



**THE DATASHEET OF  
AWVS00404012100M00**



**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



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

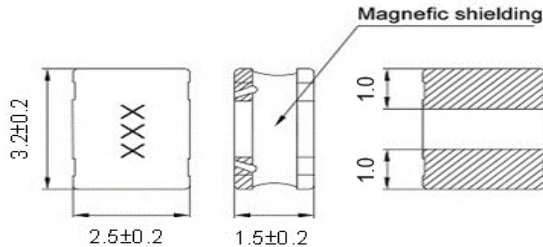
**Part Numbering**

A	WVS	00	606045	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			322515 3.2x2.5x1.5	R47 0.47	M ±20%	00 General
			404012 4.0x4.0x1.2	1R0 1.0	T ±30%	L1 Low DCR
			404018 4.0x4.0x1.8	101 100		
			505020 5.0x5.0x2.0			
			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			

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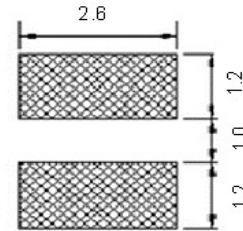
**AWVS00322515 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	SRF (MHZ)Min.	RDC (mΩ)±20%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVS00322515R22□00	0.2	1MHz,1V	300	22	4.5(4.0)	4.2(3.7)	20,30	R22
AWVS00322515R47□00	0.47	1MHz,1V	168	27	3.4(3.0)	3.8(3.4)	20,30	R47
AWVS003225151R0□00	1	1MHz,1V	95	40	2.3(2.0)	3.2(2.8)	20,30	1R0
AWVS003225151R5□00	1.5	1MHz,1V	81	47	1.8(1.6)	3.0(2.7)	20,30	1R5
AWVS003225152R2□00	2.2	1MHz,1V	60	57	1.6(1.4)	2.8(2.5)	20,30	2R2
AWVS003225153R3□00	3.3	1MHz,1V	45	77	1.3(1.1)	2.4(2.1)	20,30	3R3
AWVS003225154R7□00	4.7	1MHz,1V	40	110	1.1(0.99)	2.0(1.8)	20,30	4R7
AWVS003225156R8□00	6.8	1MHz,1V	30	160	0.90(0.81)	1.7(1.5)	20,30	6R8
AWVS00322515100□00	10	1MHz,1V	25	220	0.78(0.70)	1.4(1.2)	20,30	100
AWVS00322515150□00	15	1MHz,1V	21	320	0.60(0.54)	1.1(0.99)	20,30	150
AWVS00322515220□00	22	1MHz,1V	17	470	0.50(0.45)	0.95(0.85)	20,30	220
AWVS00322515330□00	33	1MHz,1V	12	700	0.40(0.36)	0.80(0.72)	20,30	330
AWVS00322515470□00	47	1MHz,1V	11	1000	0.34(0.30)	0.65(0.58)	20,30	470
AWVS00322515680□00	68	1MHz,1V	9.5	1400	0.29(0.26)	0.53(0.47)	20,30	680
AWVS00322515101□00	100	1MHz,1V	7.5	1900	0.23(0.20)	0.43(0.38)	20,30	101
AWVS00322515121□00	120	1MHz,1V	6.7	2800	0.20(0.18)	0.36(0.32)	20,30	121
AWVS00322515221□00	220	1MHz,1V	5	4700	0.15(0.13)	0.26(0.23)	20,30	221
AWVS00322515471□00	470	1MHz,1V	3.3	10000	0.10(0.09)	0.17(0.15)	20,30	471
AWVS00322515681□00	680	1MHz,1V	2.5	15000	0.08(0.07)	0.14(0.12)	20,30	681
AWVS00322515102□00	1000	0.1MHz,1V	2	23000	0.06(0.05)	0.11(0.09)	20,30	102

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

1. Operating temperature range - 4 0 °C ~ 1 2 5 °C(Including self - temperature rise)

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

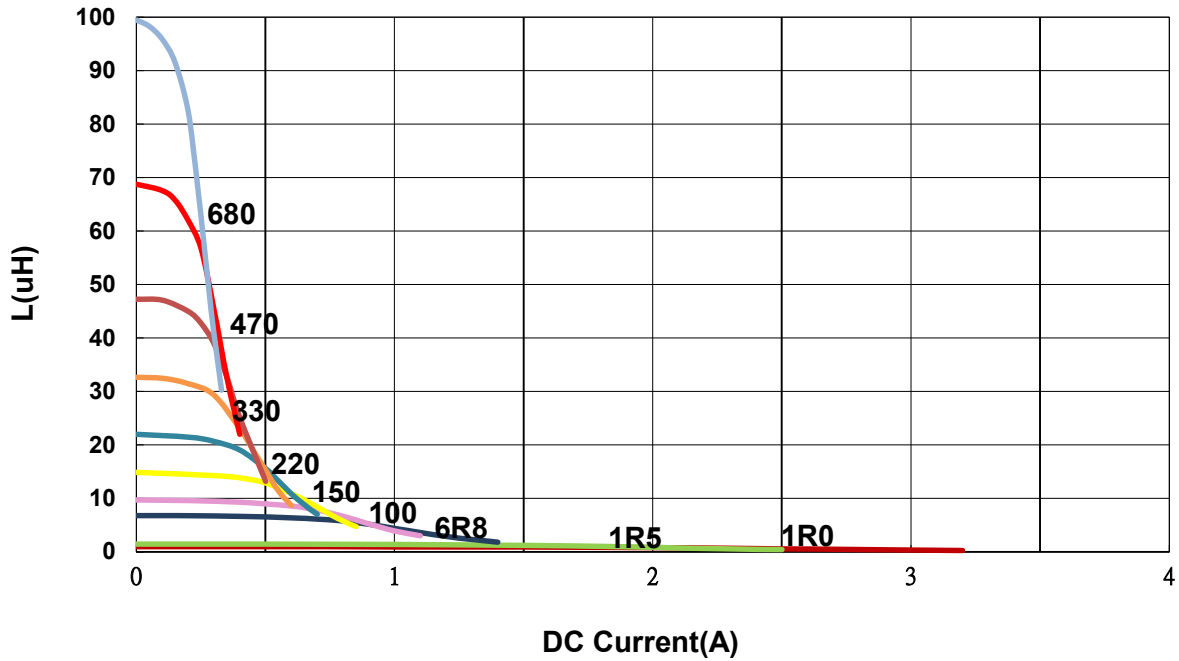
Isat: Agilent HP4284A

I rms: Agilent HP4284A

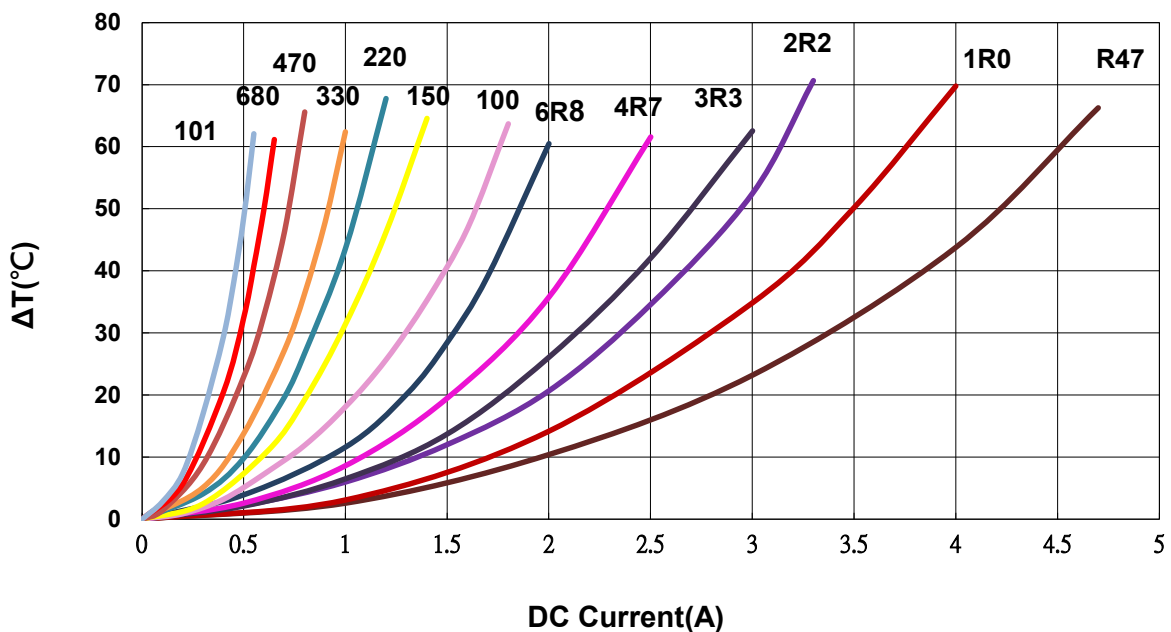
**AWVS00322515 Type**

**Characteristics Graph**

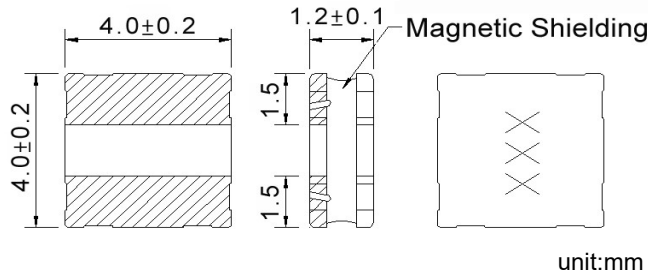
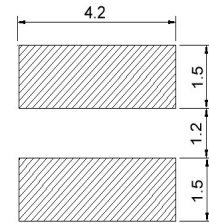
**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



