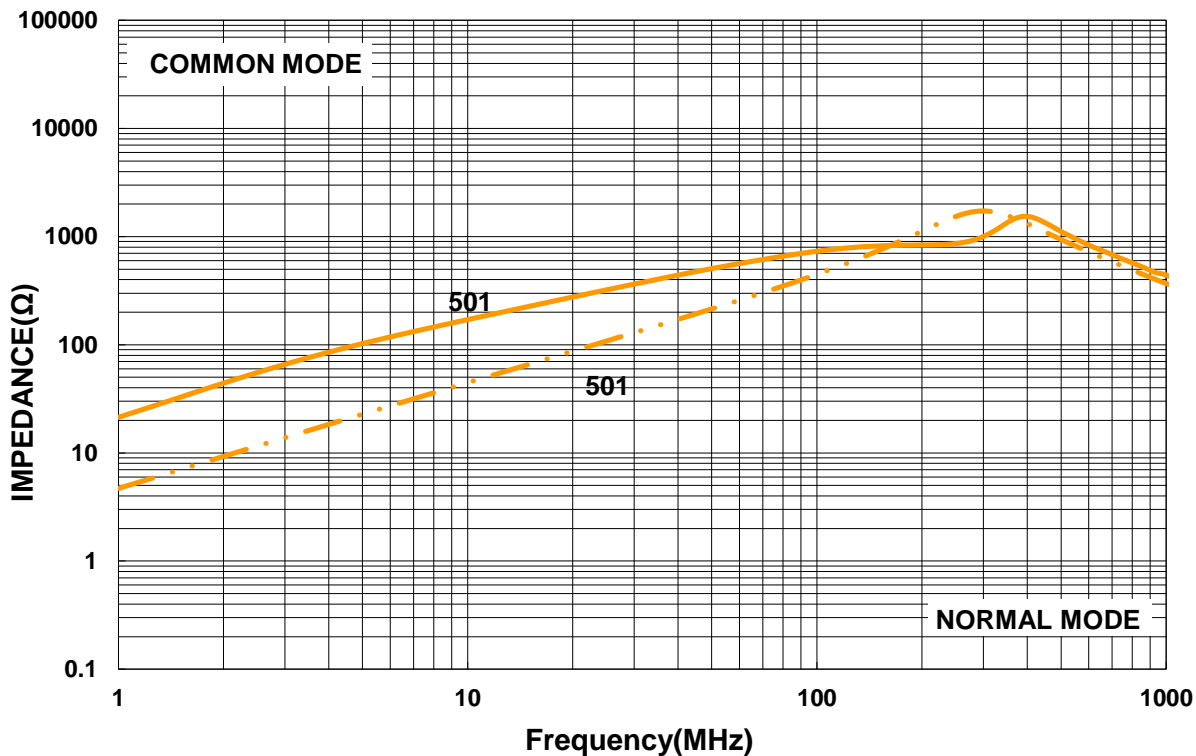
**Common Mode Choke APPC Series**

**Automotive  
AEC-Q200**

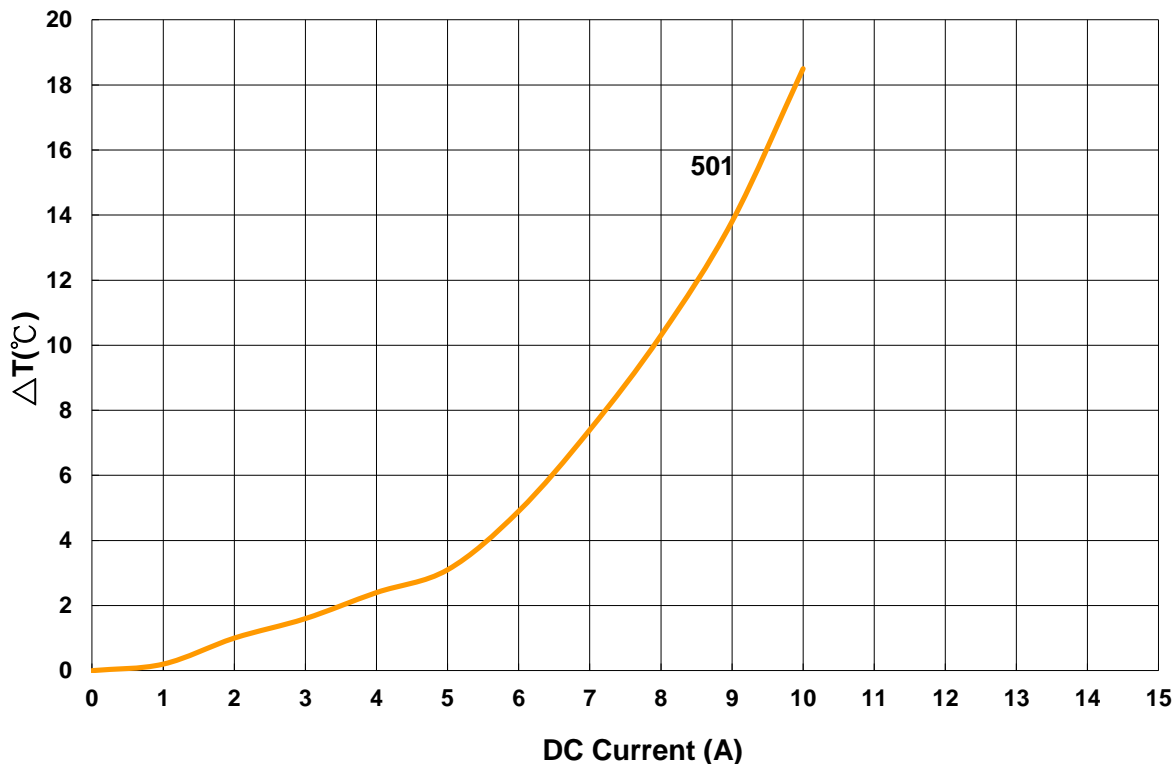
**APPC00090745 Type**

**Characteristics Graph**

**Typical Impedance vs. Frequency Charateristics**



**Temperature Change vs. DC Current**

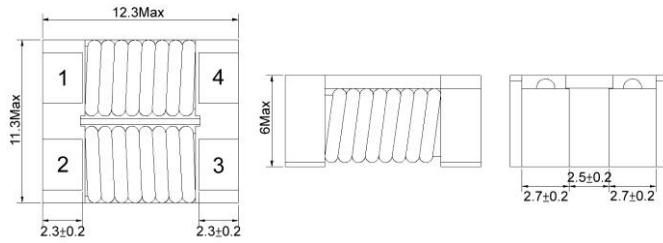


**Common Mode Choke APPC Series**

**Automotive  
AEC-Q200**

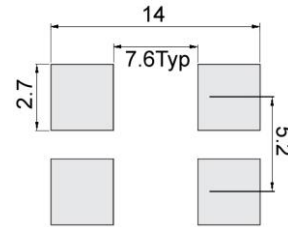
**APPC00121160 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

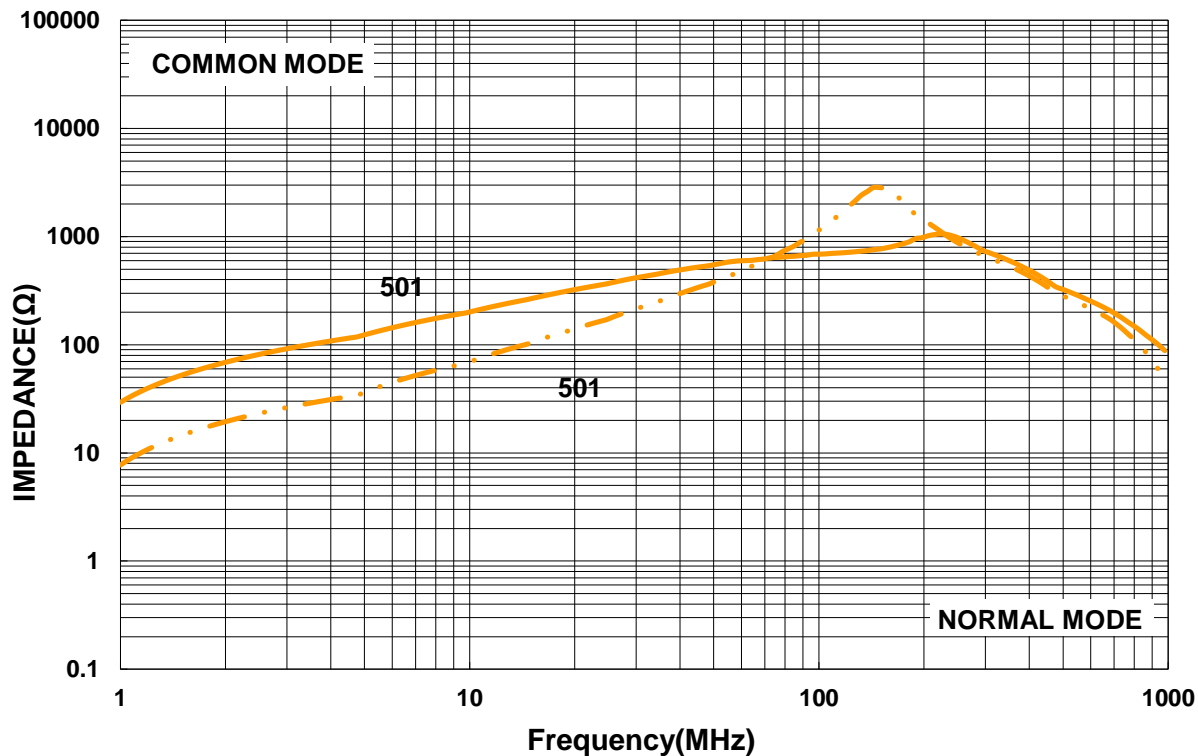
Part No.	Impedance (Ω)	Test Freq.	RDC (mΩ)Max.	I <sub>rms</sub> (mA)Max.
APPC00121160501X00	500	100 MHz,0.2 V	5.8	8000

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for 40°C rise above 25°C ambient.
- Z:1,2-4,3 Common mode
- The actual use current is suggested not to be out of I<sub>sat</sub>\*80%
- Measure Equipment:  
Z: HP4287A  
RDC: CHROMA MILLIOM METER MODE 16502  
I<sub>rms</sub>: HP4284A+HP42841A

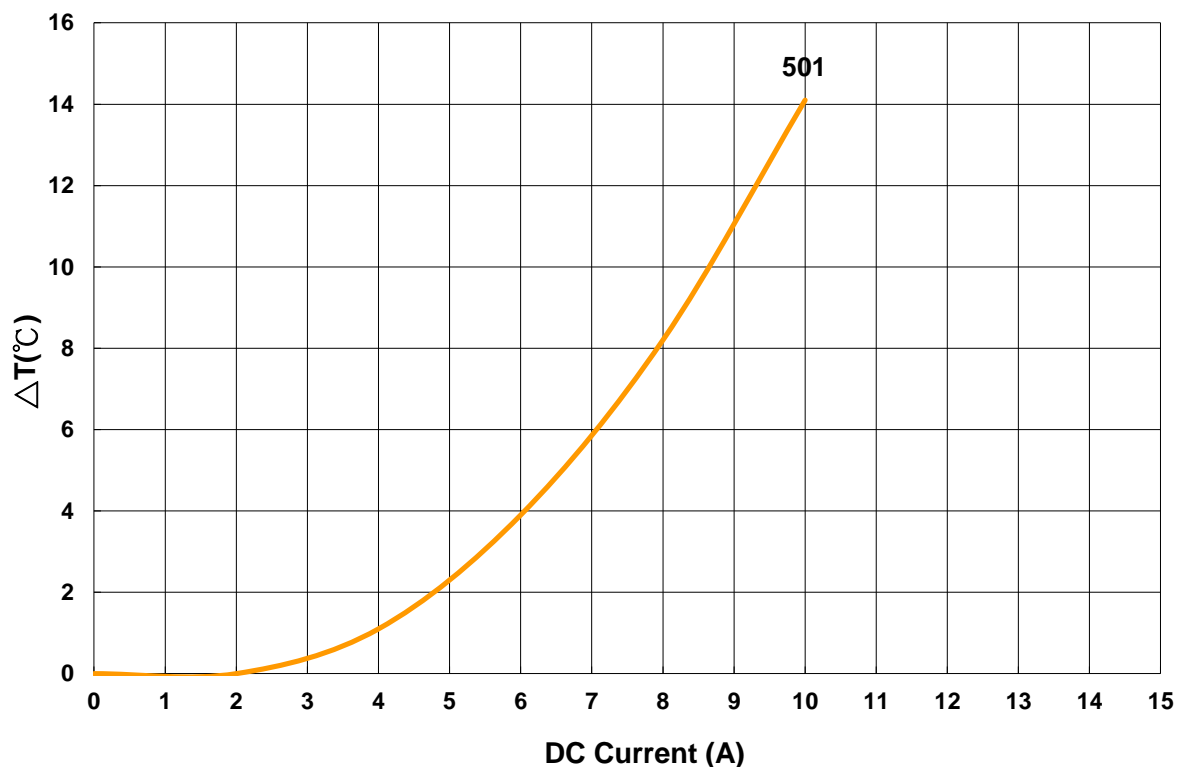
APPC00121160 Type

■ Characteristics Graph

Typical Impedance vs. Frequency Characteristics



Temperature Change vs. DC Current



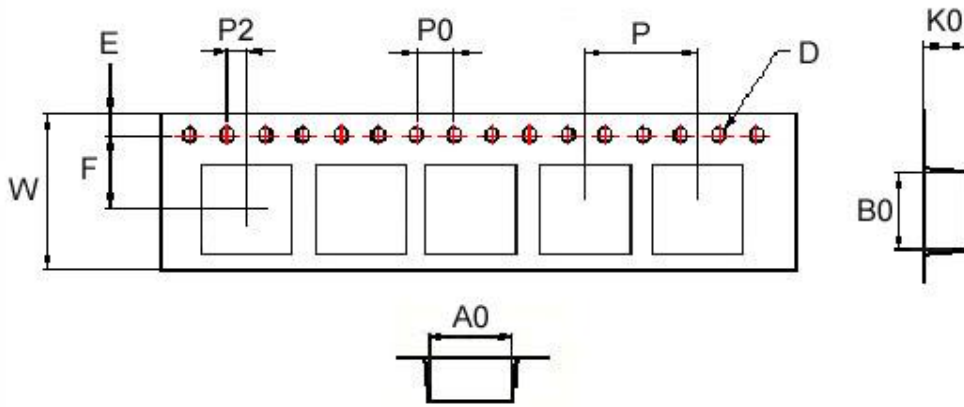


**Common Mode Choke APPC Series**

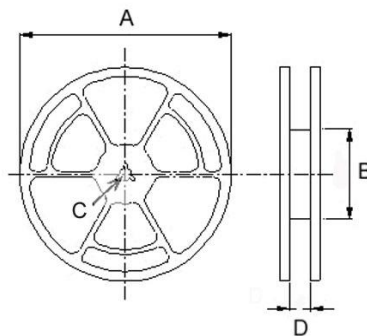
**Automotive  
AEC-Q200**

**■ Packaging**

Tape Dimensions



Reel Dimensions



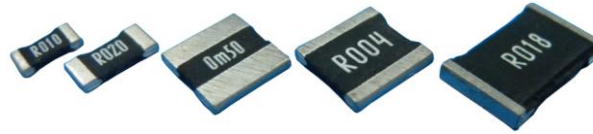
Dimensions in mm

TYPE	Tape Dimensions											Reel Dimensions				Quantity
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	PCS / REEL	
APPC00070635	6.4	7.4	3.6	1.55	1.75	7.5	16	8	4	2	330	100	13	16.0	1500	
APPC00090745	7.6	9.6	4.8	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	800	
APPC00121160	11.2	12.6	6.2	1.55	1.75	11.5	24	16	4	2	330	100	13	24.4	500	

