

Power Inductor AWT Series

Automotive
AEC-Q200

RoHS Compliant
 Halogen Free
 REACH Compliant


 Power
Circuit

Shield

 Magnetic
Resin LVx

Ferrite

 High
Current

Part Numbering

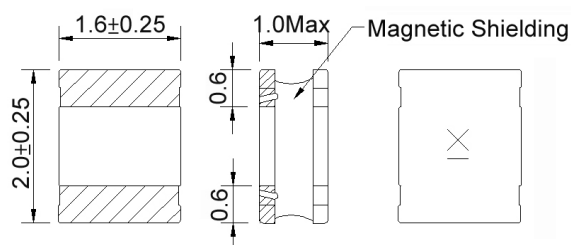
A	WVT	00	252012	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			201610 2.0x1.6x1.0	R47 0.47	M ±20%	
			252010 2.5x2.0x1.02	1R0 1.0	T ±30%	
			252012 2.5x2.0x1.2	101 100		
			303010 3.0x3.0x1.02			
			303012 3.0x3.0x1.2			
			404012 4.0x4.0x1.2	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

Power Inductor AWT Series

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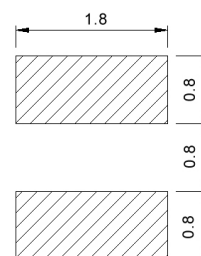
AWVT00201610 Type

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
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%