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**AWVS00404012 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
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 (Including self-temperature rise)

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

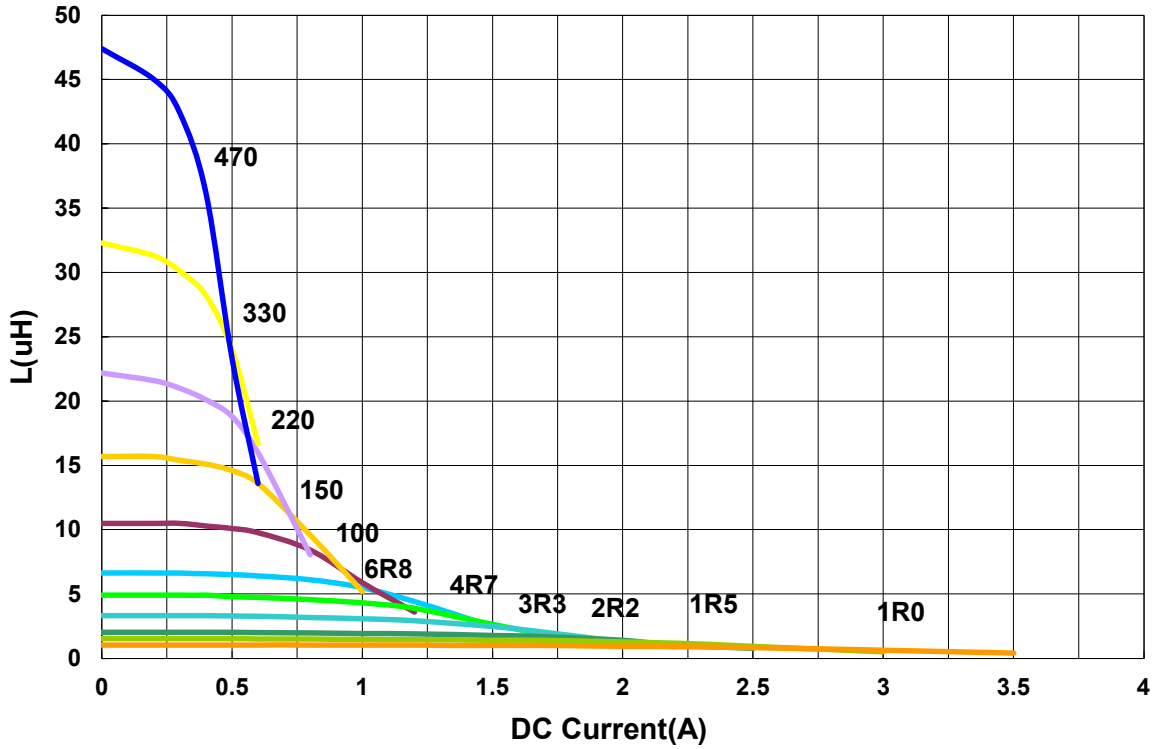
Isat: Agilent HP4284A

Irms: Agilent HP4284A

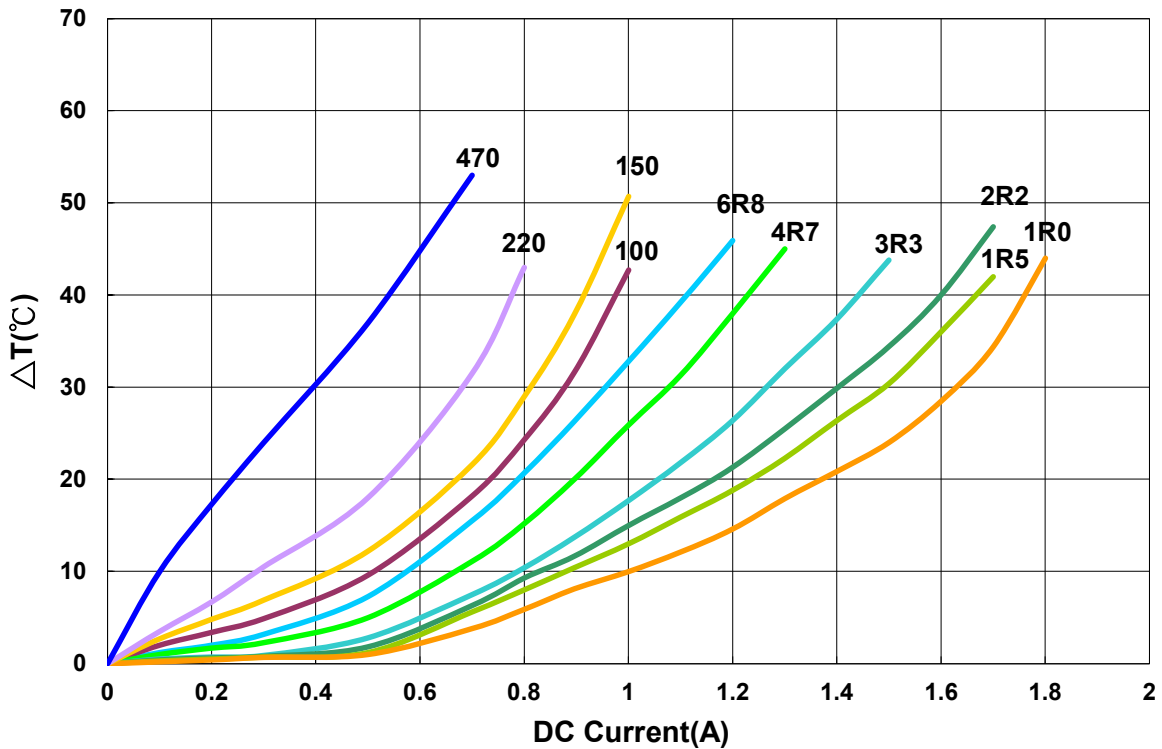
**AWVS00404012 Type**

**Characteristics Graph**

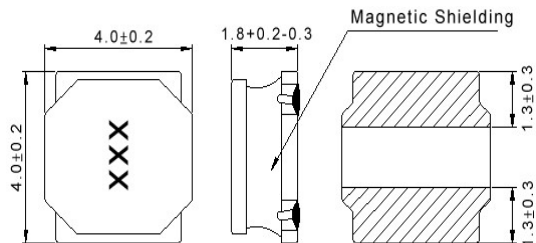
**Inductance vs. DC Current**



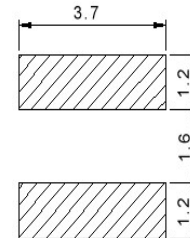
**Temperature Change vs. DC Current**



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**AWVS00404018 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ 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
AWVS00404018121□00	120	100kHz,1V	1600	0.38(0.34)	0.36(0.32)	20,30	121
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%**

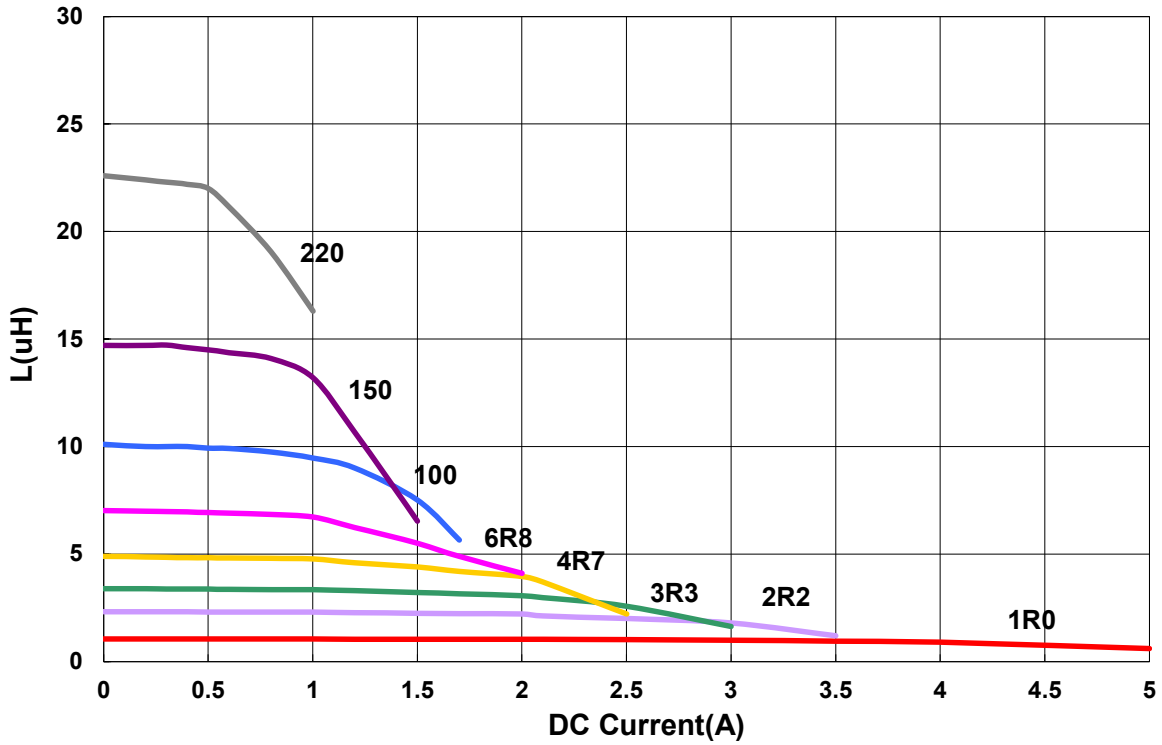
1. Operating temperature range - 40°C ~ 125°C (Including self-temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