## Metal Alloy Current Sensor ACRC Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Metal Alloy

Tight  
Tolerance

High  
Power

High  
Current

### Part Numbering

A	CRC	00	2512	1	R001XX	F
Grade	Product Series	Control Code	Dimensions Code	Rated Power	Resistance(6 Digits)	Tolerance
	Metal Alloy Low Resistance Resistor		1206	C 0.5W	R001XX 1mΩ	D ±0.5%
			2010	1 1.0W	R010XX 10mΩ	F ±1%
			2512	A 1.5W	R100XX 100mΩ	G ±2%
			2725	2 2.0W	R00025 0.25mΩ	J ±5%
			2728	3 3.0W		
			4527	B 3.5W		
			452S	4 4.0W		
				5 5.0W		

**Metal Alloy Current Sensor ACRC Series**

**Automotive  
AEC-Q200**

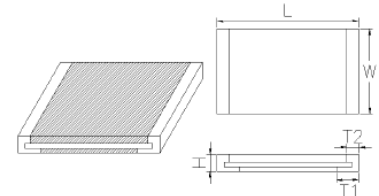
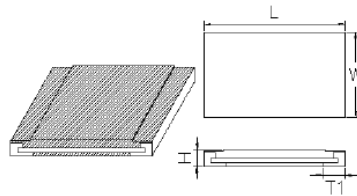
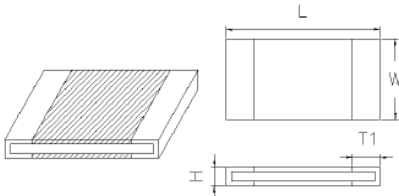
**ACRC00 Type**

**Configuration and Dimensions**

**1206 / 2010 / 2512 / 2725 / 2728**

**4527**

**452S**



Type	Maximum Power Rating (Watts)	Resistance Range (mΩ)	Dimensions - in inches				
			L±0.01	W±0.01	H±0.01	T1±0.01	T2±0.01
ACRC001206	0.5 & 1.0	0.3	0.126	0.063	0.022	0.022	
		0.5~0.6				0.039	
		1				0.025	
		2~4				0.02	
		5				0.022	
	1.5	6~50	0.022				
		0.3	0.039	0.024			
		0.5~0.6	0.039	0.02			
ACRC002010	1	0.5~0.9	0.2	0.1	0.031	0.057	
		1~3				0.031	
		3.1~4				0.025	0.031
		4.1~100				0.025	0.031
ACRC002512	1.0 & 1.5	0.3	0.246	0.126	0.04	0.079	
		0.5~3				0.031	0.074
		3.1~4				0.025	0.044
		4.1~75				0.025	0.034
		75.1~100				0.025	0.034
	2	0.3			0.04	0.079	
		0.5~3			0.031	0.074	
		3.1~4			0.031	0.074	
		4.1~75			0.0254	0.044	
	3	0.3			0.04	0.079	
		0.5			0.031	0.074	
		0.6~2.9			0.031	0.044	
3~4					0.066		
ACRC002725	4.0 & 5.0	0.2~0.5	0.268	0.254	0.039	0.085	
		0.6				0.039	0.071
		1				0.043	0.085
		1.5				0.039	0.085
		2					0.071
		2.25~2.5				0.035	0.065
		3				0.035	0.051
ACRC002728	3.0, 3.5 & 4.0	4~100	0.264	0.283	0.039	0.045	
ACRC00452S (without heat sink)	3	0.5	0.45	0.27	0.045	0.127	0.038
		0.6~3				0.127	
		4~5				0.071	
		5.1~20				0.071	
ACRC004527	5	0.5	0.45	0.27	0.053	0.127	
		0.6~3				0.127	
		4~5				0.071	
		5.1~120				0.071	

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## Metal Alloy Current Sensor ACRC Series

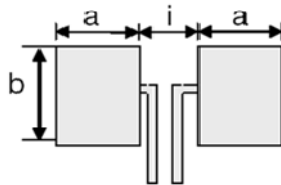
Automotive  
AEC-Q200

### ACRC00 Type

#### Material of Alloy

Type	Watts	Material	Resistance
ACRC001206	0.5	Copper-Manganese Alloy	$\leq 4.0\text{m}\Omega$
	1.0	Iron-Chromium Aluminium Alloy	$> 4.0\text{m}\Omega$
	1.5		
ACRC002010	1.0	Copper-Manganese Alloy	$\leq 4.0\text{m}\Omega$
		Iron-Chromium Aluminium Alloy	$> 4.0\text{m}\Omega$
ACRC002512	1.0	Copper-Manganese Alloy	$< 3.5\text{m}\Omega$
		Iron-Chromium Aluminium Alloy	$\geq 3.5\text{m}\Omega$
	3.0	Copper-Manganese Alloy	$\leq 2.5\text{m}\Omega$
		Iron-Chromium Aluminium Alloy	$\geq 3.0\text{m}\Omega$
ACRC002725	4.0	Copper-Manganese Alloy	$\leq 0.5\text{m}\Omega$
	5.0	Iron-Chromium Aluminium Alloy	$> 0.5\text{m}\Omega$
ACRC002728	3.0	Iron-Chromium Aluminium Alloy	All
	3.5		
	4.0		
ACRC004527 ACRC00452S	3.0	Copper-Manganese Alloy	$\leq 3.0\text{m}\Omega$
	5.0	Iron-Chromium Aluminium Alloy	$\geq 4.0\text{m}\Omega$

#### Recommended Land Pattern



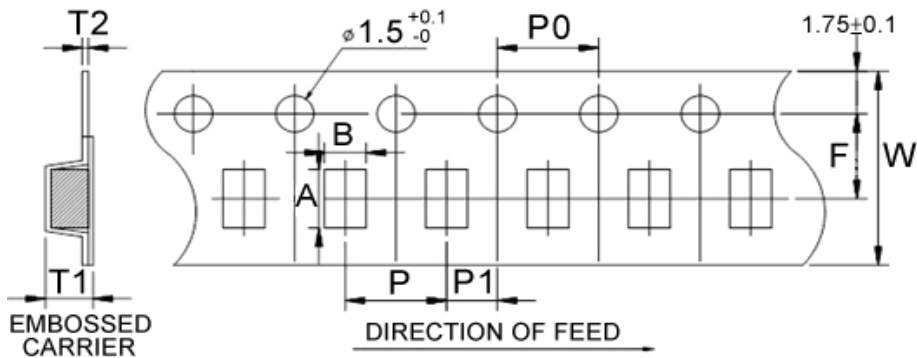
Type	Maximum Power Rating (Watts)	Resistance Range (m $\Omega$ )	Dimensions in millimeters		
			a	b	i
ACRC001206	0.5 & 1 & 1.5	0.3~0.6	1.65	2.18	0.9
		1~50	1.6		1
ACRC002010	1	0.5~3	2.89	2.92	1.22
		3.1~100	2.29		2.41
ACRC002512	1 & 1.5	0.3~4	3.05	3.68	1.27
		4.1~100	2.11		3.18
	2	0.3~4	3.05		1.27
		4.1~75	2.11		3.18
	3	0.3~0.5	3.05		1.27
		0.6~2.9	2.19		3
		4.1~10			
		3~4	2.79		1.8
ACRC002725	4	0.2~3	3.18	6.86	1.32
ACRC002728	3 & 3.5 & 4	4.~100	2.75	7.82	3.51
ACRC004527 ACRC00452S	3	0.5~5	4.8	8.74	5.51
		5.1~20	3.4		8.31
	5	0.5~5	4.8	8.74	5.51
		5.1~200	3.4		8.31

**Metal Alloy Current Sensor ACRC Series**

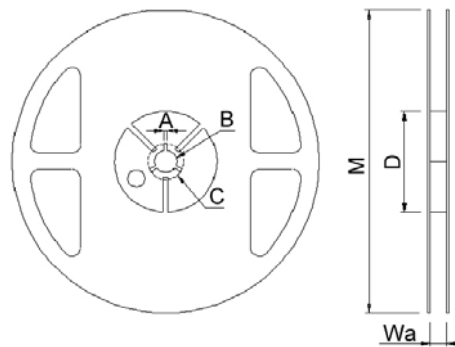
**Automotive  
AEC-Q200**

**■ Packaging**

**Tape Dimensions**



**Reel Dimensions**



**Dimensions in mm**

TYPE	Tape Dimensions									Reel Dimensions						Quantity PCS / REEL
	A	B	W	F	T1	T2	P	P0	P1	M	Wa	A	B	C	D	
ACRC001206 (0.3~0.6mΩ)	3.5	1.9	8	3.5	1.27	0.23	4	4	2	178	9	2	13.5	21	60	2000
ACRC001206 (≥1.0mΩ)	3.48	1.83	8	3.5	1.1	0.2	4	4	2	178	9	2	13.5	21	60	4000
ACRC002010	5.45	2.9	12	5.5	1.33	0.23	4	4	2	178	13.8	2	13.5	21	80	2000
ACRC002512 (0.3mΩ)	6.74	3.5	12	5.5	1.6	0.24	8	4	2	178	13.8	2	13.5	21	80	1000
ACRC002512	6.75	3.5	12	5.5	1.3	0.2	4	4	2	178	13.8	2	13.5	21	80	4000
ACRC002725	7.15	6.75	12	5.5	1.95	0.25	8	4	2	178	13.8	2	13.5	21	80	1000
ACRC002728	7.15	7.7	12	5.5	1.45	0.25	12	4	2	178	13.8	2	13.5	21	80	1000
ACRC004527	11.8	7.2	24	11.5	2	0.3	12	4	2	178	25	2	13.2	17.7	60	500
ACRC00452S	11.8	7.2	24	11.5	2	0.3	12	4	2	178	25	2	13.2	17.7	60	500

## Chip Resistor ACCH Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Wire  
Terminal

High  
Power

Thick Film

### Part Numbering

A	CCH	00	1206	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0805 2.0x1.25x0.5		0.1Ω R100	F ±1%	TP (5000PCS) : 0805~1210
			1206 3.05x1.55x0.5		10.2Ω 10R2	J ±5%	TE (4000PCS) : 2010~2512
			1210 3.05x2.55x0.55		10KΩ 1002		
			2010 4.95x2.45x0.7				
			2512 6.4x3.2x0.7				

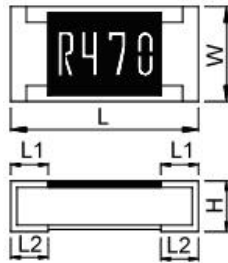
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Chip Resistor ACCH Series

Automotive  
AEC-Q200

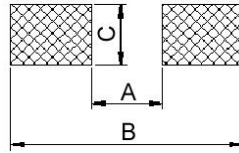
## ACCH Type

### ■ Dimensions



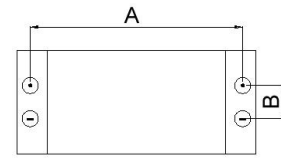
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACCH000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20	1.2	3.0	1.3	1.8	0.35
ACCH001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.65±0.25	2.2	4.2	1.6	2.9	0.35
ACCH001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35
ACCH002010	4.95±0.10	2.45±0.10	0.70±0.10	0.65±0.20	0.70±0.20	3.5	6.1	2.8	4.5	1.15
ACCH002512	6.40±0.20	3.20±0.20	0.70±0.10	0.72±0.20	0.69±0.20	3.8	8.0	3.5	5.9	1.60

### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Rated Current (A) Max.	Overload Current (A) Max.	T.C.R (ppm/°C)	Resistance Range (mΩ)
					±1%, ±5% E-24 · E-96
ACCH000805	2/5	1.58	3.95	±300	100 ≤ R < 1000
ACCH001206	1/2	2.23	5.59	±300	100 ≤ R < 1000
ACCH001210	3/4	2.73	6.84	±300	100 ≤ R < 1000
ACCH002010	1	3.16	7.90	±300	100 ≤ R < 1000
ACCH002512	2	4.47	11.18	±300	100 ≤ R < 1000
Operating Temperature Range				-55°C ~ +155°C	

## Chip Resistor ACCR Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Thick Film

AEC-Q200

### Part Numbering

A	CCR	00	1206	-	R100	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0603 1.6x0.8x0.45		0.1Ω R100	D ±0.5%	TP (5000PCS) : 0603~1210
			0805 2.0x1.25x0.5		10.2Ω 10R2	F ±1%	TE (4000PCS) : 2010~2512
			1206 3.05x1.55x0.5		10KΩ 1002		
			1210 3.05x2.55x0.55				
			2010 5.0x2.5x0.6				
			2512 6.3x3.2x0.6				

This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

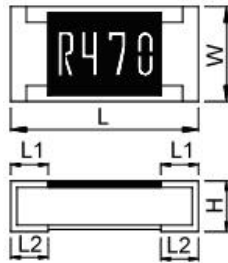


## Chip Resistor ACCR Series

Automotive  
AEC-Q200

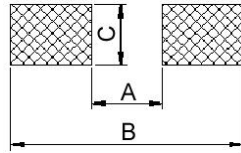
### ACCR Type

#### ■ Dimensions



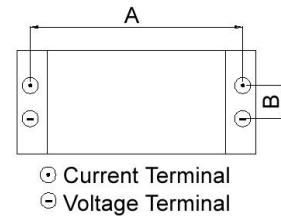
unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Measurement Point



unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACCR000603	1.60±0.10	0.80±0.10	0.45±0.10	0.25±0.15	0.35±0.15	0.8	2.1	0.9	1.35	0.35
ACCR000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20	1.2	3.0	1.3	1.8	0.35
ACCR001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.65±0.25	2.2	4.2	1.6	2.9	0.35
ACCR001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35
ACCR002010	5.00±0.20	2.50±0.20	0.60±0.10	0.65±0.20	0.65±0.20	3.5	6.1	2.8	4.5	1.15
ACCR002512	6.30±0.20	3.20±0.20	0.60±0.10	0.65±0.20	0.65±0.20	3.8	8.0	3.5	5.9	1.60

#### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Rated Current (A) Max.	Overload Current (A) Max.	T.C.R (ppm/°C)	Resistance Range (mΩ)
					±0.5%, ±1% E-24、E-96
ACCR000603	1/10	1.00	2.50	±200	100 ≤ R < 1000
ACCR000805	1/8	1.11	2.79	±200	100 ≤ R < 1000
ACCR001206	1/3	1.82	4.56	±200	100 ≤ R < 1000
ACCR001210	1/2	2.23	5.59	±200	100 ≤ R < 1000
ACCR002010	3/4	2.73	6.84	±200	100 ≤ R < 1000
ACCR002512	1	3.16	7.90	±200	100 ≤ R < 1000
Operating Temperature Range				-55°C ~ +155°C	

## Chip Resistor ACCW Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Wire  
Terminal

Thick Film

### Part Numbering

A	CCW	00	1218	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0612 1.6x3.2x0.55		10Ω 100X	F ±1%	TP 5000PCS
			1218 3.1x4.6x0.55		10.2Ω 10R2	J ±5%	TE 4000PCS
			1020 2.5x5x0.55		10KΩ 1002		
			1225 3.2x6.4x0.55				

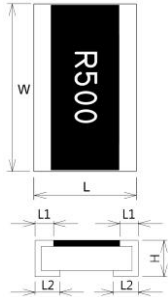
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

Chip Resistor ACCW Series

Automotive  
AEC-Q200

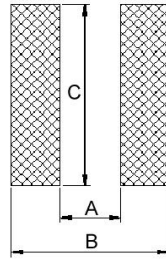
ACCW Type

■ Dimensions



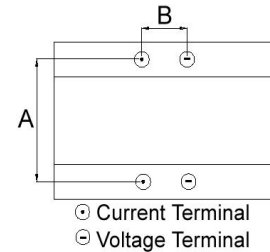
unit:mm

■ Recommended Land Pattern



unit:mm

■ Measurement Point



unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACCW000612	1.60±0.20	3.20±0.20	0.55±0.10	0.35±0.15	0.25±0.15	1.0	2.2	3.2	1.35	1.3
ACCW001218	3.10±0.10	4.60±0.20	0.55±0.10	0.45±0.25	0.40±0.20	1.6	3.9	4.75	2.8	2.0
ACCW001020	2.50±0.20	5.00±0.20	0.55±0.10	0.25±0.20	0.90±0.20	0.9	3.4	5.0	2.1	2.4
ACCW001225	3.20±0.20	6.40±0.20	0.55±0.10	0.45±0.20	0.75±0.20	1.5	4.1	6.4	2.9	3.0

Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Rated Current (A) Max.	Overload Current (A) Max.	T.C.R (ppm/°C)	Resistance Range (mΩ)
					±1%, ±5%
ACCW000612	3/4	8.66	21.65	±2000	10 ≤ R < 30
				±1000	30 ≤ R < 56
				±700	56 ≤ R < 180
				±250	180 ≤ R < 1000
ACCW001218	1	10	25	±2000	10 ≤ R < 30
				±1000	30 ≤ R < 56
				±700	56 ≤ R < 180
				±250	180 ≤ R < 1000
ACCW001020	1	10	25	±800	10 ≤ R < 30
				±400	30 ≤ R < 56
				±200	56 ≤ R < 180
					180 ≤ R < 1000
ACCW001225	2	12	30	±800	10 ≤ R < 30
				±400	30 ≤ R < 56
				±200	56 ≤ R < 180
					180 ≤ R < 1000
Operating Temperature Range				-55°C ~ +155°C	

## Thick Film Chip Resistor ACTA Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Metal Alloy

Thick Film

High  
Reliability

### Part Numbering

A	CTA	00	0402	-	10R2	F	00
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Internal Code
			0201 0.6x0.3x0.23		10Ω 100X	B ±0.1%	
			0402 1.0x0.5x0.3		10.2Ω 10R2	D ±0.5%	
			0603 1.6x0.8x0.45		10KΩ 1002	F ±1%	
			0805 2.0x1.25x0.5			G ±2%	
			1206 3.05x1.55x0.5			J ±5%	
			1210 3.05x2.55x0.55				
			2010 5.0x2.5x0.55				
			2512 6.3x3.2x0.55				

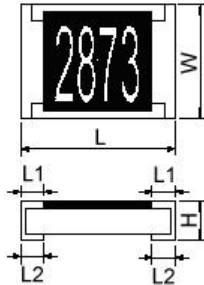
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Thick Film Chip Resistor ACTA Series

Automotive  
AEC-Q200

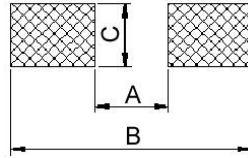
## ACTA Type

### ■ Dimensions



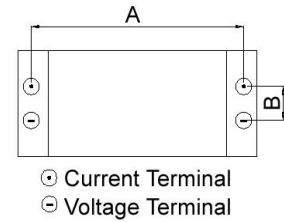
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTA000201	0.60±0.03	0.30±0.03	0.23±0.03	0.10±0.05	0.15±0.05	0.3	1	0.4	0.44	0.22
ACTA000402	1.00±0.10	0.50±0.05	0.30±0.05	0.20±0.10	0.25±0.10	0.5	1.5	0.6	0.8	0.24
ACTA000603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.15	0.30±0.15	0.8	2.1	0.9	1.35	0.35
ACTA000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.15	1.2	3	1.3	1.8	0.35
ACTA001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.35±0.15	2.2	4.2	1.6	2.9	0.35
ACTA001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35
ACTA002012	5.00±0.20	2.50±0.20	0.55±0.10	0.60±0.20	0.60±0.20	3.5	6.1	2.8	4.5	1.15
ACTA002512	6.30±0.20	3.20±0.20	0.55±0.10	0.60±0.20	0.60±0.20	3.8	8	3.5	5.9	1.6

## Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)				JUMPER Rated Current (A)		JUMPER Resistance Value (mΩ) Max.	
					±0.1%	±0.5%	±1%	±2%,±5%	±5%	±1%	±5%	±1%
					E-24、E-96	E-24、E-96	E-24、E-96	E-24				
ACTA000201	1/20	25	50	-200+400	-	1 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10	0.5	-	50	35
					±200	47 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M				
ACTA000402	1/16	50	100	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 1M	10 ≤ R ≤ 22M	10 ≤ R ≤ 22M	1	-	50	20
					±200	-	-	1 ≤ R < 10				
ACTA000603	1/10	75	150	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 1M	10 ≤ R ≤ 22M	10 ≤ R ≤ 22M	1	-	50	20
					±200	-	1 ≤ R < 10	1 ≤ R < 10				
ACTA000805	1/8	150	300	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 27M	10 ≤ R ≤ 27M	2	2.5	50	20
					±200	-	1 ≤ R < 10	1 ≤ R < 10				
ACTA001206	1/4	200	400	±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 27M	10 ≤ R ≤ 27M	2	3.5	50	20
					±200	3 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10				
ACTA001210	1/2	200	400	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 27M	10 ≤ R ≤ 27M	2	4	50	20
					±200	-	-	1 ≤ R < 10				
ACTA002010	1	200	400	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	10 ≤ R ≤ 20M	2	7	50	20
					±200	-	-	1 ≤ R < 10				
ACTA002512	1	200	400	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	10 ≤ R ≤ 20M	2	7	50	20
					±200	-	-	1 ≤ R < 10				
Operating Temperature Range				-55°C ~ +155°C (0201:-55°C ~ +125°C)								

## Thick Film Chip Resistor ACTG Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Thick Film

High  
Reliability

Pulse  
Proof

### Part Numbering

A	CTG	00	0805	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0603 1.6x0.8x0.45		4.7Ω 4R7X	D ±0.5%	0603 TP
			0805 2.0x1.25x0.5		10.2Ω 10R2	F ±1%	0805 TP
			1206 3.05x1.55x0.55		10KΩ 1002		1206 TP
			1210 3.05x2.55x0.55				1210 TP

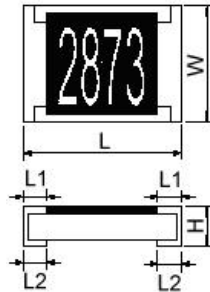
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Thick Film Chip Resistor ACTG Series

Automotive  
AEC-Q200

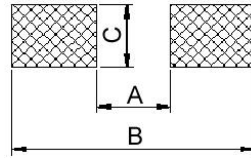
## ACTG Type

### ■ Dimensions



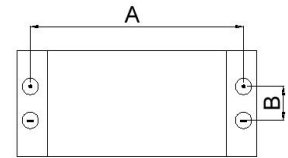
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTG000603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.15	0.30±0.15	0.8	2.1	0.9	1.35	0.35
ACTG000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.15	1.2	3	1.3	1.8	0.35
ACTG001206	3.05±0.10	1.55±0.10	0.55±0.10	0.45±0.20	0.35±0.15	2.2	4.2	1.6	2.9	0.35
ACTG001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35

### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)
					±0.5%, ±1% E-96
ACTG000603	1/4	75	150	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG000805	2/5	150	200	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG001206	1/2	200	400	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG001210	3/4	200	400	±100	10 ≤ R ≤ 1M
				±200	1 ≤ R < 10
Operating Temperature Range					-55°C ~ +155°C

## Thick Film Chip Resistor ACTG Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Thick Film

High  
Reliability

Anti  
Surge

### Part Numbering

A	CTG	00	0805	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0603 1.6x0.8x0.45		4.7Ω 4R7X	J ±5%	0603 TP
			0805 2.0x1.25x0.5		10.2Ω 10R2		0805 TP
			1206 3.05x1.55x0.55		10KΩ 1002		1206 TP
			1210 3.05x2.55x0.55				1210 TP

This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

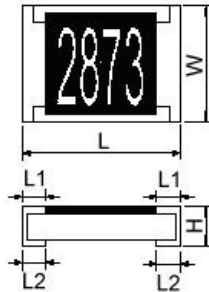


# Thick Film Chip Resistor ACTG Series

Automotive  
AEC-Q200

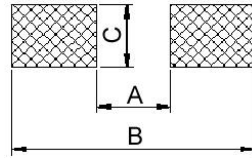
## ACTG Type

### ■ Dimensions



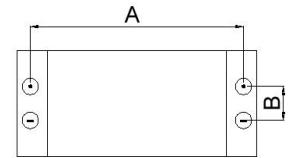
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTG000603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.15	0.30±0.15	0.8	2.1	0.9	1.35	0.35
ACTG000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.15	1.2	3	1.3	1.8	0.35
ACTG001206	3.05±0.10	1.55±0.10	0.55±0.10	0.45±0.20	0.35±0.15	2.2	4.2	1.6	2.9	0.35
ACTG001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35

### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)
					±5% E-24
ACTG000603	1/4	75	150	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG000805	2/5	150	200	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG001206	1/2	200	400	±200	10 ≤ R ≤ 1M
				±400	1 ≤ R < 10
ACTG001210	3/4	200	400	±100	10 ≤ R ≤ 1M
				±200	1 ≤ R < 10
Operating Temperature Range					-55°C ~ +155°C

## Chip Resistor ACTH Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Wire  
Terminal

High  
Power

Thick Film

### Part Numbering

A	CTH	00	1206	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0805 2.0x1.25x0.5		0.1Ω R100	F ±1%	TP (5000PCS) : 0805~1210
			1206 3.05x1.55x0.5		10.2Ω 10R2	J ±5%	TE (4000PCS) : 2010~2512
			1210 3.05x2.55x0.55		10KΩ 1002		
			2010 4.95x2.45x0.7				
			2512 6.4x3.2x0.7				

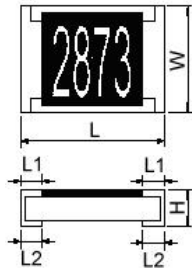
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Chip Resistor ACTH Series

Automotive  
AEC-Q200

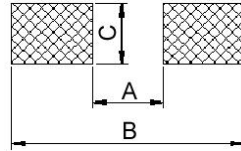
## ACTH Type

### ■ Dimensions



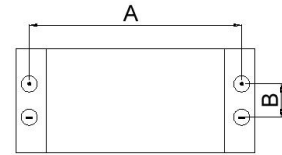
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTH000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20	1.2	3.0	1.3	1.8	0.35
ACTH001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.65±0.25	2.2	4.2	1.6	2.9	0.35
ACTH001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35
ACTH002010	4.95±0.10	2.45±0.10	0.70±0.10	0.65±0.20	0.70±0.20	3.5	6.1	2.8	4.5	1.15
ACTH002512	6.40±0.20	3.20±0.20	0.70±0.10	0.72±0.20	0.69±0.20	3.8	8.0	3.5	5.9	1.60

### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)	
					±1% E-24 · E-96	±5% E-24
ACTH000805	2/5	150	300	±100	10 ≤ R < 10M	10 ≤ R < 20M
				±200	1 ≤ R < 10	1 ≤ R < 10
ACTH001206	1/2	150	400	±100	10 ≤ R < 10M	10 ≤ R < 20M
				±200	1 ≤ R < 10	1 ≤ R < 10
ACTH001210	3/4	200	400	±100	10 ≤ R < 10M	10 ≤ R < 20M
				±200	1 ≤ R < 10	1 ≤ R < 10
ACTH002010	1	200	400	±100	10 ≤ R < 10M	10 ≤ R < 10M
				±200	1 ≤ R < 10	1 ≤ R < 10
ACTH002512	2	200	400	±100	10 ≤ R < 10M	10 ≤ R < 10M
				±200	1 ≤ R < 10	1 ≤ R < 10
Operating Temperature Range					-55°C ~ +155°C	

## Chip Resistor ACTR Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Thick Film

AEC-Q200

### Part Numbering

A	CTR	00	1206	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0603 1.6x0.8x0.45		0.1Ω R100	D ±0.5%	TP (5000PCS) : 0805~1210
			0805 2.0x1.25x0.5		10.2Ω 10R2	F ±1%	TE (4000PCS) : 2010~2512
			1206 3.05x1.55x0.5		10KΩ 1002		
			1210 3.05x2.55x0.55				
			2010 5.0x2.5x0.6				
			2512 6.3x3.2x0.6				

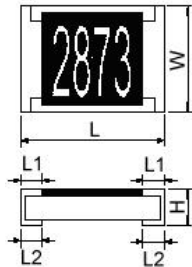
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Chip Resistor ACTR Series

Automotive  
AEC-Q200

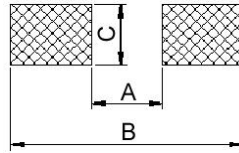
## ACTR Type

### ■ Dimensions



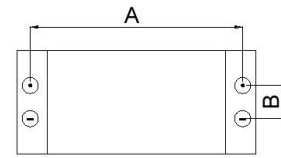
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



⊕ Current Terminal  
⊖ Voltage Terminal

unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTR000603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.15	0.30±0.15	0.8	2.1	0.9	1.35	0.35
ACTR000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20	1.2	3.0	1.3	1.8	0.35
ACTR001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.65±0.25	2.2	4.2	1.6	2.9	0.35
ACTR001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.9	0.35
ACTR002010	5.00±0.20	2.50±0.20	0.60±0.10	0.65±0.20	0.65±0.20	3.5	6.1	2.8	4.5	1.15
ACTR002512	6.30±0.20	3.20±0.20	0.60±0.10	0.65±0.20	0.65±0.20	3.8	8.0	3.5	5.9	1.60

### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (mΩ)
					±0.5%, ±1% E-24、E-96
ACTR000603	1/10	75	150	±50	100 ≤ R < 1M
ACTR000805	1/8	150	300	±50	100 ≤ R < 1M
ACTR001206	1/4	200	400	±50	100 ≤ R < 1M
ACTR001210	1/2	200	400	±50	100 ≤ R < 1M
ACTR002010	3/4	200	400	±50	100 ≤ R < 1M
ACTR002512	1	200	400	±50	100 ≤ R < 1M
Operating Temperature Range				-55°C ~ +155°C	

## Chip Resistor ACTW Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Wire  
Terminal

Thick Film

### Part Numbering

A	CTW	00	1218	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Special Code	Nominal Resistance	Tolerance	Taping Code
			0612 1.6x3.2x0.55		10Ω 100X	D ±0.5%	TP 5000PCS
			1218 3.1x4.6x0.55		10.2Ω 10R2	F ±1%	TE 4000PCS
			1020 2.5x5x0.55		10KΩ 1002	J ±5%	
			1225 3.2x6.4x0.55				

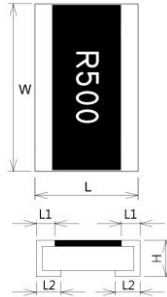
This specification applies to Thick Film Chip Resistor for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

# Chip Resistor ACTW Series

Automotive  
AEC-Q200

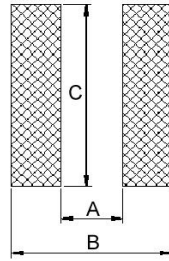
## ACTW Type

### ■ Dimensions



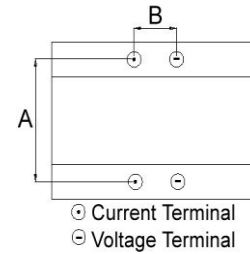
unit:mm

### ■ Recommended Land Pattern



unit:mm

### ■ Measurement Point



unit:mm

Type	Dimensions					Recommended Land Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A ±0.05	B ±0.05
ACTW000612	1.60±0.20	3.20±0.20	0.55±0.10	0.35±0.15	0.25±0.15	1.0	2.2	3.2	1.35	1.3
ACTW001218	3.10±0.10	4.60±0.20	0.55±0.10	0.45±0.25	0.40±0.20	1.6	3.9	4.75	2.8	2.0
ACTW001020	2.50±0.20	5.00±0.20	0.55±0.10	0.25±0.20	0.90±0.20	0.9	3.4	5.0	2.1	2.4
ACTW001225	3.20±0.20	6.40±0.20	0.55±0.10	0.45±0.20	0.75±0.20	1.5	4.1	6.4	2.9	3.0