1. Operating temperature range — 40℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current.

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

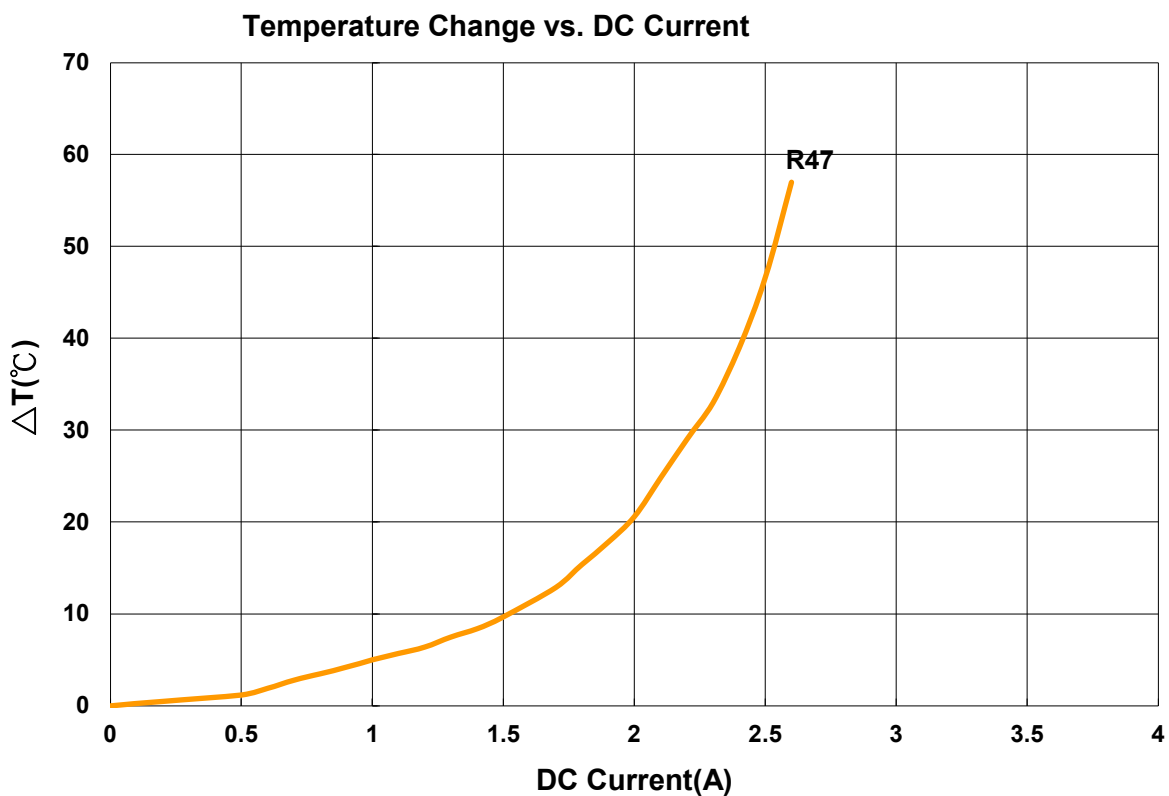
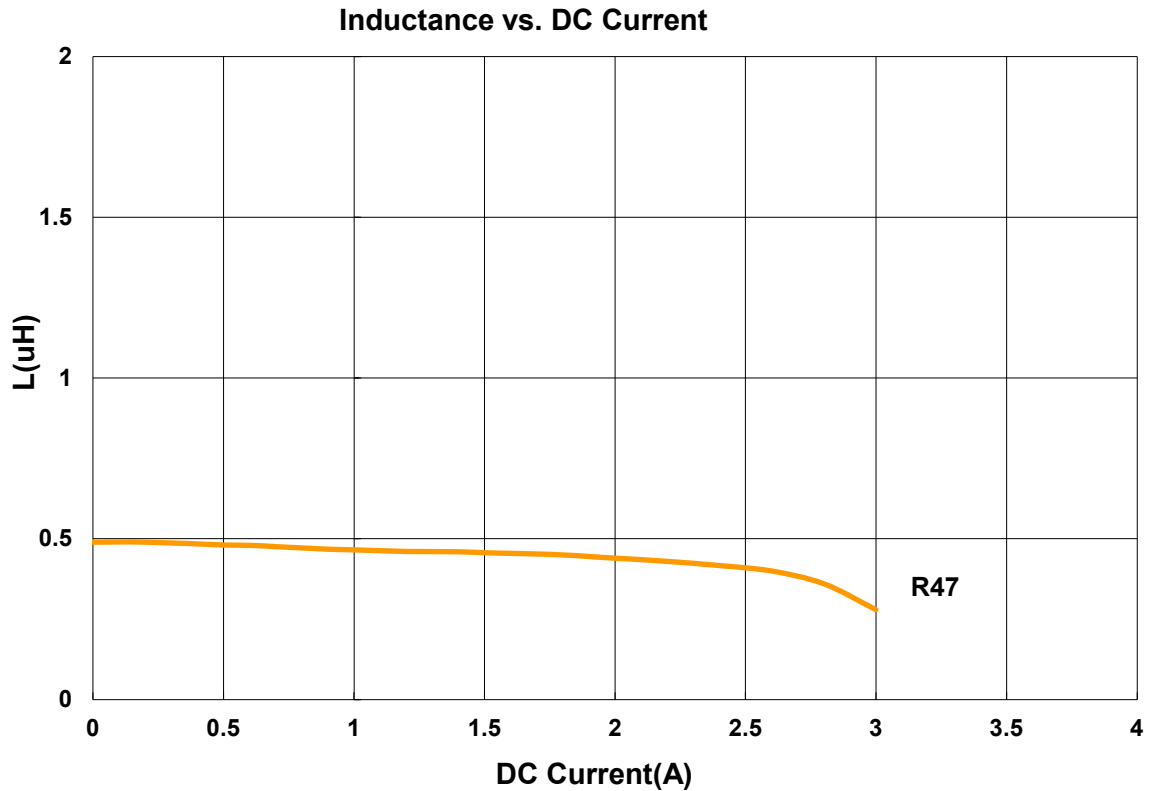
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

Irms: Agilent HP4284A

AWVT00201610 Type

■ Characteristics Graph



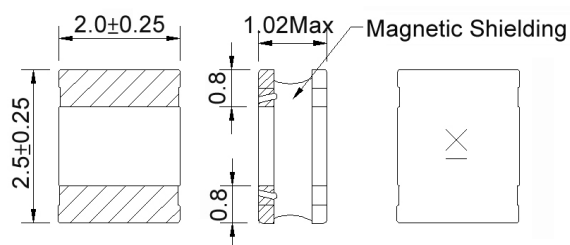
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

Power Inductor AWVT Series

Automotive
AEC-Q200

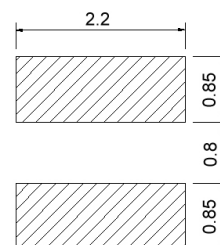
AWVT00252010 Type

■ 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℃～125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current.