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

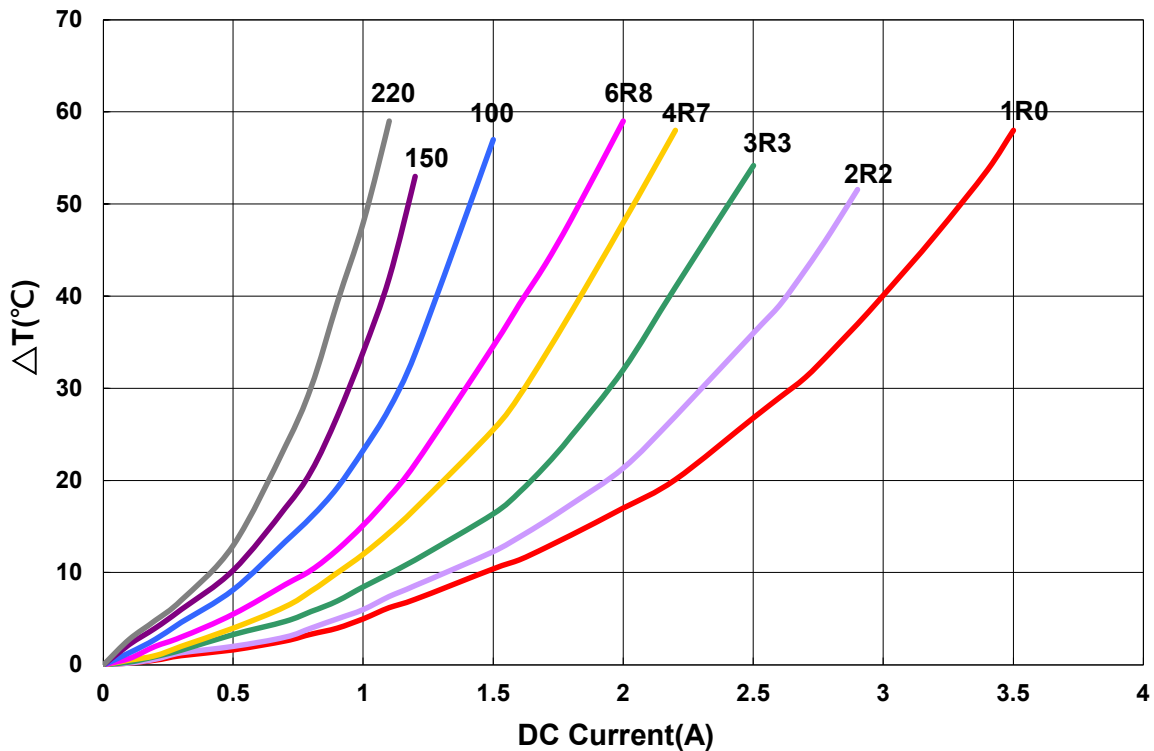
**AWVS00404018 Type**

**Characteristics Graph**

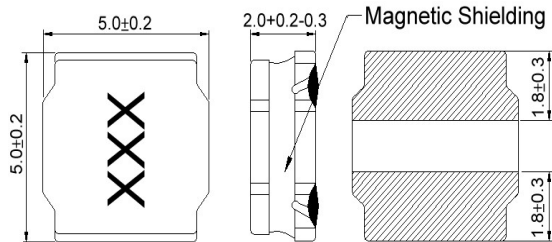
**Inductance vs. DC Current**



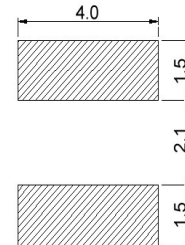
**Temperature Change vs. DC Current**



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**AWVS00505020 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ 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 - 4 0 °C ~ 1 2 5 °C (Including self - temperature rise)

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

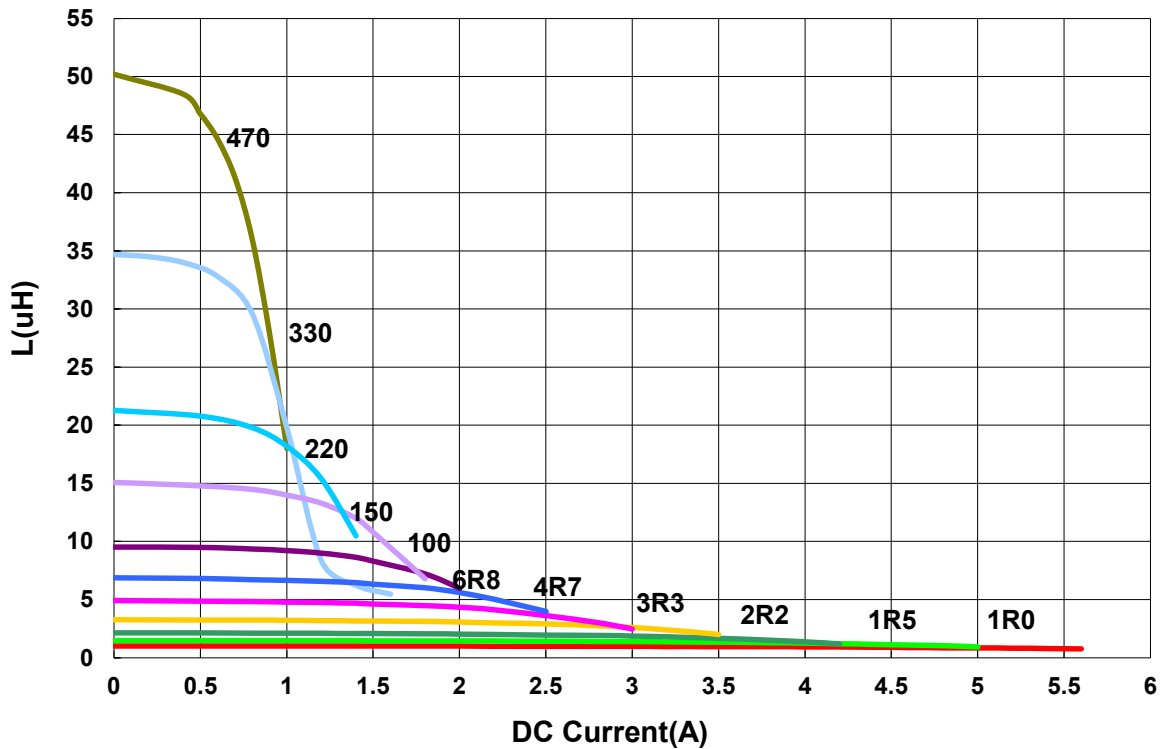
Isat: Agilent HP4284A

I rms: Agilent HP4284A

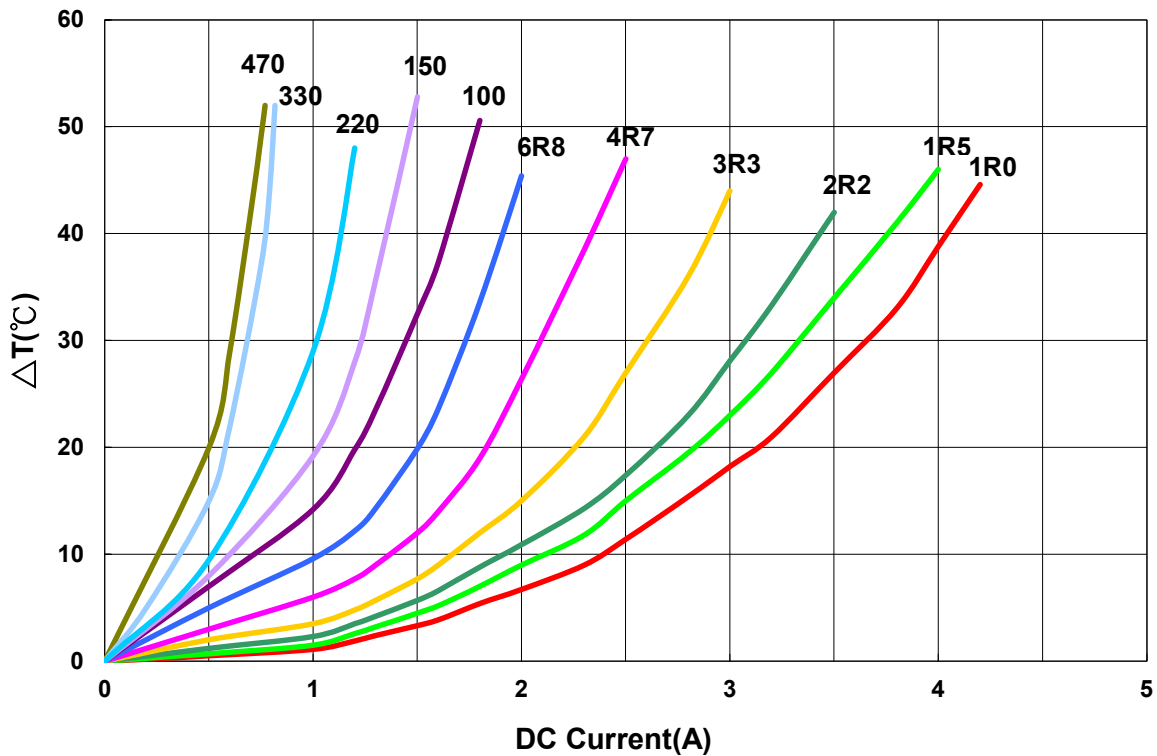
**AWVS00505020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



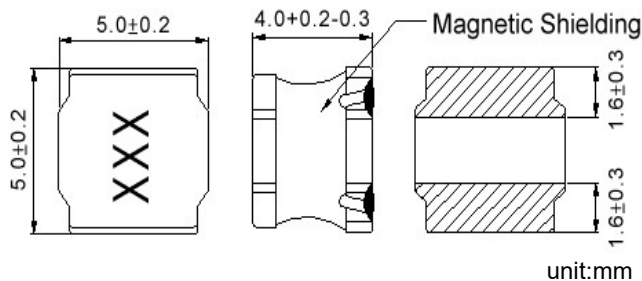
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## Power Inductor AWVS Series