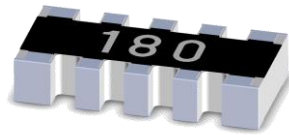
### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)		JUMPER Rated Current (A)		JUMPER Resistance Value (mΩ) Max.	
					±0.5%, ±1%	±5%				
					E-24、E-96	E-24	±5%	±1%	±5%	±1%
ACTW000612	3/4	200	400	±200	1 ≤ R < 10	1 ≤ R < 10	3	5	50	20
				±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 1M				
ACTW001218	1	250	500	±200	1 ≤ R < 10	1 ≤ R < 10	2	7	50	20
				±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 1M				
ACTW001020	1	200	400	±200	1 ≤ R < 10	1 ≤ R < 10	2	7	50	20
				±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 1M				
ACTW001225	1.5	200	400	±200	1 ≤ R < 10	1 ≤ R < 10	2	8.5	50	20
				±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 1M				
Operating Temperature Range				-55°C ~ +155°C						

## Thick Film Chip Resistors Array ACAD Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Thick Film

Array

### Part Numbering

A	CAD	00	0402	4	1002	F	TP
Grade	Product Series	Control Code	Dimensions Code (inch)	Number of Circuits	Nominal Resistance	Tolerance	Taping Code
			0402 1.0x1.0	2 2circuits	4.7Ω 4R7X	D ±0.5%	0402 TH
			0603 1.6x1.6	4 4circuits	10.2Ω 10R2	F ±1%	0603 TP
				8 8circuits	10KΩ 1002	G ±2%	
						J ±5%	

This specification applies to Thick Film Chip Resistors Array for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

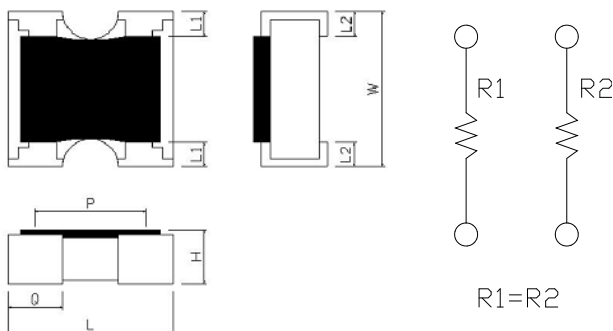


# Thick Film Chip Resistors Array ACAD Series

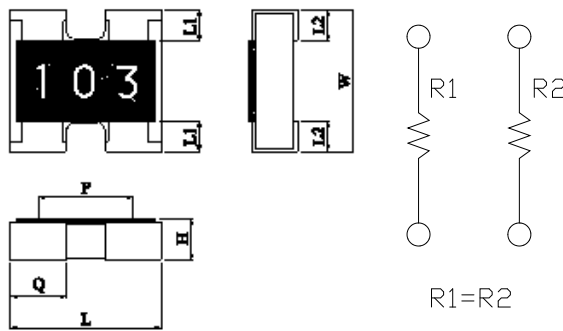
Automotive  
AEC-Q200

## ■ Dimensions and Circuits

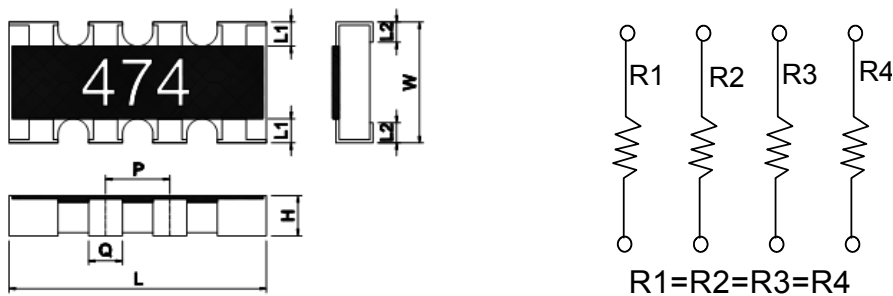
ACAD0004022



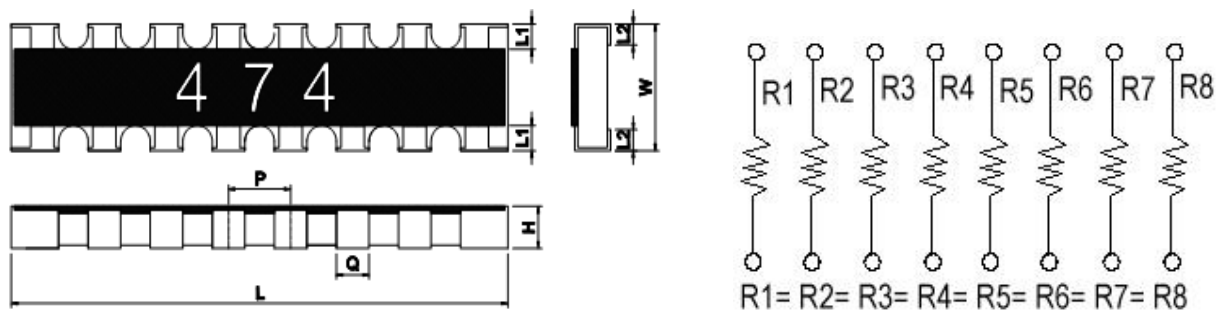
ACAD0006032



ACAD0004024 / 0006034



ACAD0004028

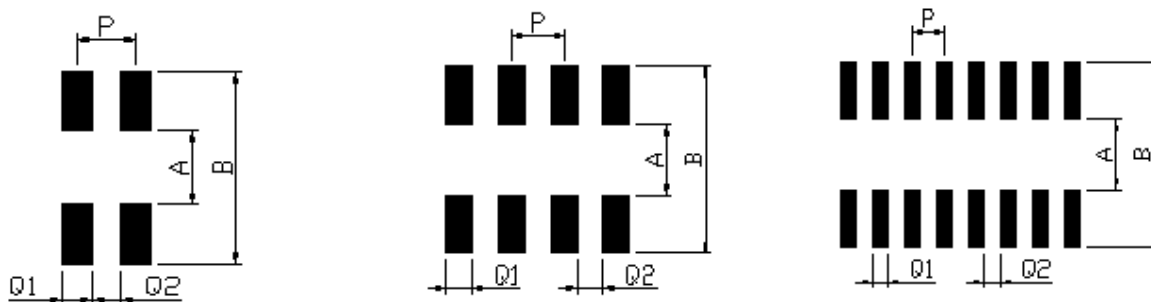


## ■ Recommend Land Pattern Design (For Reflow Soldering)

ACAD0004022 / 0006032

ACAD000402 / 0006034

ACAD0004028



**Thick Film Chip Resistors Array ACAD Series**

**Automotive  
AEC-Q200**

**■ Dimensions and Recommend Land Pattern**

unit:mm

TYPE	Dimensions							Recommended Land Pattern				
	L	W	H	L1	L2	P	Q	A	B	P	Q1	Q2
ACAD0004022	1.00±0.10	1.00±0.10	0.30±0.05	0.15±0.10	0.25±0.10	0.67	0.33±0.1	0.5	2.0	0.67	0.33	0.34
ACAD0006032	1.60±0.15	1.60±0.15	0.45±0.10	0.30±0.15	0.30±0.15	0.80	0.60±0.1	1.0	2.6	0.80	0.40	0.40
ACAD0004024	2.00±0.10	1.00±0.10	0.40±0.10	0.20±0.10	0.25±0.10	0.50	0.30±0.1	0.5	2.0	0.50	0.28	0.22
ACAD0006034	3.20±0.20	1.60±0.15	0.50±0.10	0.30±0.15	0.30±0.15	0.80	0.50±0.1	1.0	2.6	0.80	0.40	0.40
ACAD0004028	4.00±0.20	1.60±0.10	0.40±0.10	0.30±0.15	0.30±0.10	0.50	0.25±0.1	1.0	2.6	0.50	0.25	0.25

## Thick Film Chip Resistors Array ACAD Series

Automotive  
AEC-Q200

### ACAD Type

#### Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V)Max.	Overload Voltage (V)Max.	T.C.R. (ppm/°C)	Resistance Range			Number of Terminals	Number of Resistors	Jumper Rated Current (A)	Jumper Resistance Value (mΩ)Max.
					±0.5% E-24、E-96	±1% E-24、E-96	±2%, ±5% E-24				
ACAD0004022	1/16	25	50	±300	-	$1\Omega \leq R < 10\Omega$	$1\Omega \leq R < 10\Omega$	4	2	1	50
				±200	-	$10\Omega \leq R \leq 10M\Omega$	$10\Omega \leq R \leq 10M\Omega$				
ACAD0006032	1/16	50	100	±200	-	$10\Omega \leq R \leq 10M\Omega$	$10\Omega \leq R \leq 10M\Omega$	4	2	1	50
ACAD0004024	1/16	25	50	±300	-	$1\Omega \leq R < 10\Omega$	$1\Omega \leq R < 10\Omega$	8	4	1	50
				±200	-	$10\Omega \leq R \leq 10M\Omega$	$10\Omega \leq R \leq 10M\Omega$				
ACAD0006034	1/16	50	100	±200	$22\Omega \leq R \leq 470K\Omega$	$10\Omega \leq R \leq 10M\Omega$	$10\Omega \leq R \leq 10M\Omega$	8	4	1	50
ACAD0004028	1/16	25	50	±250	-	$10\Omega \leq R \leq 10M\Omega$	$10\Omega \leq R \leq 10M\Omega$	16	8	1	50
Operating Temperature Range				-55~+155°C							

## Leaded Power Chokes AFDI Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



### Part Numbering

A	FDI	00	303012	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			111109 12x12x9~9.5	1R0 1.0	M ±20%	
			121210 12x12x10	100 10		
			131210 13x12x8~12	101 100		
			161311 15.5x13x10~12			
			191909 19.5x8.5			
			212010 20.5x9.5			
			282811 28x10.5			
			303012 30x12.4			

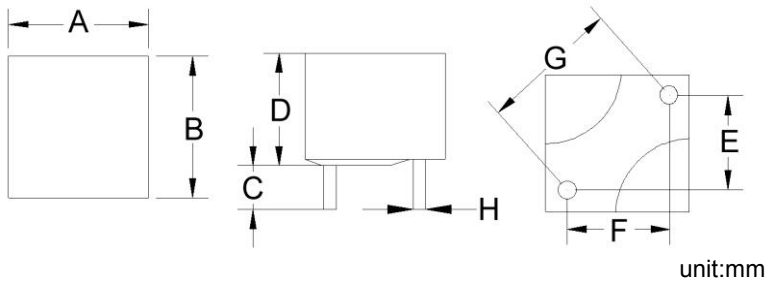
This specification applies to Power Choke for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

## Leaded Power Chokes AFDI Series

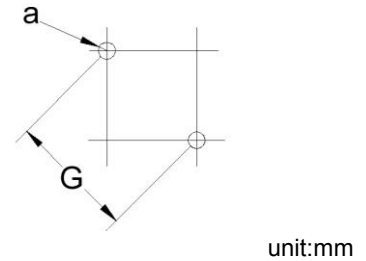
Automotive  
AEC-Q200

### AFDI00111109 Type

#### Dimensions



#### Recommended Land Pattern



#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tol. (±%)	Dimensions								
							A Max	B Max	C±0.5	D Max	E±0.5	F±0.5	G±0.5	H±0.1	a
AFDI001111091R0MR1	1	100kHz,1V	0.62(1.5)	35	35	20	12	12	3.4	9	7.3	6	9.4	1.5	1.9
AFDI001111092R5MR1	2.5	100kHz,1V	2.37(2.6)	25	27	20	12	12	3.4	9.5	6.6	6.6	9.3	1.2	1.6

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

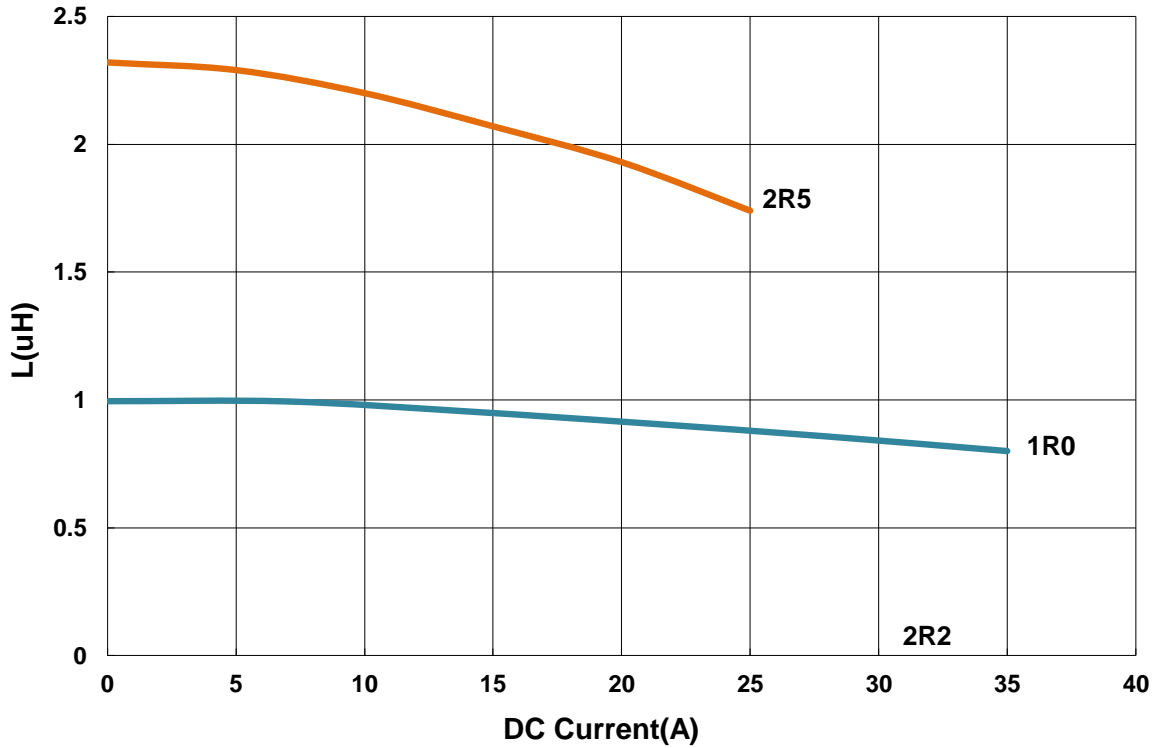
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

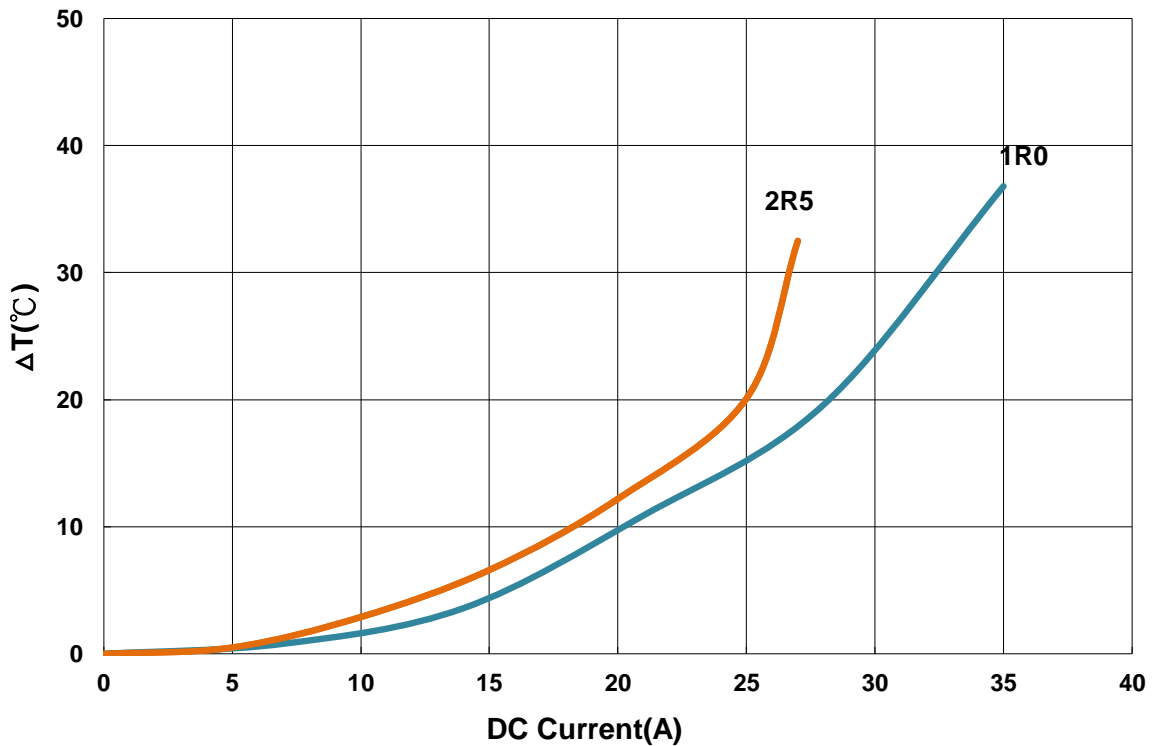
**AFDI00111109 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