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

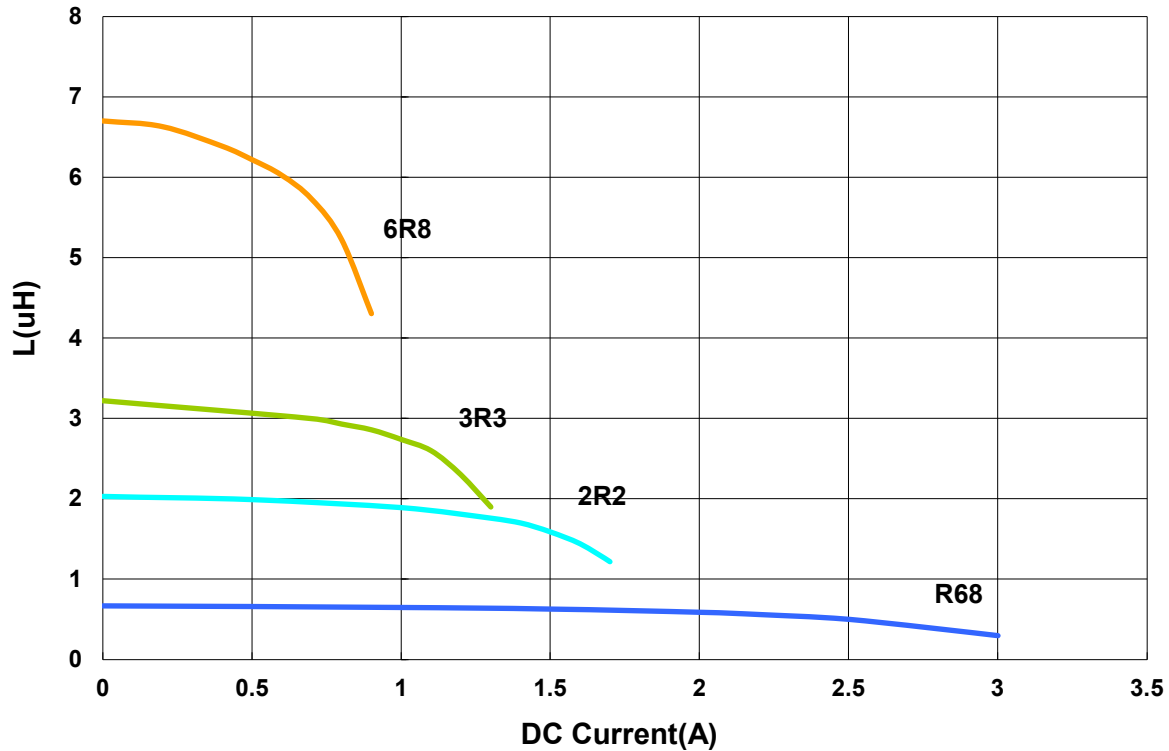
Isat: Agilent HP4284A

Irms: Agilent HP4284A

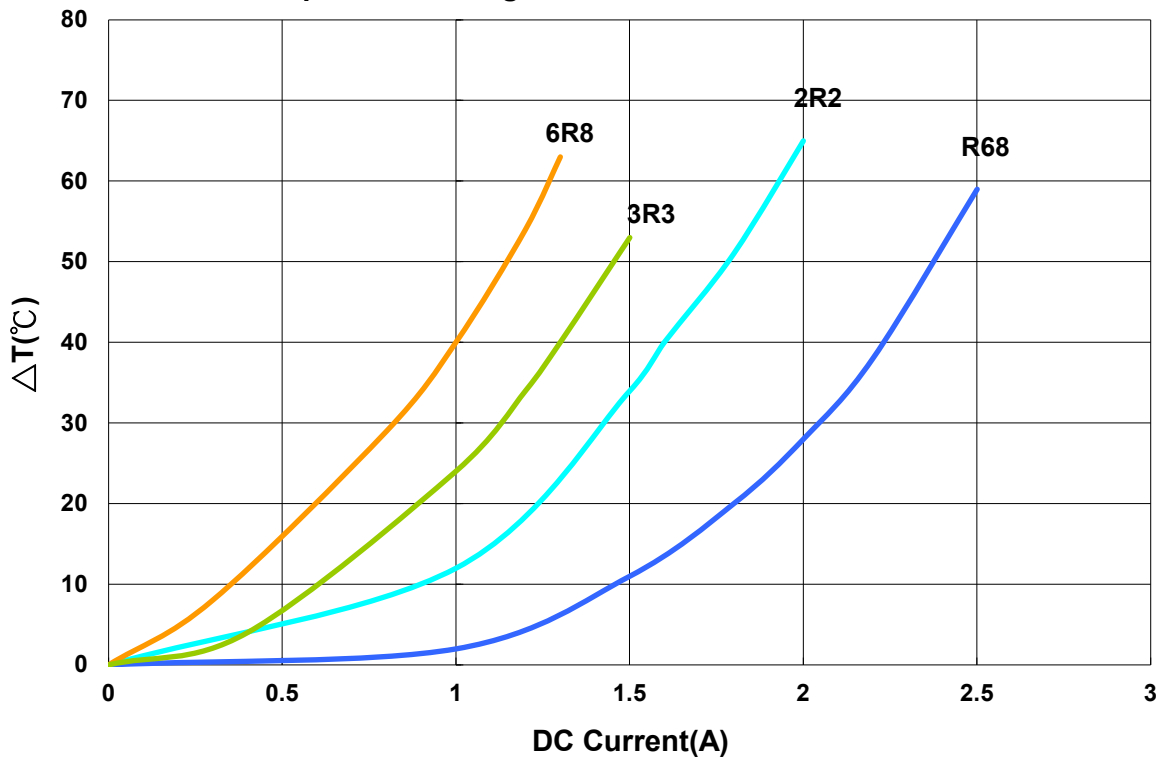
AWVT00252010 Type

Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



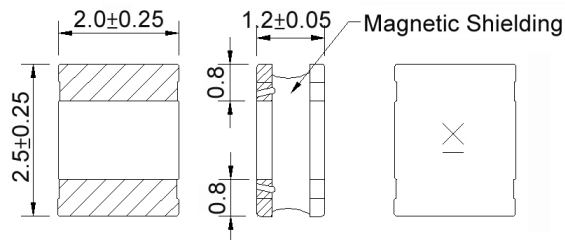
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Power Inductor AWVT Series

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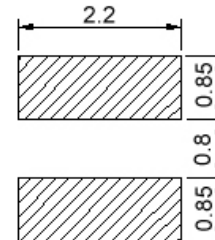
AWVT00252012 Type

■ 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
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%