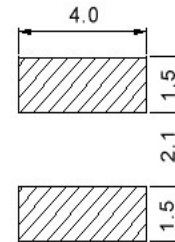
**Automotive  
AEC-Q200**

### 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
AWVS00505040R68□00	0.7	100kHz,1V	10	8.4(7.50)	5.6(5.00)	20,30	R68
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
AWVS005050408R2□00	8.2	100kHz,1V	58	3.10(2.70)	2.30(2.00)	20,30	8R2
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 (Including self - temperature rise)

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

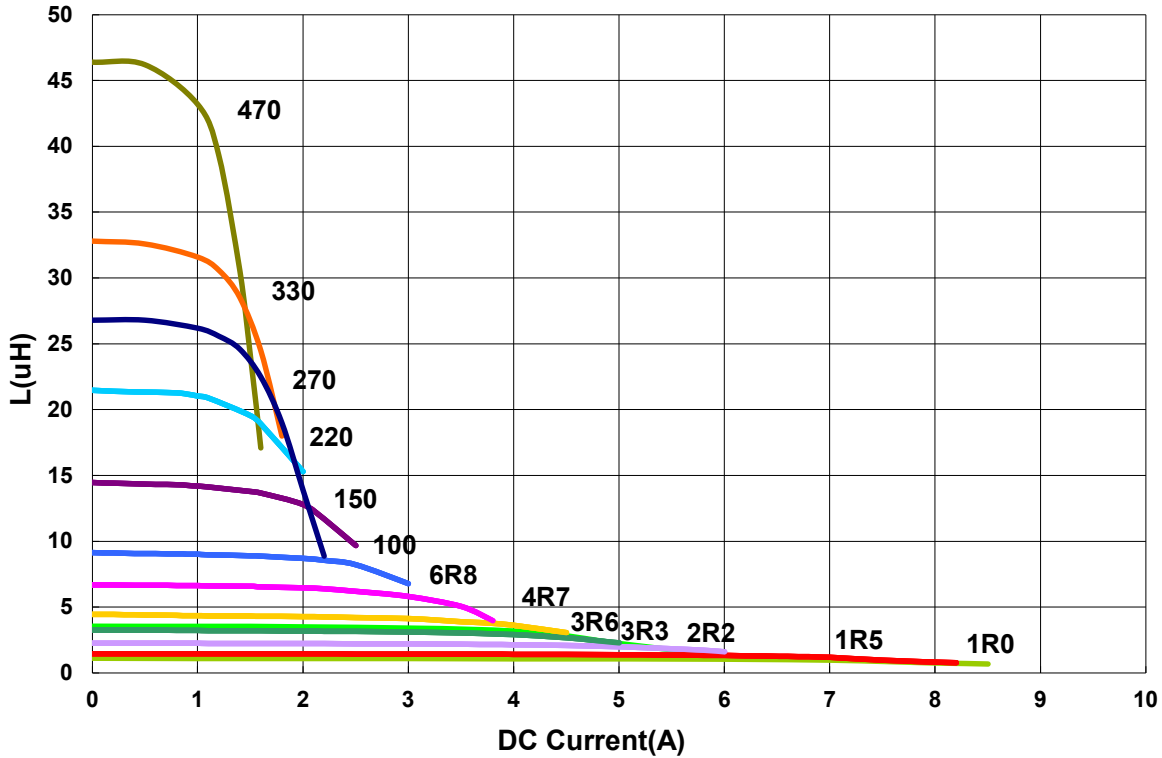
Isat: Agilent HP4284A

I rms: Agilent HP4284A

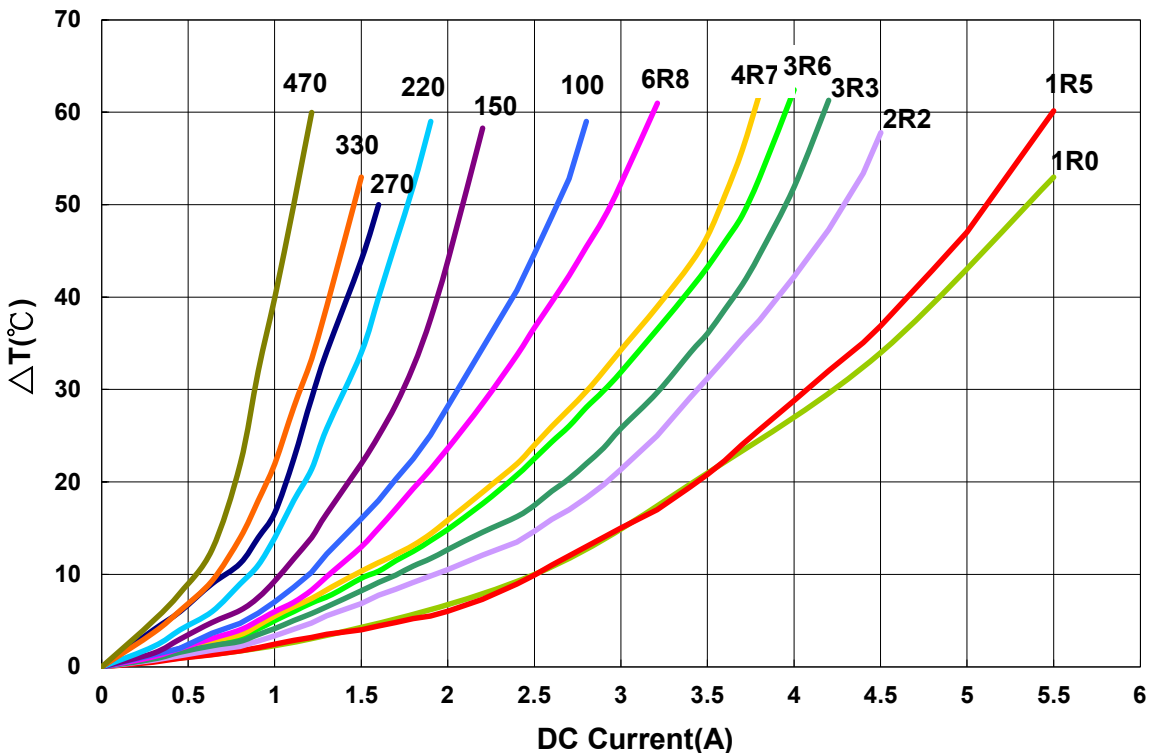
**AWVS00505040 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



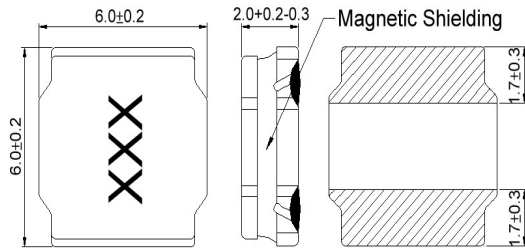
**Temperature Change vs. DC Current**



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.