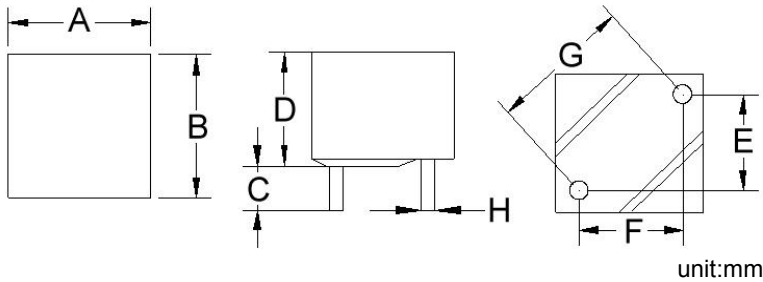


## Leaded Power Chokes AFDI Series

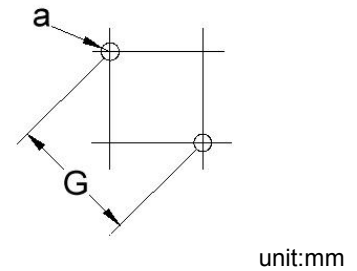
Automotive  
AEC-Q200

### AFDI00121210 Type

#### ■ Dimensions



#### ■ Recommended Land Pattern



#### ■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tol. (±%)	Dimensions								
							A±0.5	B±0.5	C±0.5	D Max	E±0.5	F±0.5	G±0.5	H±0.1	a
AFDI001212104R7M01	4.7	100kHz,1V	4.51(6)	16	15	20	12Max	12Max	3.4	10	7	7	10	1.1	1.5
AFDI001212108R2M01	8.2	100kHz,1V	7.92(9.3)	8	11	20	12	12	3.4	10	7	7	10	1	1.4

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

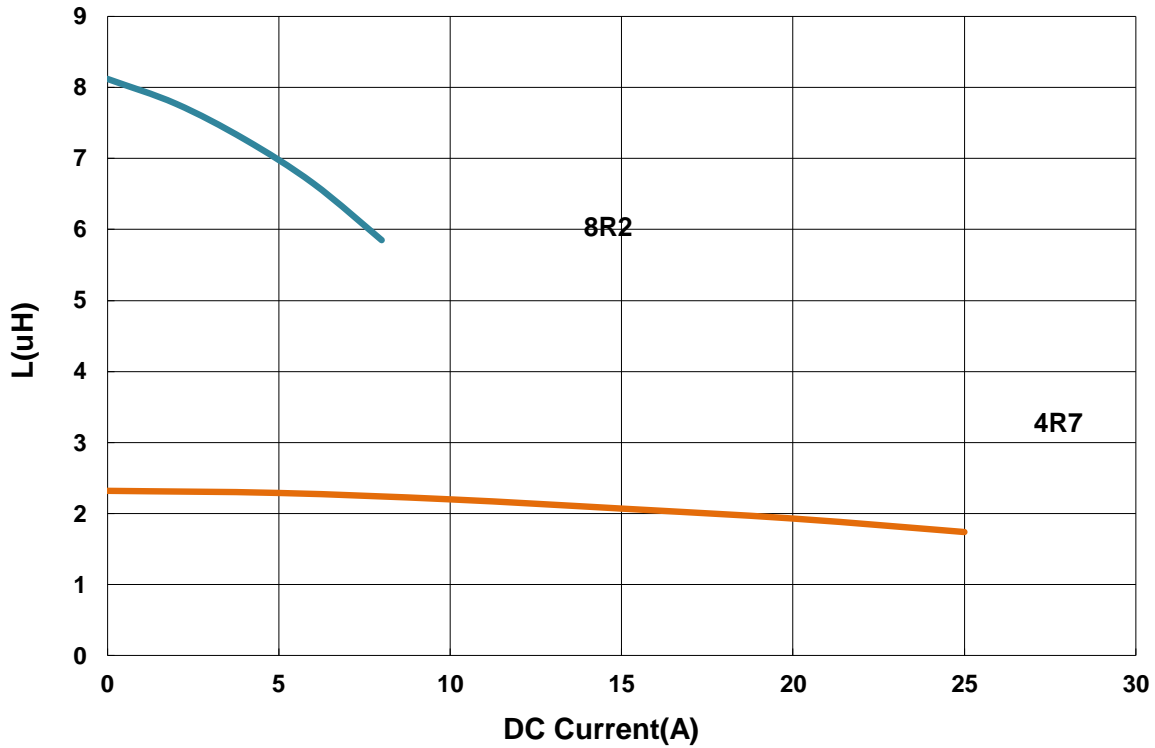
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

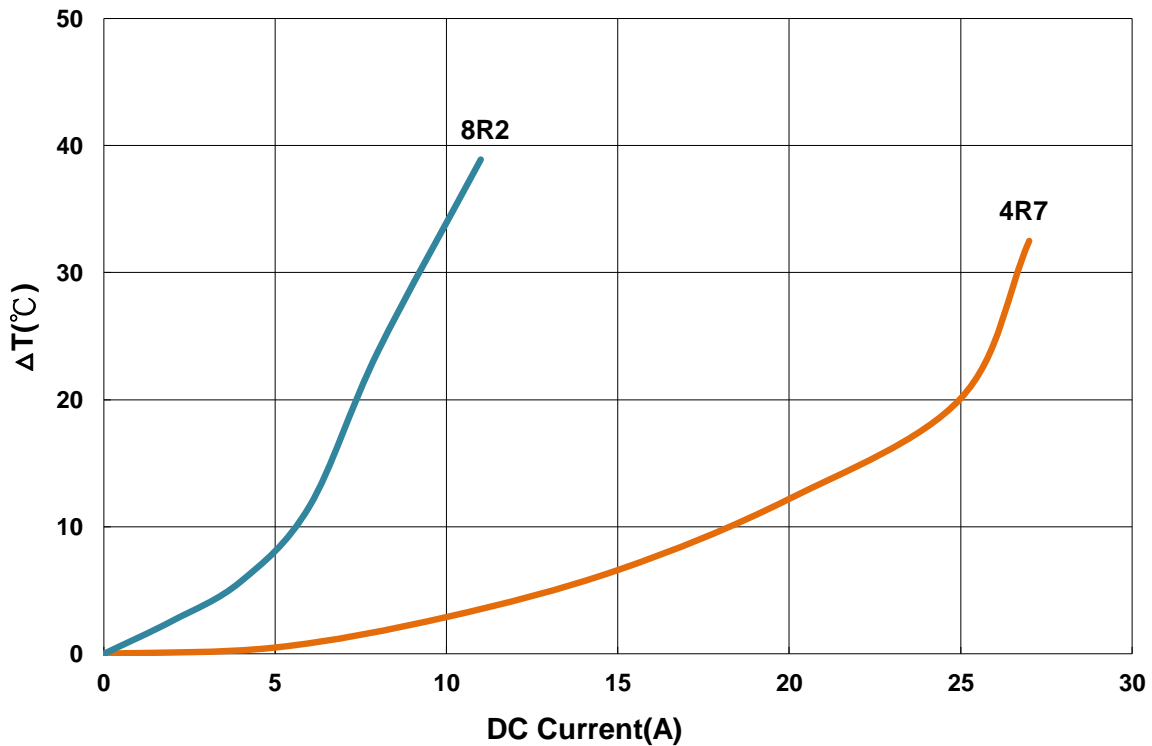
**AFDI00121210 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



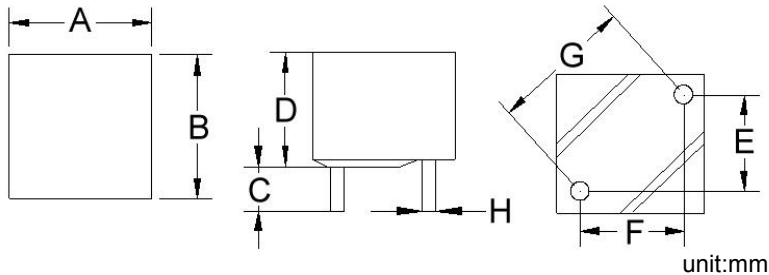


## Leaded Power Chokes AFDI Series

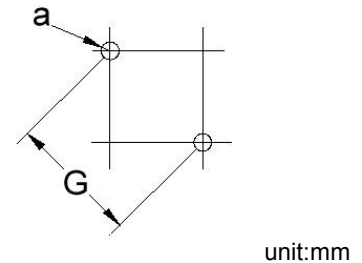
Automotive  
AEC-Q200

### AFDI00131210 Type

#### Dimensions



#### Recommended Land Pattern



#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tol. (±%)	Dimensions									
							A±0.5	B±0.5	C±0.5	D Max	E±0.5	F±0.5	G±0.5	H±0.1	a	
AFDI00131210R22M01	0.2	100kHz,1V	0.45(0.6)	55	60	20	12	13	3.5	8	7.5	6.5	10	1.5±0.2	1.9	
AFDI00131210R60M01	0.6	100kHz,1V	0.88(1)	45	35	20	13	12	3.4	10	6.6	7.6	10	1.5	1.9	
AFDI00131210R68M01	0.68	100kHz,1V	0.83(0.88)	50	45	30	12	13	3.5	8	7.6	6.5	10	1.5±0.2	1.9	
AFDI001312101R0M01	1	100kHz,1V	1.12(1.32)	40	30	20	13	12	3.4	10	6.6	7.6	10	1.5	1.9	
AFDI001312101R5M01	1.5	100kHz,1V	1.81(2)	40	26	20	13	12	3.4	11	6.6	7.6	10	1.2	1.6	
AFDI001312102R2M01	2.2	100kHz,1V	1.85(2)	20	20	20	13	12	3.4	10.5	6.6	7.6	10	1.3	1.7	
AFDI001312102R5M01	2.5	100kHz,1V	2.44(2.8)	34	28	20	13	12	3.4	10.5	6.6	7.6	10	1.2	1.6	
AFDI001312103R3M01	3.3	100kHz,1V	2.55(4)	23	19	20	13	12	3.4	12	6.6	7.6	10	1.2	1.6	
AFDI001312104R7M01	4.7	100kHz,1V	4.28(6)	20	20	20	13	12	3.4	12	6.6	7.6	10	1.3	1.7	

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:  
L: WK4237  
RDC: CHEN HWA502  
Isat: WK3260B/ 3265  
I<sub>rms</sub>: WK3260B/ 3265

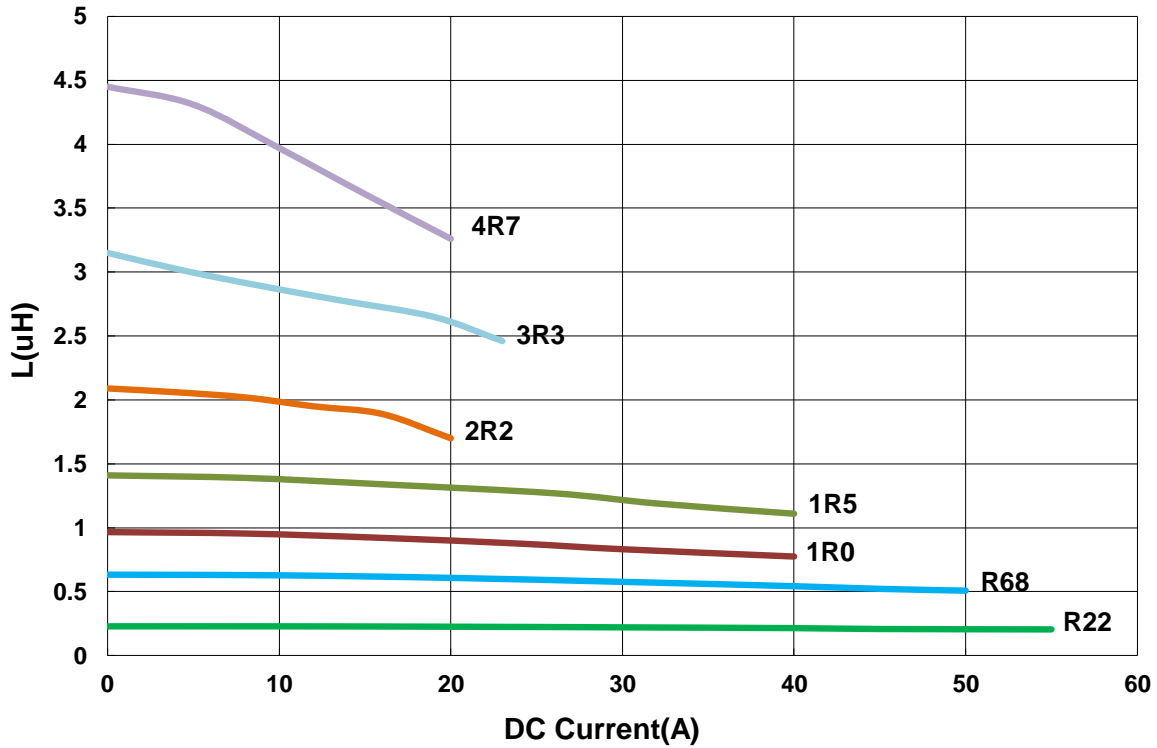
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

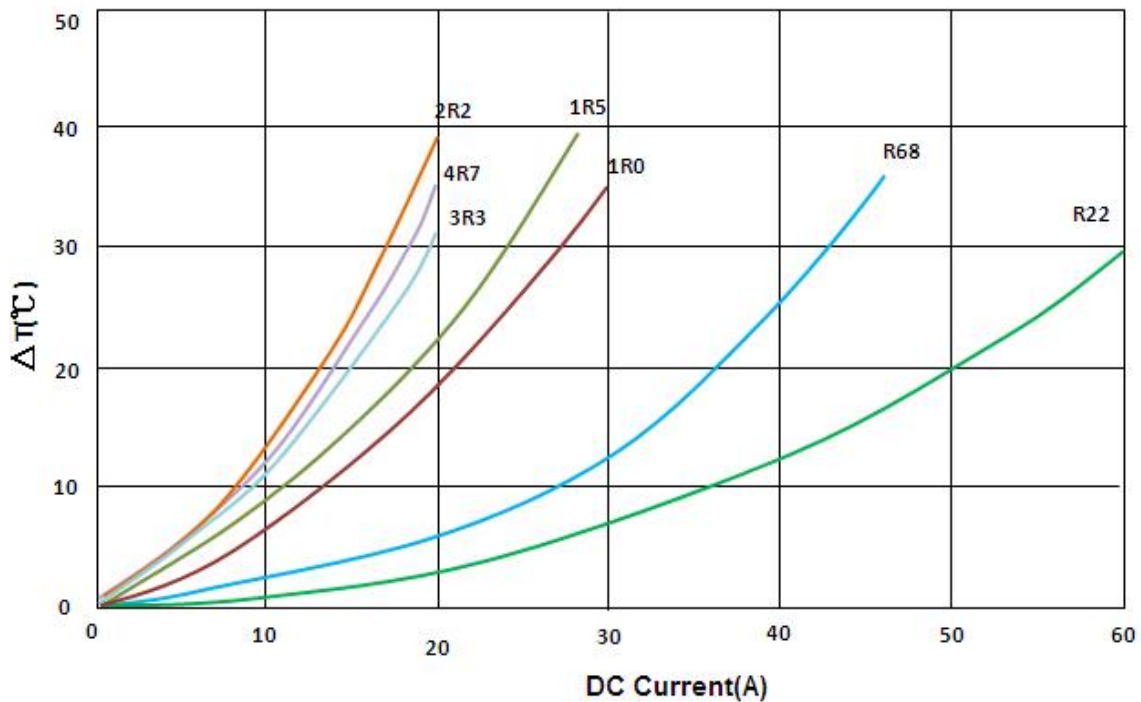
**AFDI00131210 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Inductance vs. DC Current**