1. Operating temperature range — 40℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current.

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

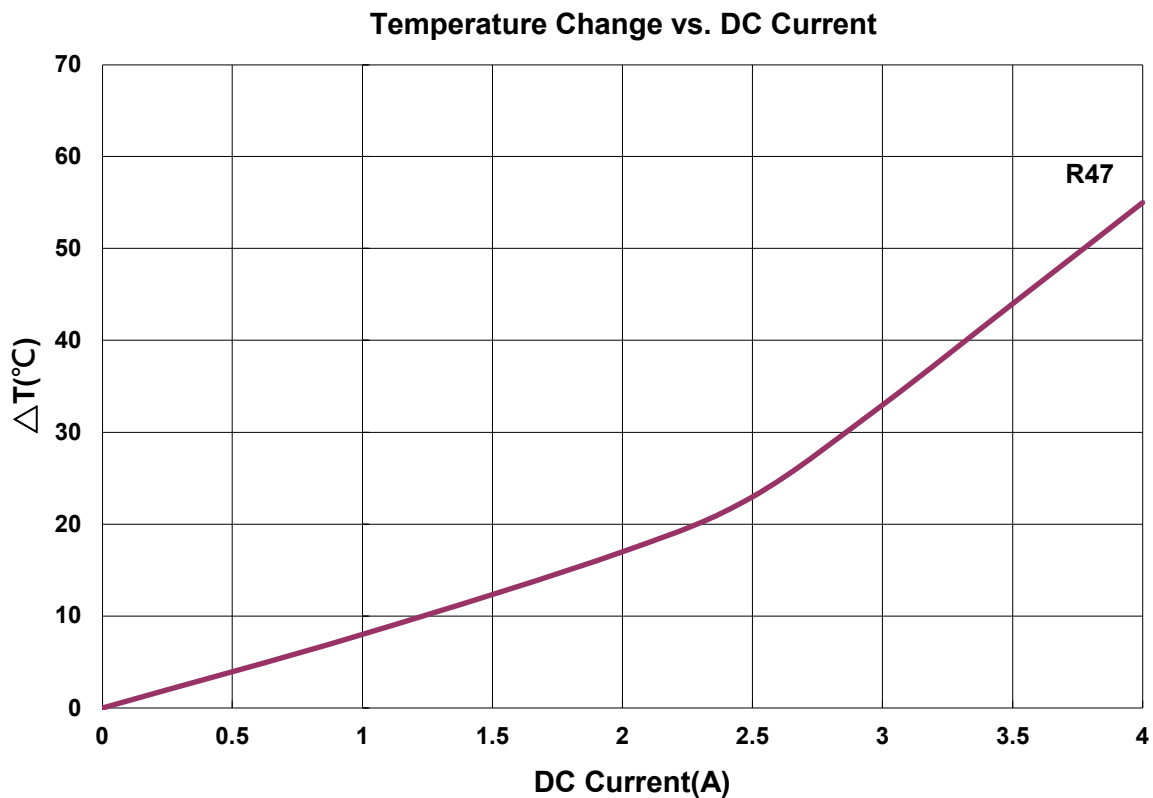
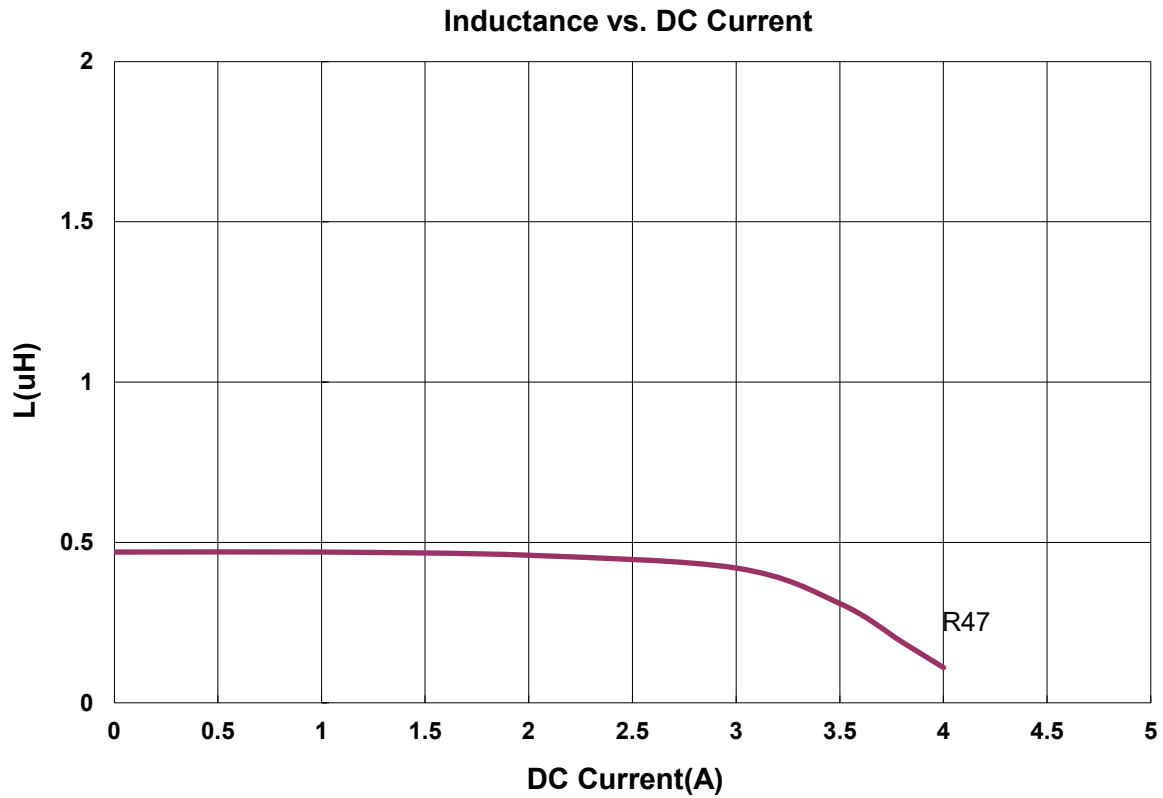
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