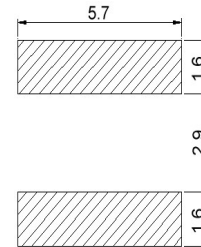
**AWVS00606020 Type**

**■ 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 (Including self-temperature rise)

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

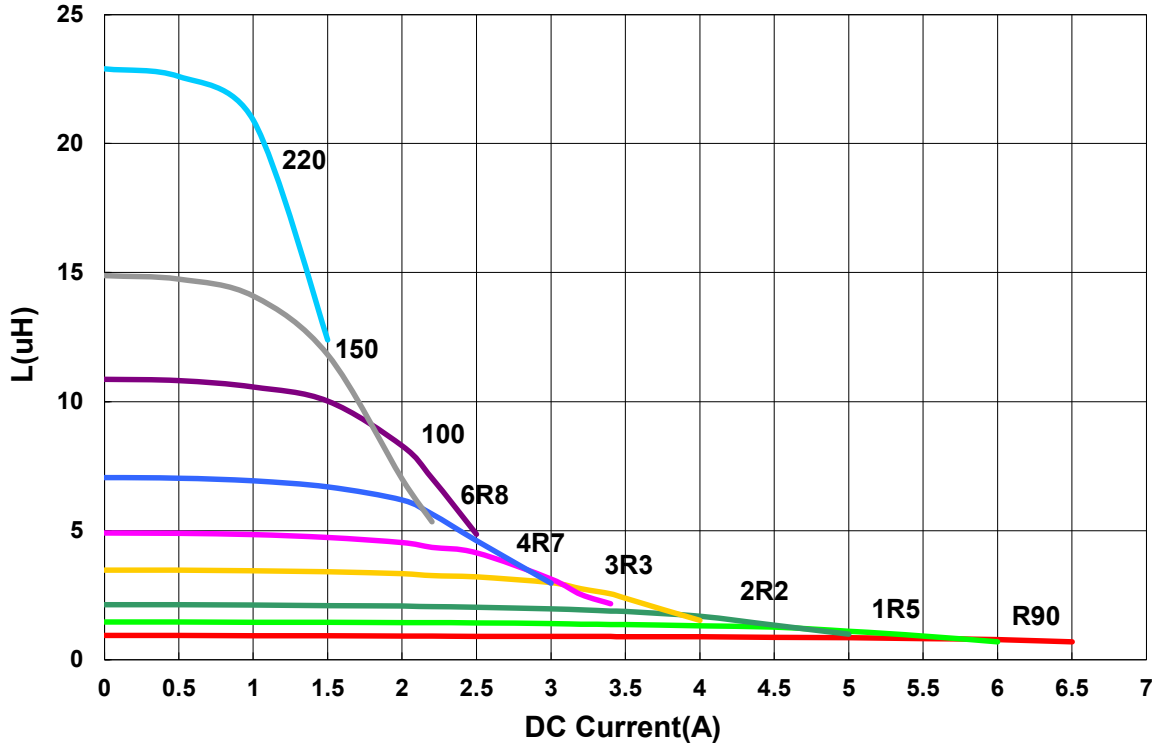
Isat: Agilent HP4284A

I rms: Agilent HP4284A

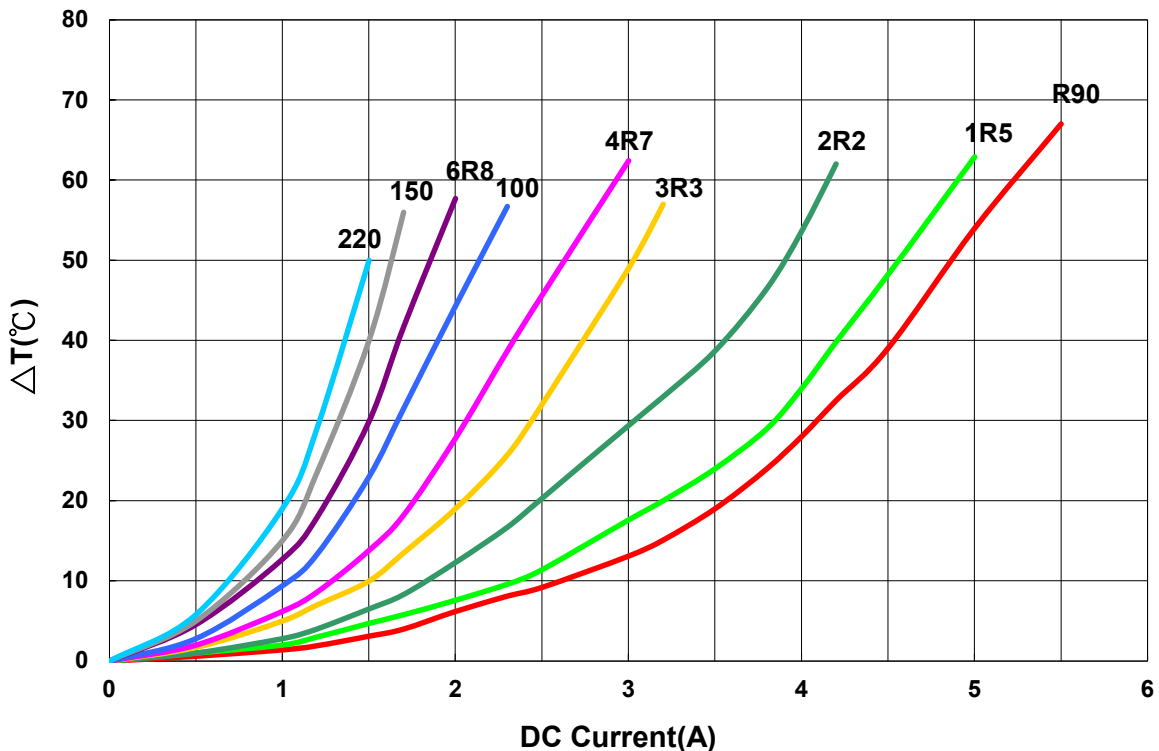
**AWVS00606020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



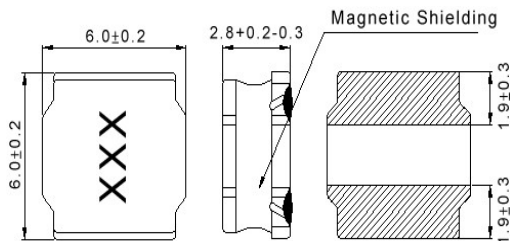
**Temperature Change vs. DC Current**



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.

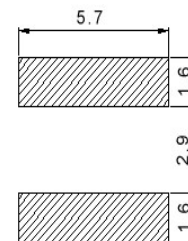
**AWVS00606028 Type**

**■ 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 - 4 0 °C ~ 1 2 5 °C(Including self - temperature rise)

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

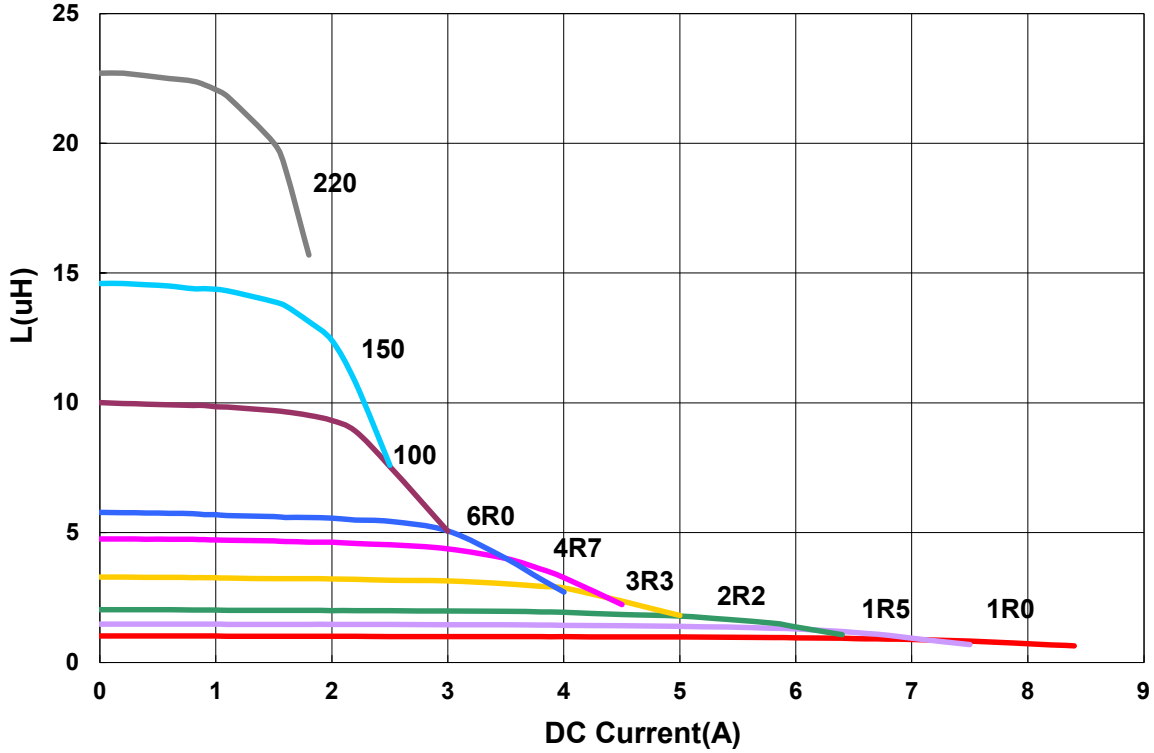
Isat: Agilent HP4284A

Irms: Agilent HP4284A

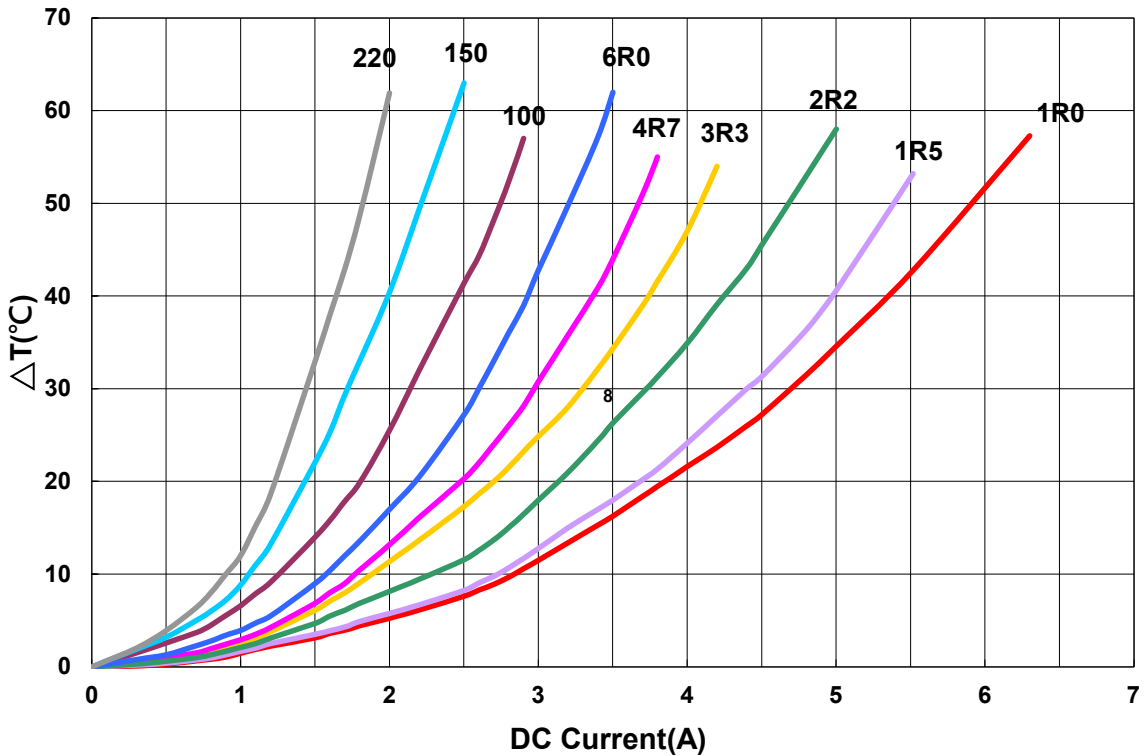
**AWVS00606028 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