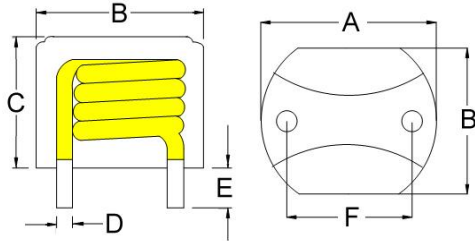


## Leaded Power Chokes AFDI Series

Automotive  
AEC-Q200

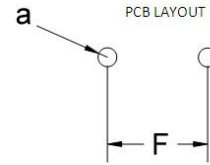
### AFDI00161311 Type

#### Dimensions



unit:mm

#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	Irms (A)Typ.	Tol. (±%)	Dimensions						
							A±0.5	B±0.5	C Max	D±0.1	E±0.5	F±0.5	a
AFDI001613113R3M01	3.3	100kHz,1V	3.18(3.7)	35	25	20	15.5	13	11	1.2	3.4	10	1.6
AFDI001613116R4M01	6.4	100kHz,1V	5.6(6.5)	20	14	20	15.5	13	12	1.2	4	10	1.6
AFDI001613116R8M01	6.8	100kHz,1V	5.83(6.5)	20	14	20	15.5	13	12	1.2	4	10	1.6
AFDI00161311120M01	12	100kHz,1V	10.02(12)	15	12	20	15.5	13	10	0.9	4	10	1.3
AFDI00161311220M01	22	100kHz,1V	16.97(25)	9	9	20	15.5	13	10.4±0.4	0.8	4	10	1.2

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. Irms for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

Irms: WK3260B/ 3265

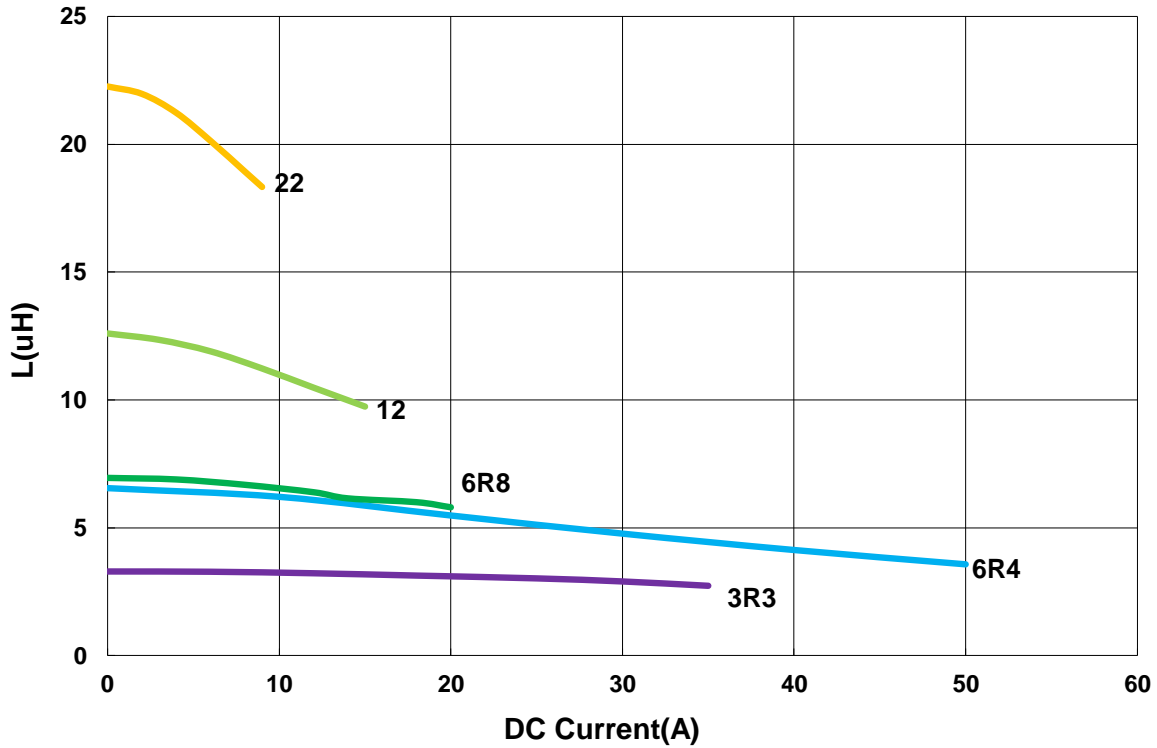
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

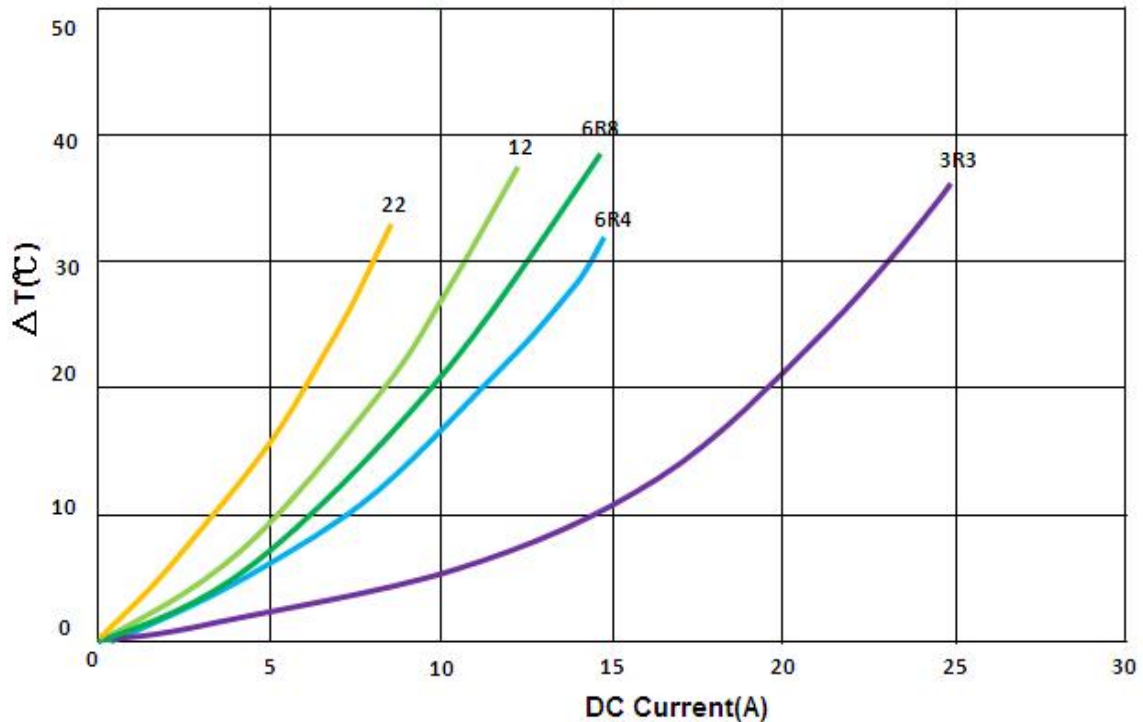
**AFDI00161311 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

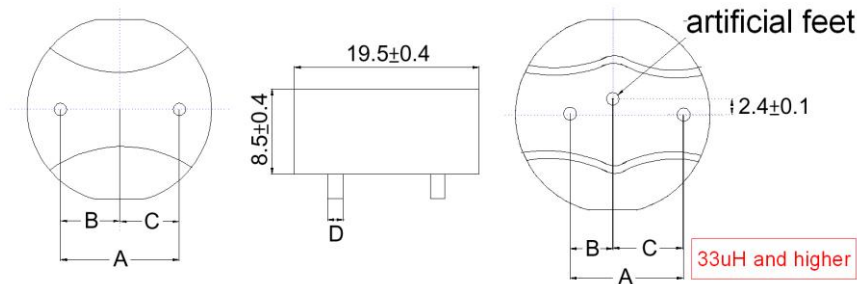


## Leaded Power Chokes AFDI Series

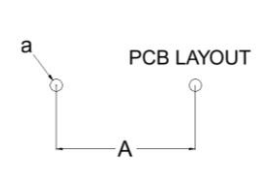
Automotive  
AEC-Q200

### AFDI00191909 Type

#### Dimensions



#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tolerance (±%)	Marking	Dimensions				
								A	B	C	D	a
AFDI00191909R47M06	0.47	100kHz,1V	0.33(0.45)	75	80	20	0.47 uH	12±0.1	6±0.1	6±0.1	2.0±0.1	2.4
AFDI001919091R0M06	1	100kHz,1V	0.75(0.86)	44	54	20	1.0 uH	12±0.1	6±0.1	6±0.1	1.8±0.1	2.2
AFDI001919092R2M06	2.2	100kHz,1V	1.32(1.52)	38	45	20	2.2 uH	12±0.1	6±0.1	6±0.1	1.8±0.1	2.2
AFDI001919093R3M06	3.3	100kHz,1V	1.95(2.3)	33	39	20	3.3 uH	12±0.1	5±0.1	7±0.1	1.6±0.1	2
AFDI001919094R7M06	4.7	100kHz,1V	2.91(3.2)	27	31	20	4.7 uH	12±0.1	5±0.1	7±0.1	1.4±0.1	1.8
AFDI001919096R8M06	6.8	100kHz,1V	3.85(4.1)	22	30	20	6.8 uH	12±0.1	4.5±0.1	7.5±0.1	1.4±0.1	1.8
AFDI001919098R2M06	8.2	100kHz,1V	4.85(6)	20	24	20	8.2 uH	12±0.1	4.5±0.1	7.5±0.1	1.3±0.1	1.7
AFDI00191909100M06	10	100kHz,1V	5.85(7)	18	22	20	10 uH	12±0.1	4.5±0.1	7.5±0.1	1.3±0.1	1.7
AFDI00191909220M06	22	100kHz,1V	12.06(13)	13	15	20	22 uH	12±0.1	4.5±0.1	7.5±0.1	1.0±0.1	1.4
AFDI00191909330M06	33	100kHz,1V	20.78(22.8)	11	10	20	33 uH	12±0.1	4.5±0.1	7.5±0.1	0.9±0.1	1.3
AFDI00191909470M06	47	100kHz,1V	32(35.2)	8	8	20	47 uH	12±0.1	4.5±0.1	7.5±0.1	0.8±0.1	1.2
AFDI00191909680M06	68	100kHz,1V	40.5(46)	7	7.5	20	68 uH	12±0.1	4.5±0.1	7.5±0.1	0.8±0.1	1.2
AFDI00191909820M06	82	100kHz,1V	50.2(56)	7	6	20	82 uH	12±0.1	4.5±0.1	7.5±0.1	0.7±0.1	1.1
AFDI00191909101M06	100	100kHz,1V	56.5(62)	6	6	20	100 uH	12±0.1	4.5±0.1	7.5±0.1	0.7±0.1	1.1

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

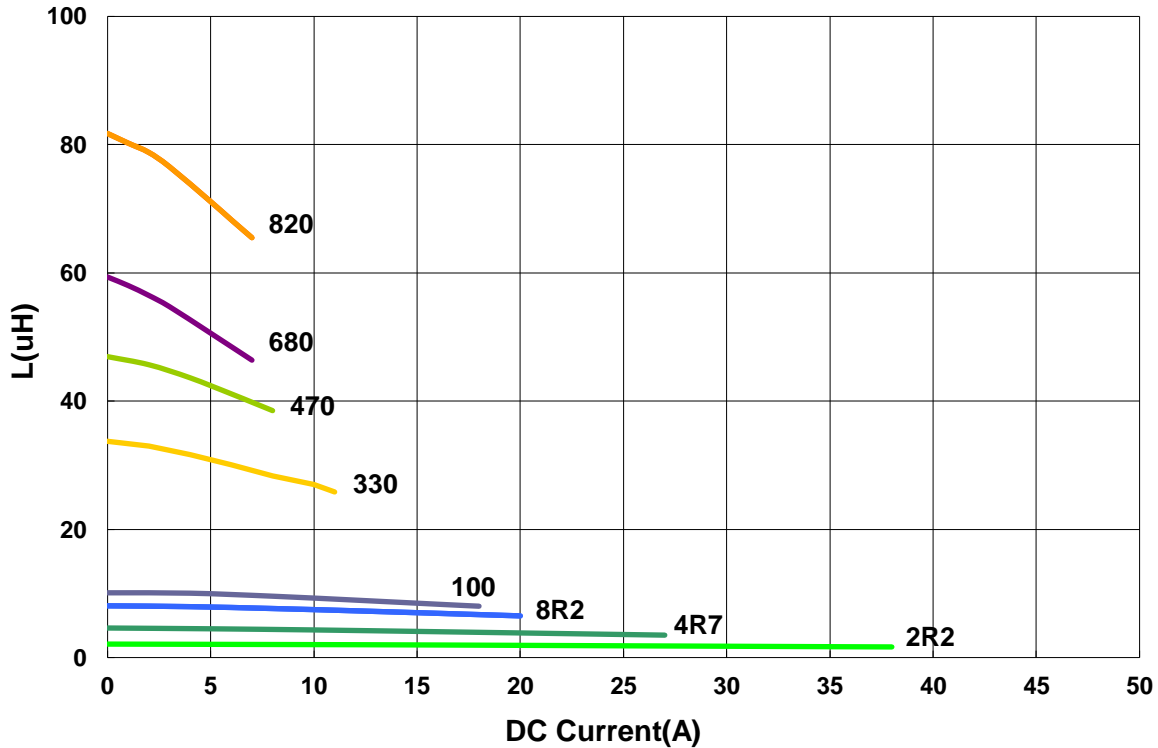
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

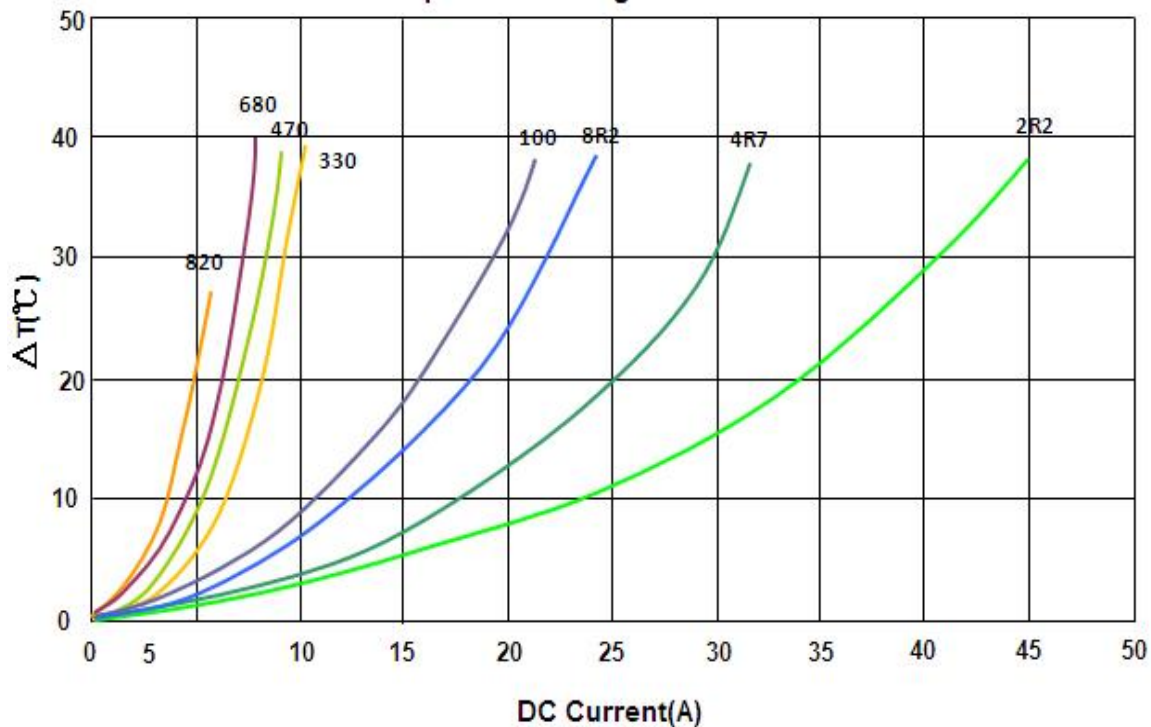
**AFDI00191909 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

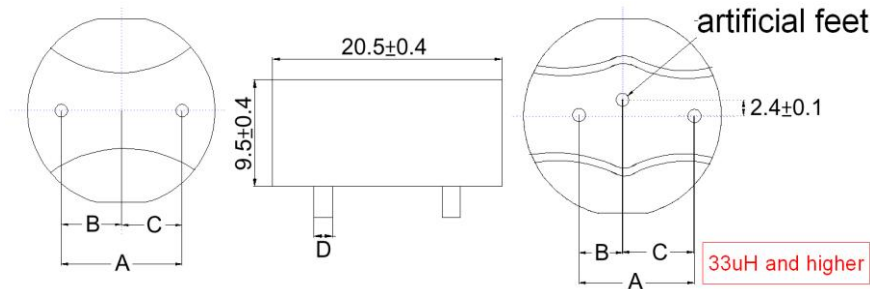


## Leaded Power Chokes AFDI Series

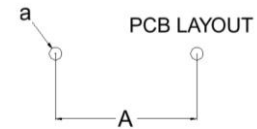
Automotive  
AEC-Q200

### AFDI00212010 Type

#### Dimensions



#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tolerance (±%)	Marking	Dimensions				
								A	B	C	D	a
AFDI00212010R47M01	0.47	100kHz,1V	0.32(0.44)	65	65	20	0.47 uH	12±0.5	6±0.5	6±0.5	2.0±0.1	2.4
AFDI002120101R0M01	1.0	100kHz,1V	0.7(0.88)	60	62	20	1.0 uH	12±0.5	6±0.5	6±0.5	1.8±0.1	2.2
AFDI002120102R2M01	2.2	100kHz,1V	1.24(1.58)	40	46	20	2.2 uH	12±0.5	6±0.5	6±0.5	1.8±0.1	2.2
AFDI002120103R3M01	3.3	100kHz,1V	1.8(2.3)	34	35	20	3.3 uH	12±0.5	5±0.5	7±0.5	1.6±0.1	2
AFDI002120104R7M01	4.7	100kHz,1V	2.59(2.98)	30	27	20	4.7 uH	12±0.5	5±0.5	7±0.5	1.4±0.1	1.8
AFDI002120106R8M01	6.8	100kHz,1V	3.74(4.12)	28	25	20	6.8 uH	12±0.5	4.5±0.5	7.5±0.5	1.4±0.1	1.8
AFDI002120108R2M01	8.2	100kHz,1V	4.55(5.8)	26	21	20	8.2 uH	12±0.5	4.5±0.5	7.5±0.5	1.3±0.1	1.7
AFDI00212010100M01	10	100kHz,1V	5.6(7.0)	25	20	20	10 uH	12±0.5	4.5±0.5	7.5±0.5	1.3±0.1	1.7
AFDI00212010220M01	22	100kHz,1V	12.7(13.1)	16	13	20	22 uH	12±0.5	4.5±0.5	7.5±0.5	1.0±0.1	1.4
AFDI00212010330M01	33	100kHz,1V	19(22)	12	10	20	33 uH	12±0.5	4.5±0.5	7.5±0.5	0.9±0.1	1.3
AFDI00212010470M01	47	100kHz,1V	30.7(35.6)	10	8	20	47 uH	12±0.5	4.5±0.5	7.5±0.5	0.8±0.1	1.2
AFDI00212010680M01	68	100kHz,1V	38(44.8)	11	7	20	68 uH	12±0.5	4.5±0.5	7.5±0.5	0.8±0.1	1.2
AFDI00212010820M01	82	100kHz,1V	50(55.8)	9	6.4	20	82 uH	12±0.5	4.5±0.5	7.5±0.5	0.7±0.1	1.1
AFDI00212010101M01	100	100kHz,1V	54.7(62)	9	5.8	20	100 uH	12±0.5	4.5±0.5	7.5±0.5	0.7±0.1	1.1

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

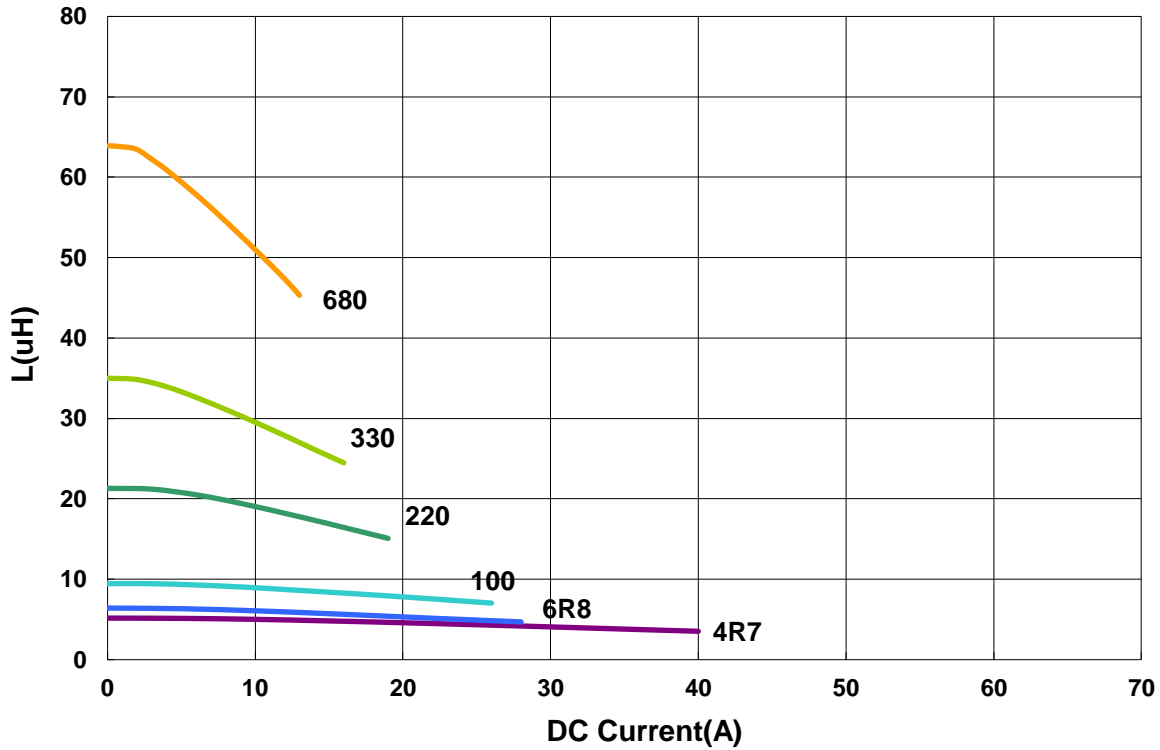
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

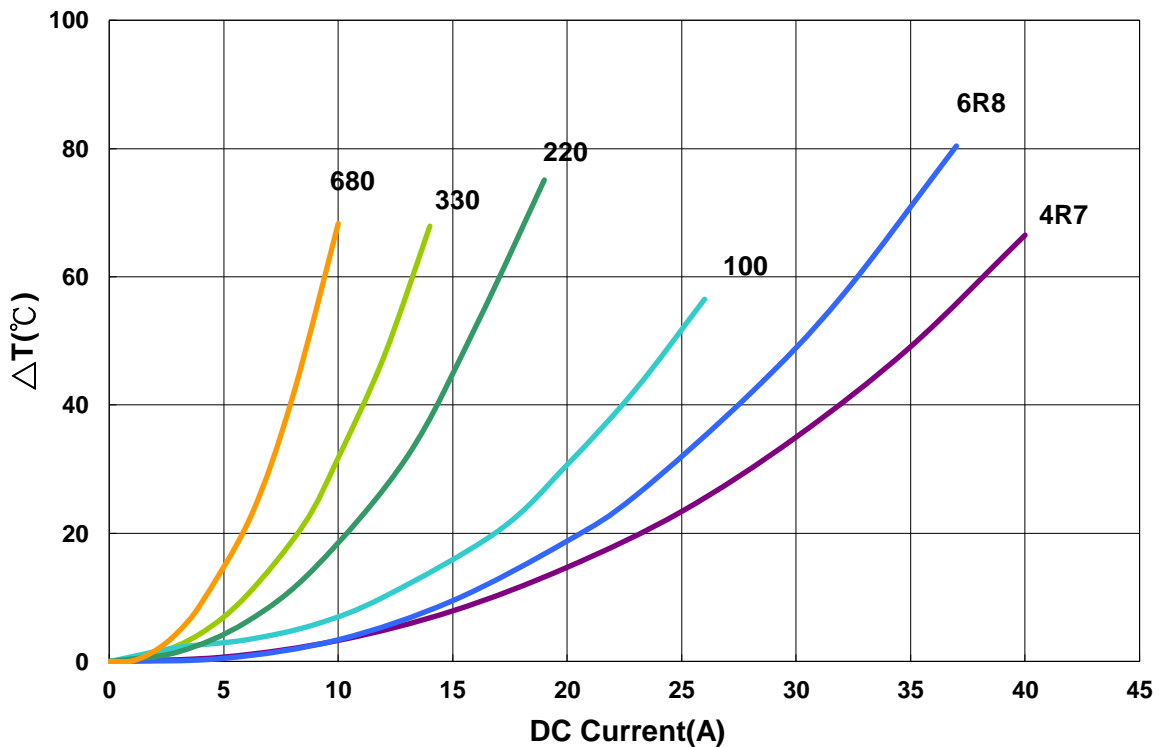
**AFDI00212010 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



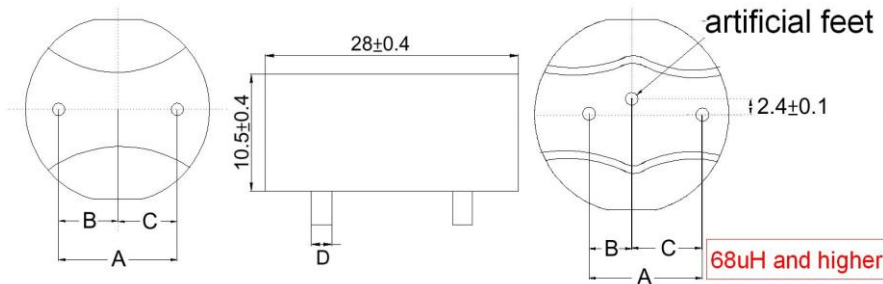


## Leaded Power Chokes AFDI Series

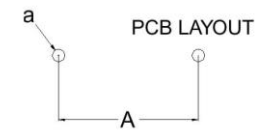
Automotive  
AEC-Q200

### AFDI00282811 Type

#### Dimensions



#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tolerance (±%)	Marking	Dimensions				
								A	B	C	D	a
AFDI002828111R0M06	1.0	100kHz,1V	0.4(0.49)	70	90	20	1.0 uH	16±0.5	9.3	6.7	2.5±0.1	2.9
AFDI002828112R2M06	2.2	100kHz,1V	0.72(0.77)	64	72	20	2.2 uH	16±0.5	9.3	6.7	2.5±0.1	2.9
AFDI002828113R3M06	3.3	100kHz,1V	1.14(1.30)	60	57	20	3.3 uH	16±0.5	9.3	6.7	2.3±0.1	2.7
AFDI002828114R7M06	4.7	100kHz,1V	1.36(1.43)	52	53	20	4.7 uH	16±0.5	9.3	6.7	2.3±0.1	2.7
AFDI002828116R8M06	6.8	100kHz,1V	1.91(1.99)	44	45	20	6.8 uH	16±0.5	9.3	6.7	2.0±0.1	2.4
AFDI002828118R2M06	8.2	100kHz,1V	2.27(2.80)	32	40	20	8.2 uH	16±0.5	8.0	8.0	2.0±0.1	2.4
AFDI00282811100M06	10	100kHz,1V	3.13(3.64)	30	36	20	10 uH	16±0.5	8.0	8.0	1.8±0.1	2.2
AFDI00282811150M06	15	100kHz,1V	4.43(4.76)	20	28	20	15 uH	16±0.5	10	6.0	1.8±0.2	2.2
AFDI00282811220M06	22	100kHz,1V	6.46(6.85)	19	24	20	22 uH	16±0.5	9.8	6.2	1.6±0.1	2.0
AFDI00282811330M06	33	100kHz,1V	10.42(11.3)	18	18	20	33 uH	16±0.5	10	6.0	1.3±0.1	1.7
AFDI00282811470M06	47	100kHz,1V	13.68(14.7)	16.2	16	20	47 uH	16±0.5	10	6.0	1.3±0.1	1.7
AFDI00282811680M06	68	100kHz,1V	25.8(27.4)	11	11	20	68 uH	16±0.5	9.8	6.2	1.1±0.1	1.5
AFDI00282811820M06	82	100kHz,1V	28.6(30.5)	8	11	20	82 uH	16±0.5	9.8	6.2	1.1±0.1	1.5
AFDI00282811101M06	100	100kHz,1V	30.6(32.2)	7	11	20	100 uH	16±0.5	9.8	6.2	1.1±0.1	1.5

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

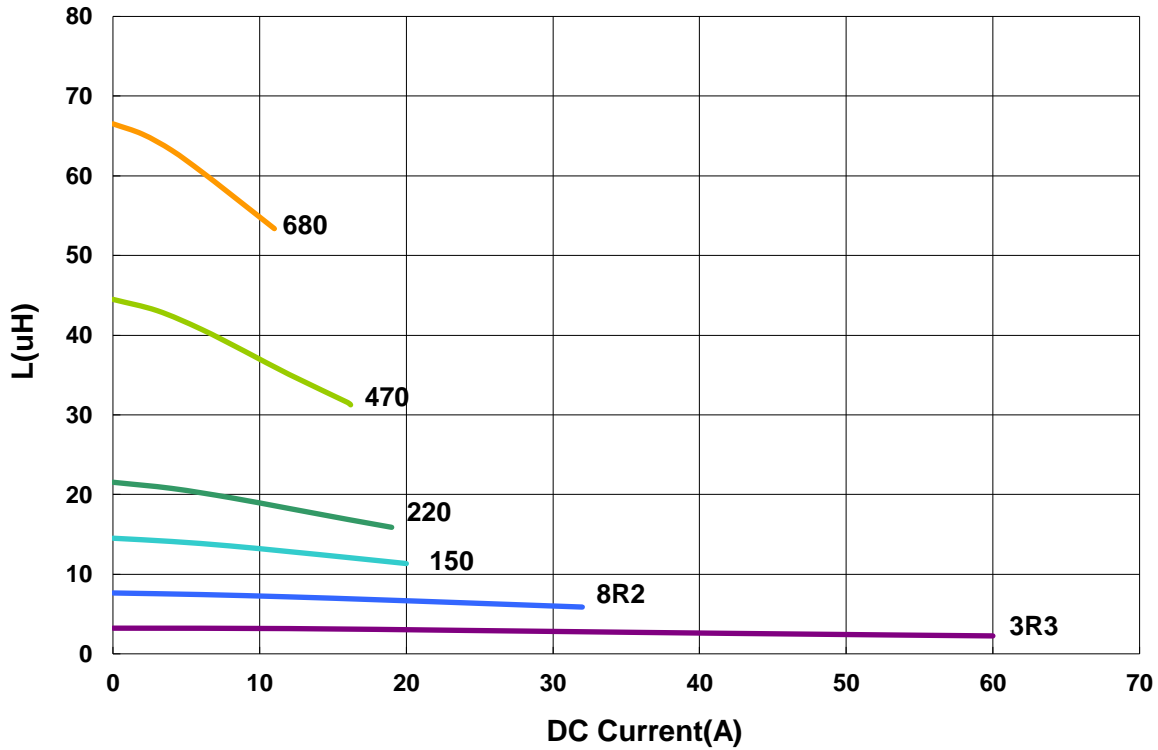
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