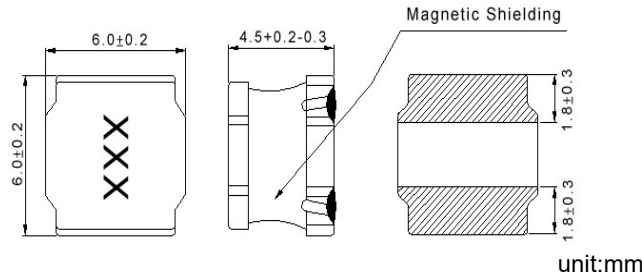
**Temperature Change vs. DC Current**



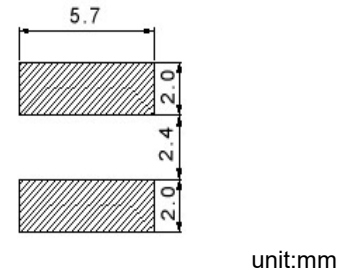
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**AWVS00606045 Type**

**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 - 4 0 °C ~ 1 2 5 °C(Including self - temperature rise)

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

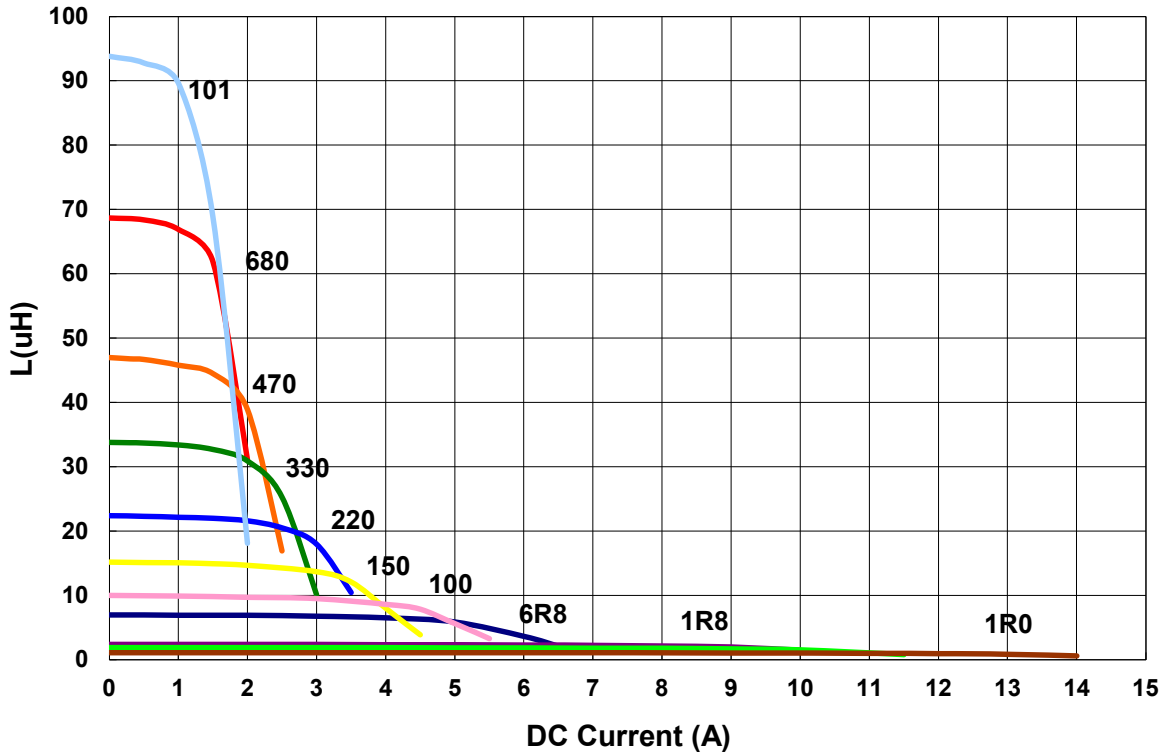
Isat: Agilent HP4284A

I rms: Agilent HP4284A

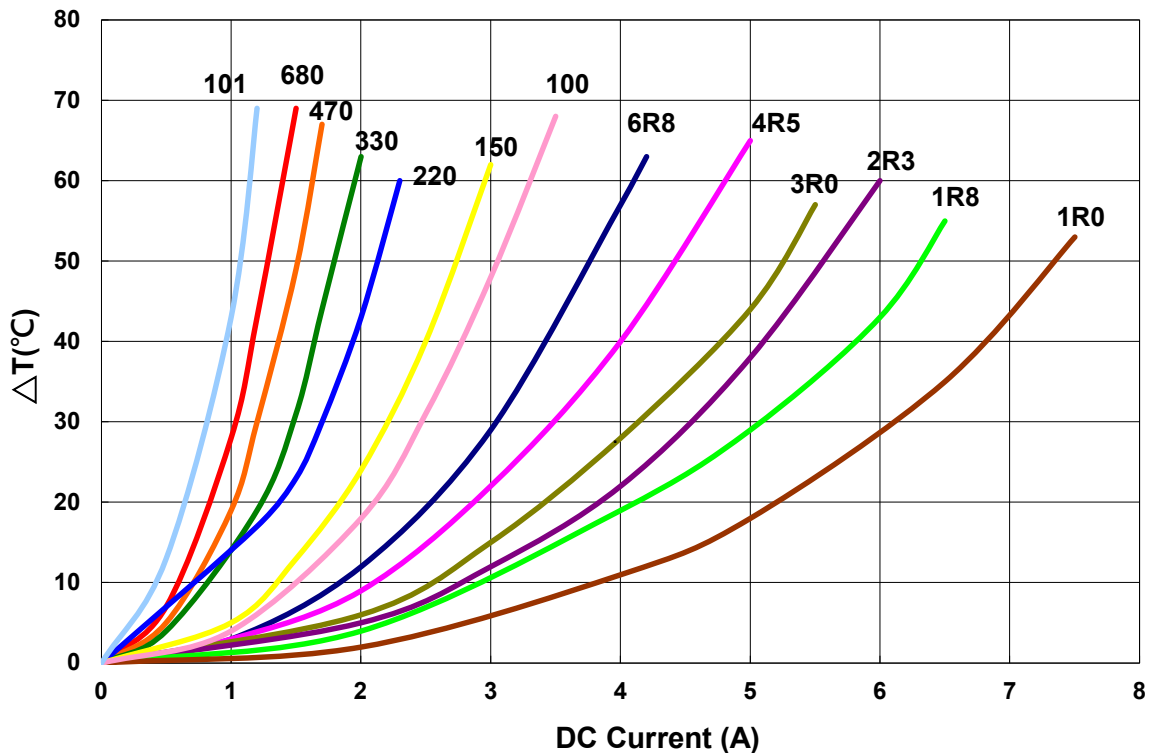
**AWVS00606045 Type**

**Characteristics Graph**

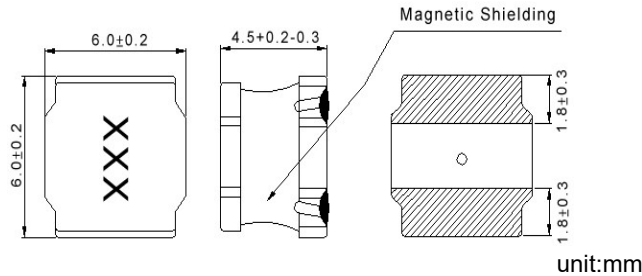
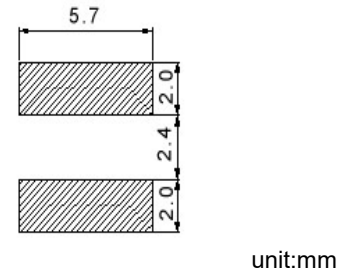
**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



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**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
AWVS00606045R47□L1	0.47	100kHz,1V	8	14(12.0)	8.0(7.20)	30	R47
AWVS00606045R50□L1	0.5	100kHz,1V	9	11(9.90)	8.0(7.20)	30	R50
AWVS00606045R68□L1	0.68	100kHz,1V	10	10(9.00)	7.2(6.48)	20,30	R68
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
AWVS00606045151□L1	150	100kHz,1V	800	0.88(0.79)	0.82(0.73)	20,30	151
AWVS00606045221□L1	220	100kHz,1V	1300	0.75(0.67)	0.65(0.58)	20,30	221

**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. 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

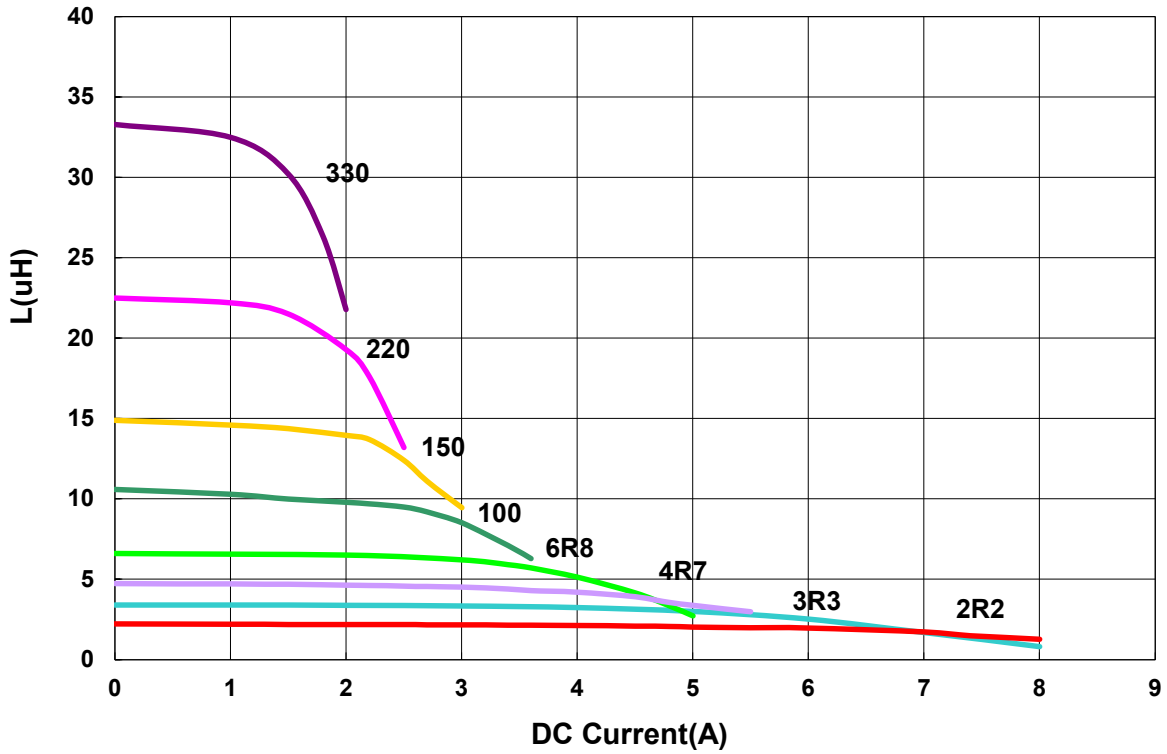
Isat: Agilent HP4284A

I rms: Agilent HP4284A

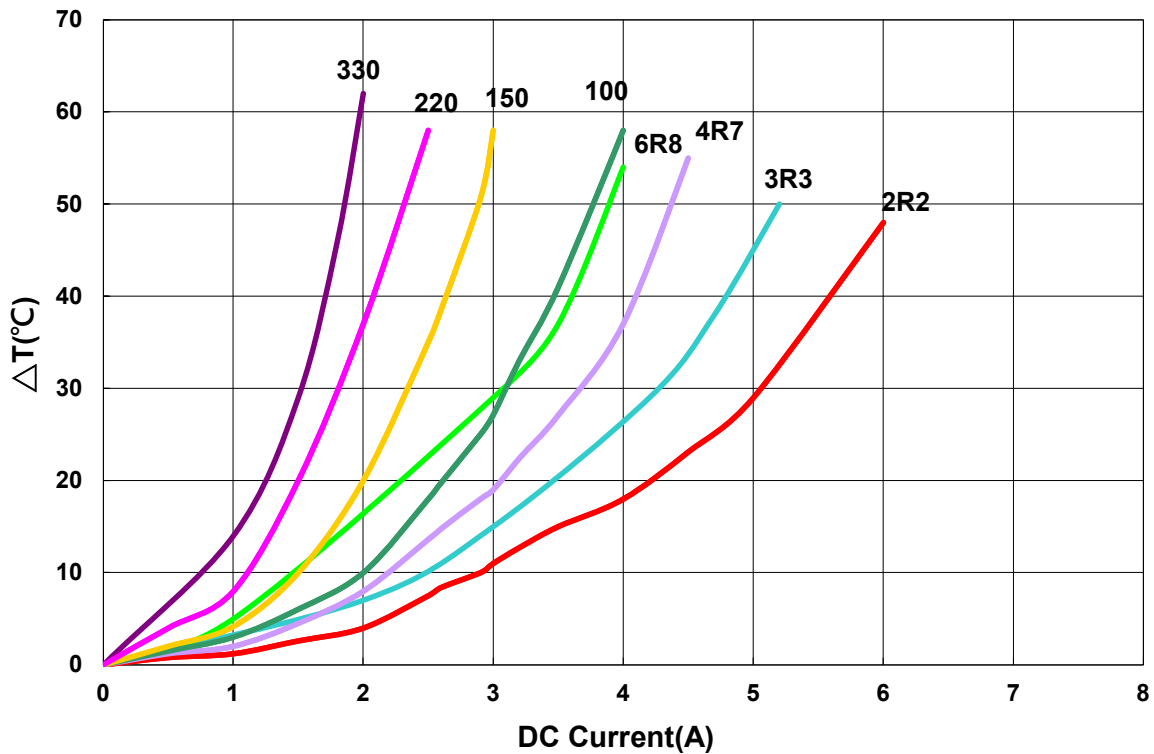
**AWVS00606045 - L1 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



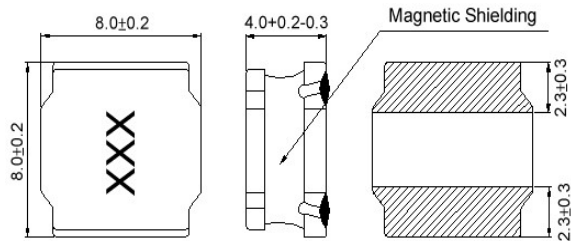
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## Power Inductor AWVS Series

Automotive  
AEC-Q200

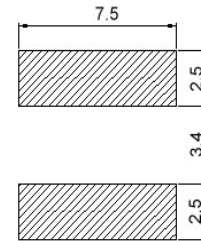
### LVS808040 - AU Type

#### ■ 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
AWVS00808040331□00	330	100kHz,1V	1600	0.80(0.72)	0.46(0.41)	20,30	331
AWVS00808040471□00	470	100kHz,1V	1800	0.70(0.63)	0.40(0.36)	20,30	471
AWVS00808040821□00	820	100kHz,1V	2800	0.40(0.35)	0.38(0.30)	20,30	821

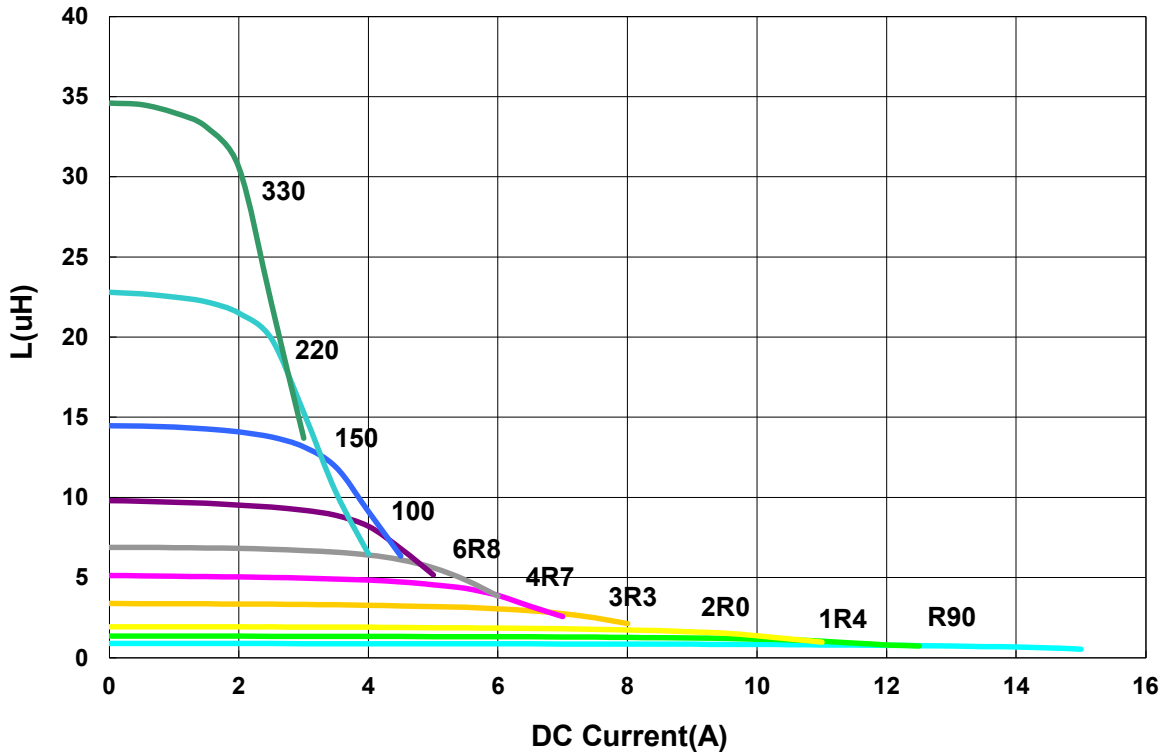
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