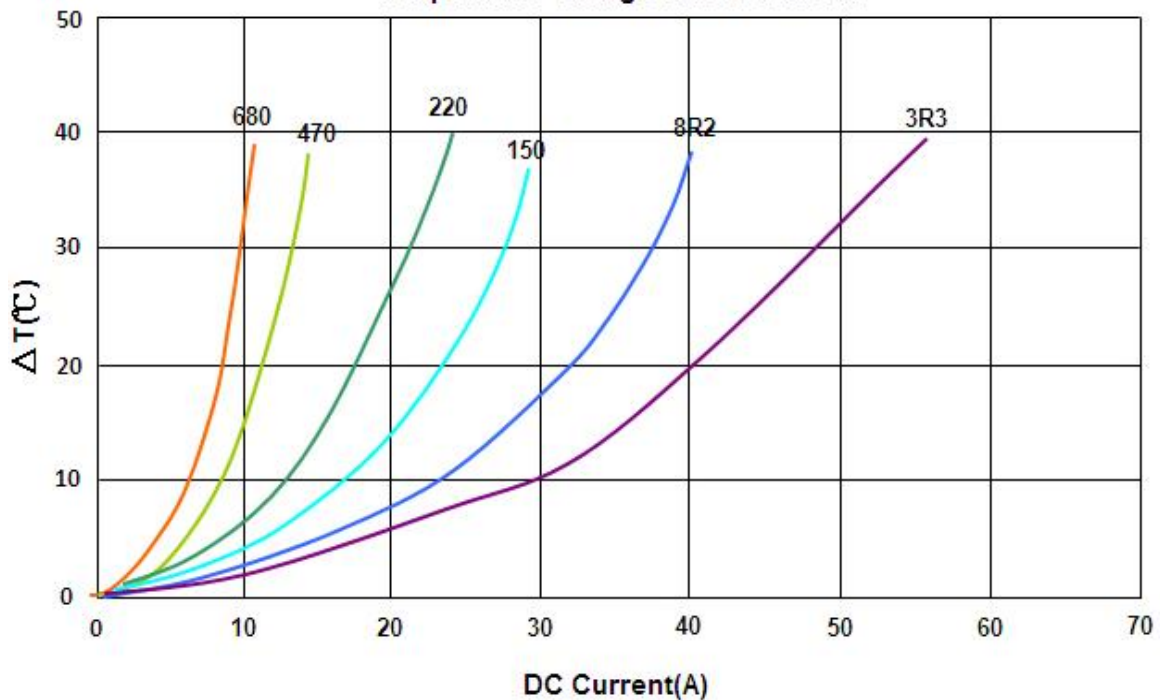
**AFDI00282811 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

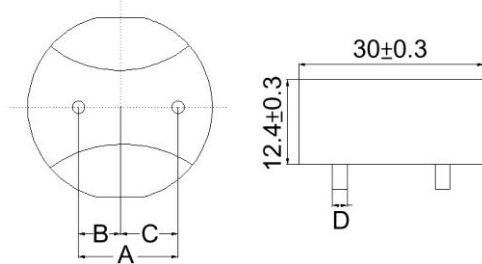


## Leaded Power Chokes AFDI Series

Automotive  
AEC-Q200

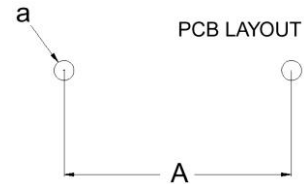
### AFDI00303012 Type

#### Dimensions



unit:mm

#### Recommended Land Pattern



unit:mm

#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Typ(Max)	Isat (A)Typ.	I <sub>rms</sub> (A)Typ.	Tolerance (±%)	Marking	Dimensions				
								A	B	C	D	a
AFDI003030121R0M04	1.0	100kHz,1V	0.39(0.50)	65	90	20	1.0 uH	16±0.5	6.8±0.5	9.2±0.5	2.5±0.1	2.9
AFDI003030122R2M04	2.2	100kHz,1V	0.71(0.77)	65	72	20	2.2 uH	16±0.5	6.8±0.5	9.2±0.5	2.5±0.1	2.9
AFDI003030123R3M04	3.3	100kHz,1V	1.31(1.50)	62	60	20	3.3 uH	16±0.5	8±0.5	8±0.5	2.0±0.1	2.4
AFDI003030124R7M04	4.7	100kHz,1V	1.30(1.43)	53	54	20	4.7 uH	16±0.5	6.8±0.5	9.2±0.5	2.3±0.1	2.7
AFDI003030126R8M04	6.8	100kHz,1V	1.81(1.97)	44	46	20	6.8 uH	16±0.5	6.8±0.5	9.2±0.5	2.3±0.1	2.7
AFDI003030128R2M04	8.2	100kHz,1V	2.56(3.00)	34	36	20	8.2 uH	16±0.5	6.2±0.5	9.8±0.5	2.0±0.1	2.4
AFDI00303012100M04	10	100kHz,1V	3.20(3.64)	32	34	20	10 uH	16±0.5	6.2±0.5	9.8±0.5	1.8±0.1	2.2
AFDI00303012150M04	15	100kHz,1V	4.25(4.76)	28	28	20	15 uH	16±0.5	6.2±0.5	9.8±0.5	1.8±0.2	2.2
AFDI00303012220M04	22	100kHz,1V	6.40(6.83)	23	23	20	22 uH	15±0.5	5.75±0.5	9.25±0.5	1.6±0.1	2
AFDI00303012330M04	33	100kHz,1V	10.6(11.3)	18	18	20	33 uH	15±0.5	5.4±0.5	9.6±0.5	1.3±0.1	1.7
AFDI00303012470M04	47	100kHz,1V	13.5(14.6)	16.2	16	20	47 uH	15±0.5	5.4±0.5	9.6±0.5	1.3±0.1	1.7
AFDI00303012680M04	68	100kHz,1V	25.5(27.4)	11	12	20	68 uH	15±0.5	5.7±0.5	9.3±0.5	1.1±0.1	1.5
AFDI00303012101M04	100	100kHz,1V	29.5(32.2)	9	11	20	100 uH	15±0.5	5.7±0.5	9.3±0.5	1.1±0.1	1.5
AFDI00303012121M04	120	100kHz,1V	34.2(36.5)	8	9	20	120 uH	15±0.5	5.7±0.5	9.3±0.5	1.1±0.1	1.5

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

1. Customized Specifications are welcome
2. Operating temperature range - 50°C ~ 155°C(Including self - temperature rise)
3. Isat for Inductance drop 20% from its value without current
4. I<sub>rms</sub> for a 40°C temperature rise from 25°C ambient with current
5. Measure Equipment:

L: WK4237

RDC: CHEN HWA502

Isat: WK3260B/ 3265

I<sub>rms</sub>: WK3260B/ 3265

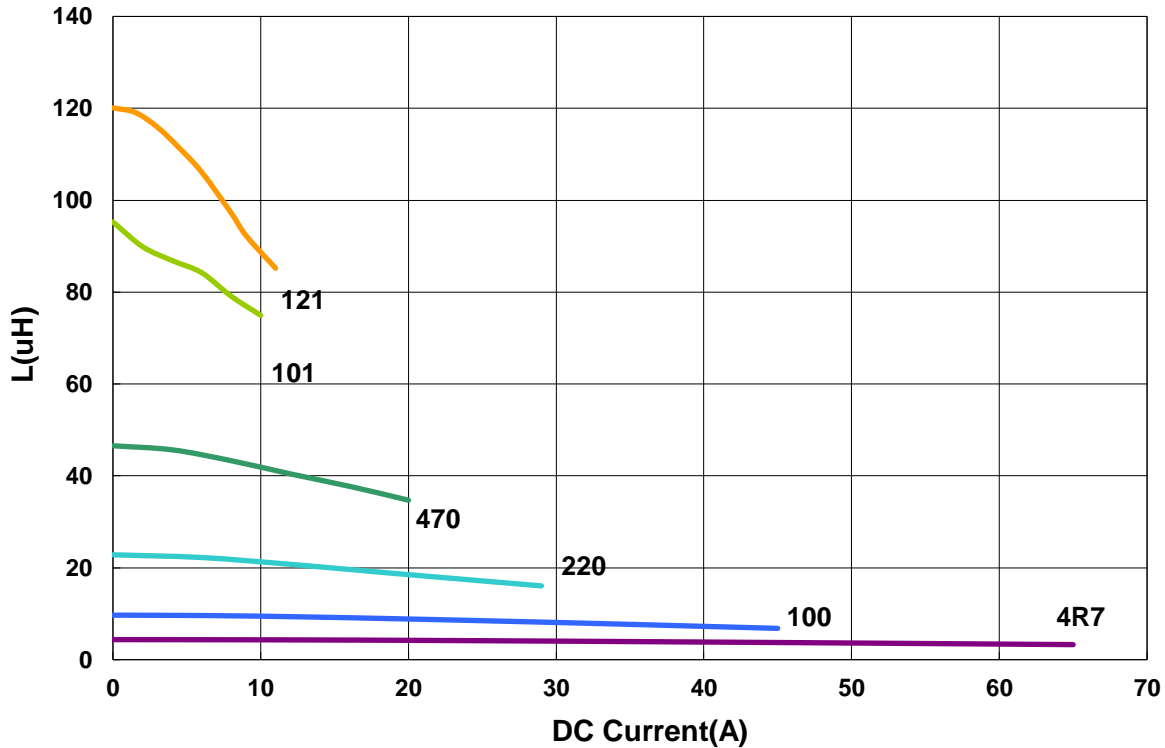
**Leaded Power Chokes AFDI Series**

**Automotive  
AEC-Q200**

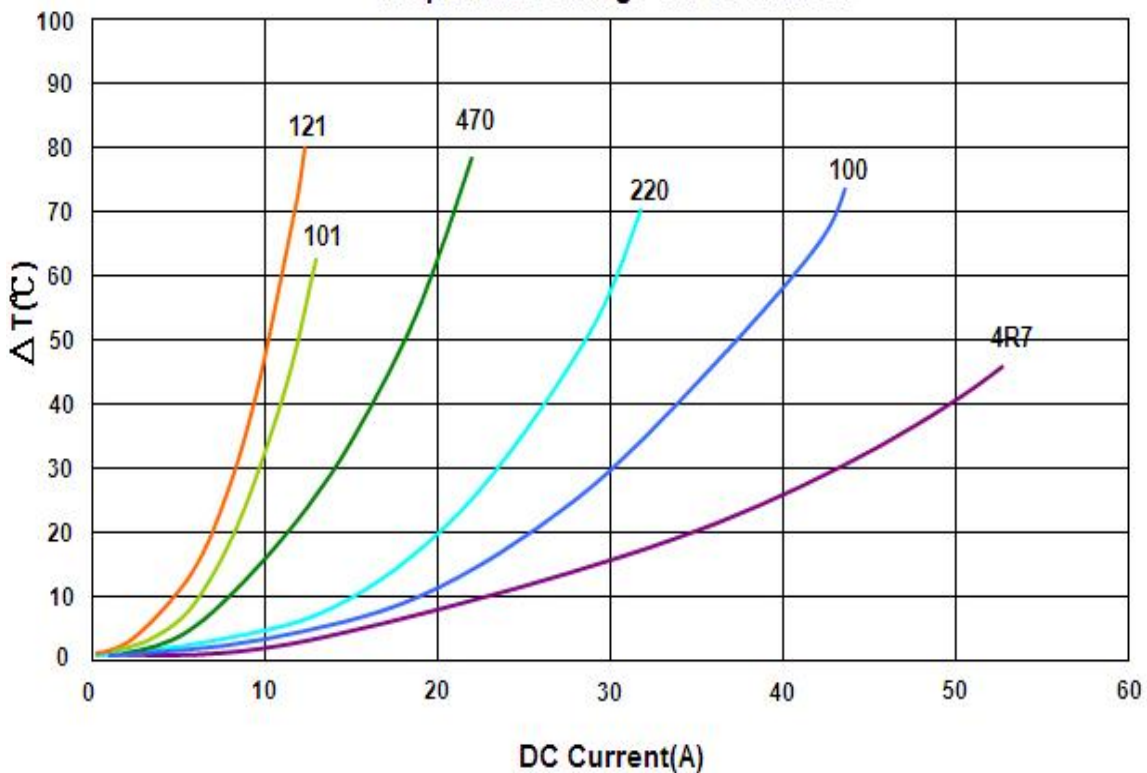
**AFDI00303012 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

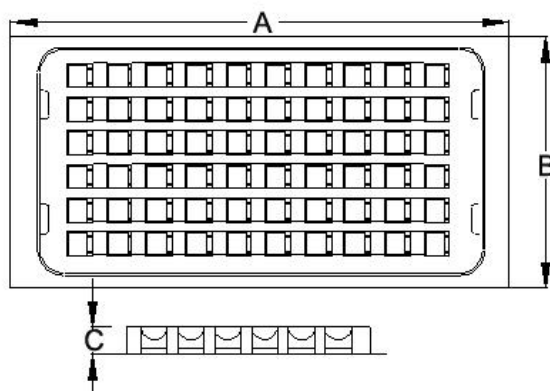


## Leaded Power Chokes AFDI Series

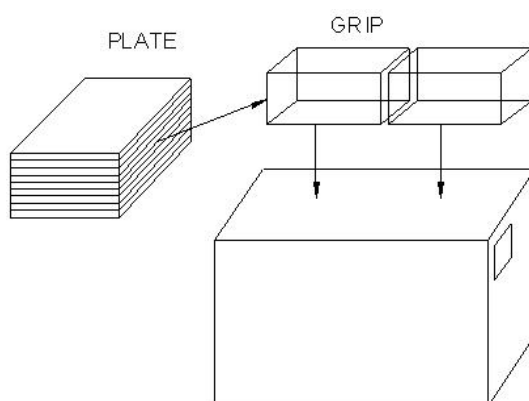
Automotive  
AEC-Q200

### ■ Packaging

Plate Dimensions



Packaging Quantity



Dimensions in mm

TYPE	Plate Dimensions			Quantity				
	A	B	C	BULK	PLATE	PLATE/GRIP	GRIP	BOX
AFDI00111109	251	138	13	v	100	8	2	1600
AFDI00121210	251	138	13	v	100	8	2	1600
AFDI00131210	251	138	13	v	50	8	2	800
AFDI00161311	251	138	13	v	50	7	2	700
AFDI00191909	252	222	25.5	v	49	5	2	490
AFDI00212010	252	222	25.5	v	49	5	2	490
AFDI00282811	250	220	24	v	25	5	2	250
AFDI00303012	250	220	24	v	25	5	2	250