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

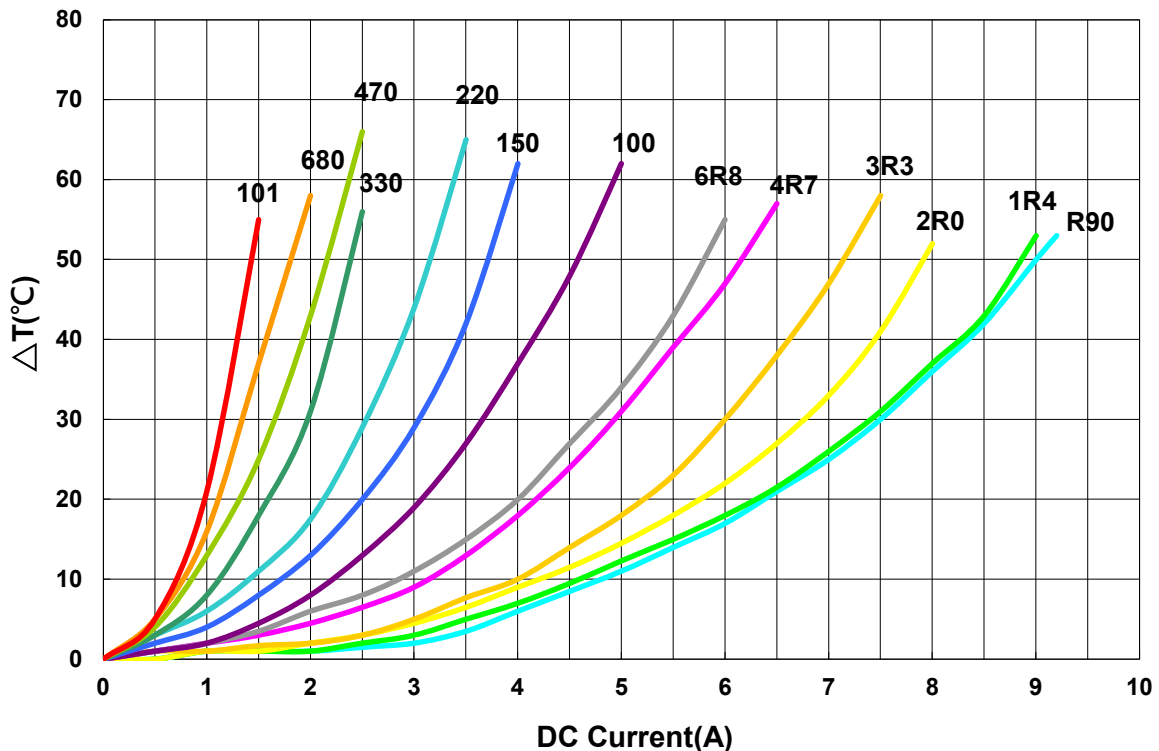
**LVS808040 - AU Type**

**Characteristics Graph**

**Inductance vs. DC Current**



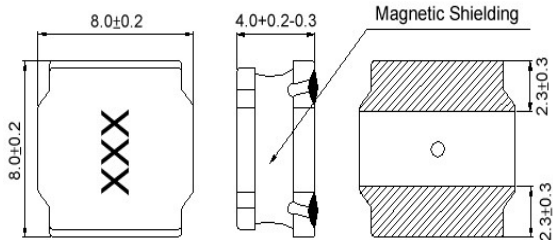
**Temperature Change vs. DC Current**



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.

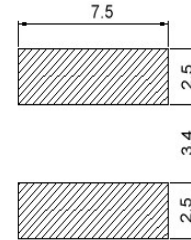
**AWVS00808040 - L1 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ 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
AWVS00808040471□L1	470	100kHz,1V	1690	0.65(0.58)	0.67(0.60)	20,30	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. 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

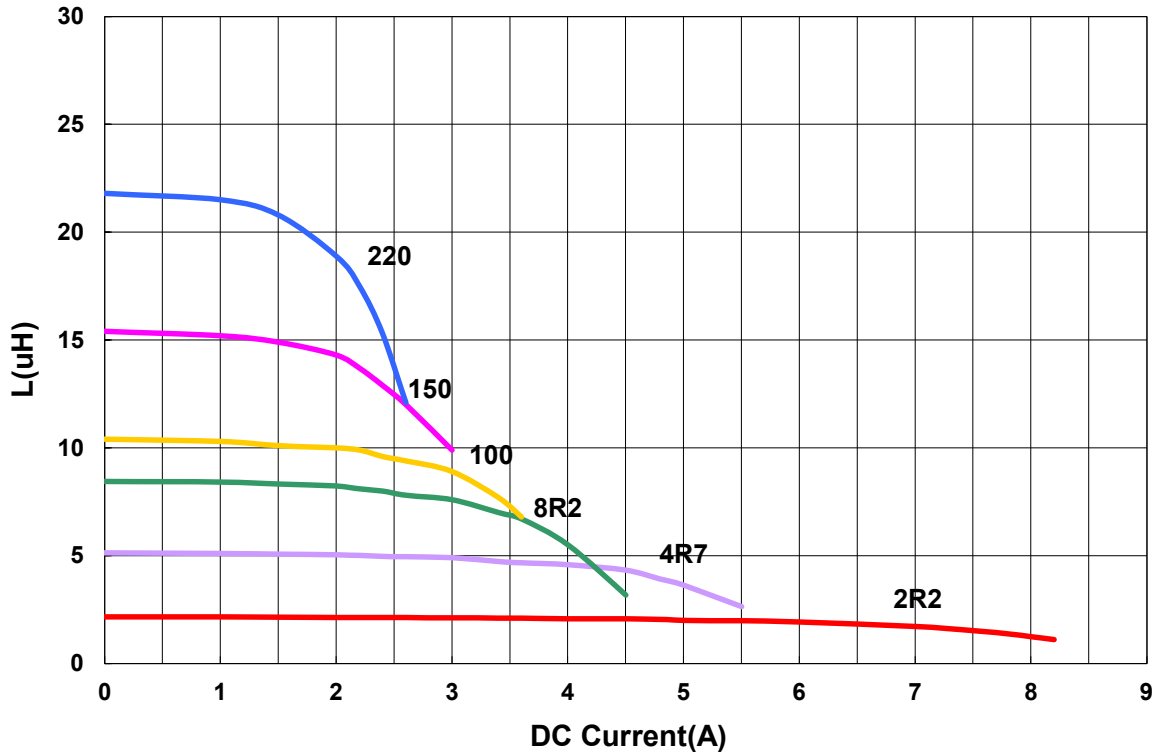
Isat: Agilent HP4284A

Irms: Agilent HP4284A

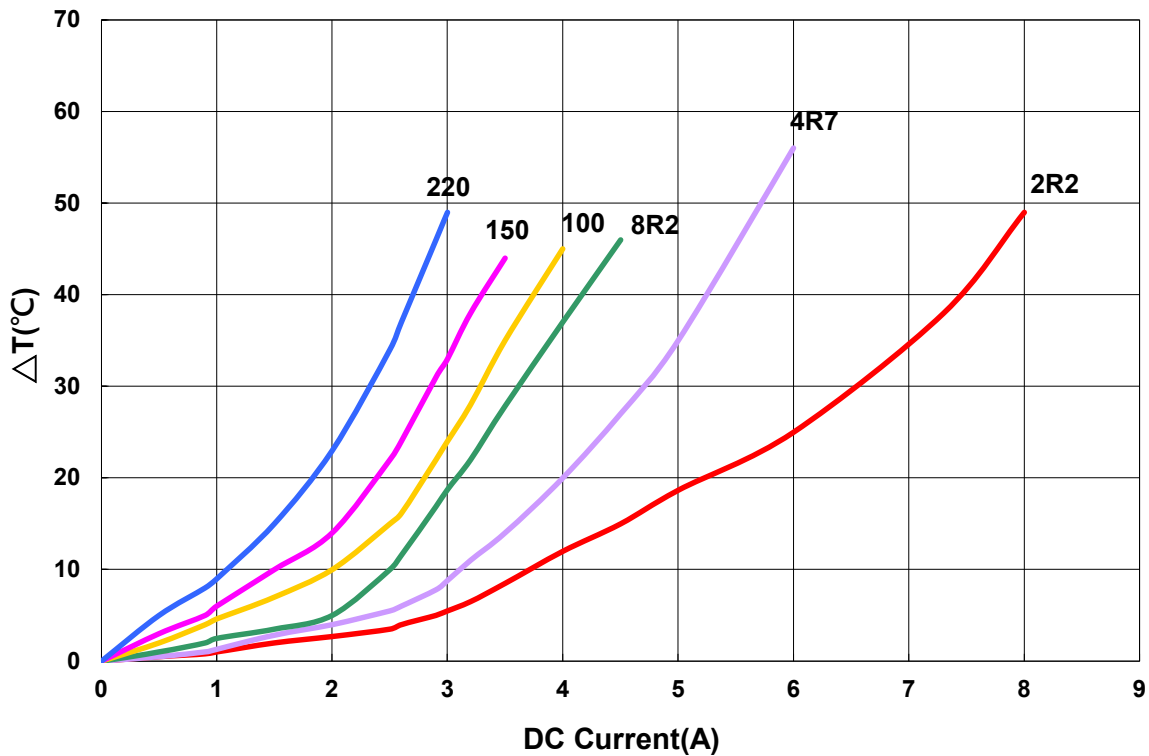
**AWVS00808040 - L1 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



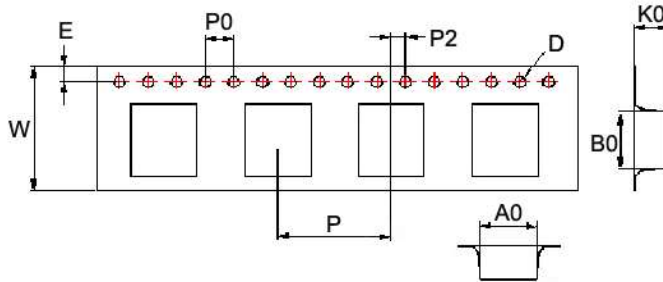
**Temperature Change vs. DC Current**



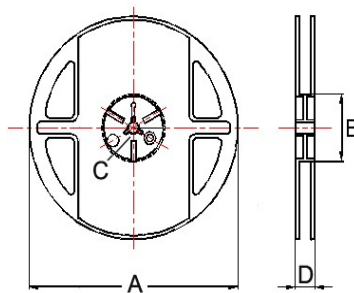
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**■ Packaging**

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
AWVS00322515	2.85	3.56	1.8	1.55	1.75	5.5	8	4	4	2	178	60	9	1.5	2000
AWVS00404012	4.25	4.25	1.3	1.55	1.75	5.5	12	8	4	2	180	60	13	13.2	1000
AWVS00404018	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	800
AWVS00505020	5.25	5.25	2.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	2000
AWVS00505040	5.2	5.2	4.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	1500
AWVS00606020	6.25	6.25	2.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	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

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