Irms: Agilent HP4284A

AWVT00252012 Type

Characteristics Graph

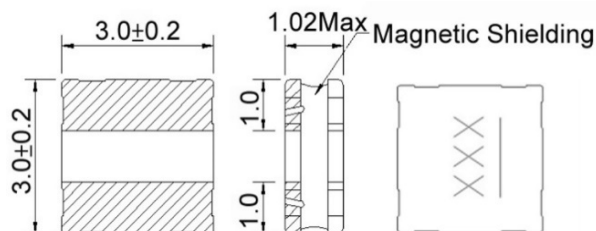


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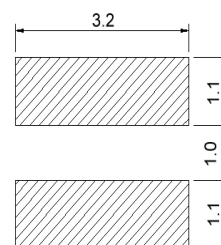
AWVT00303010 Type

■ 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℃~125℃(Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current.

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

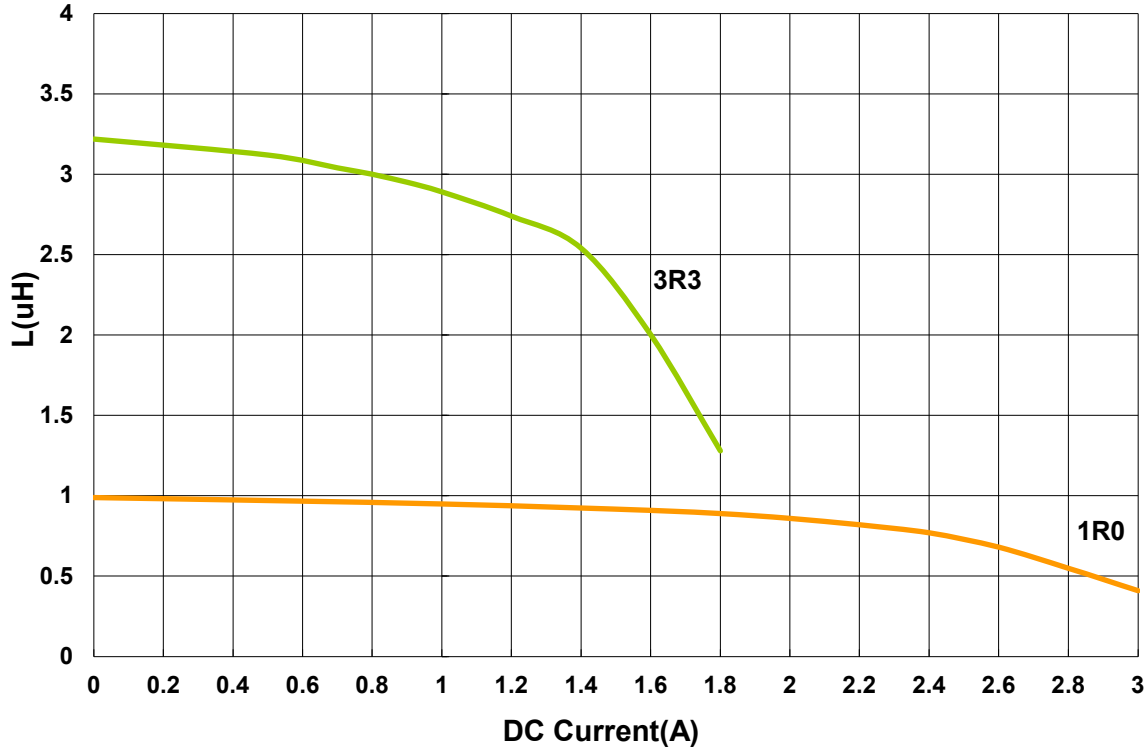
Isat: Agilent HP4284A

Irms: Agilent HP4284A

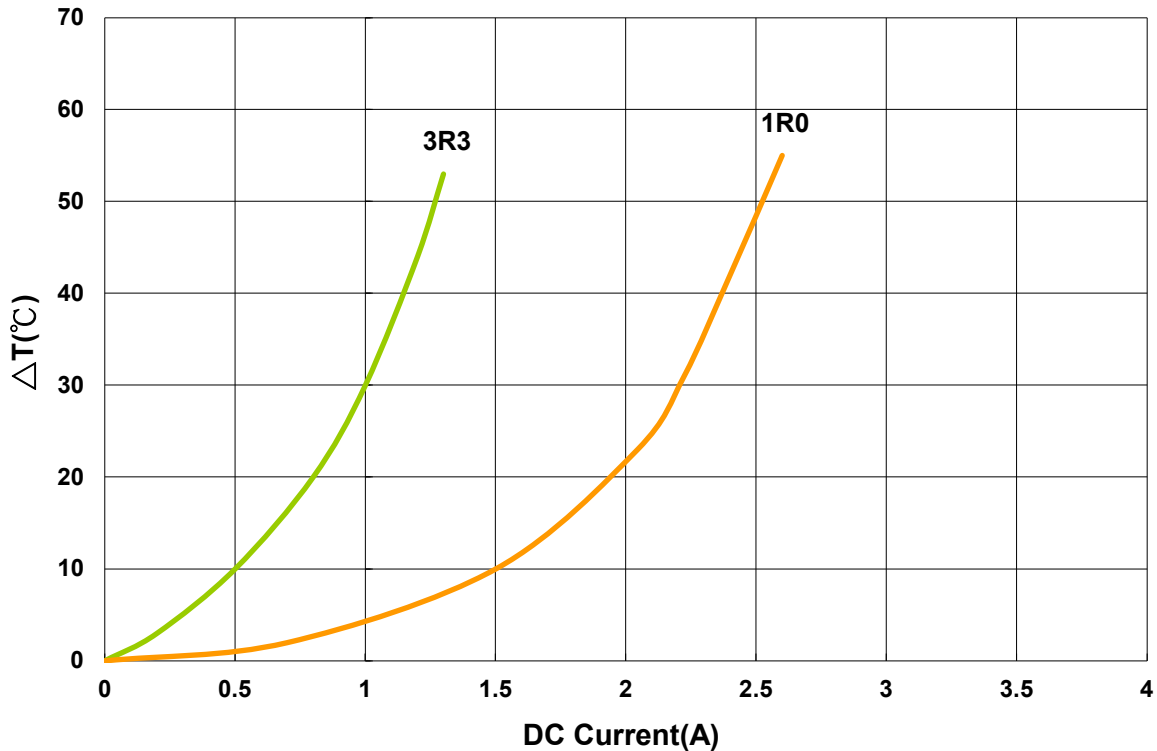
AWVT00303010 Type

Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



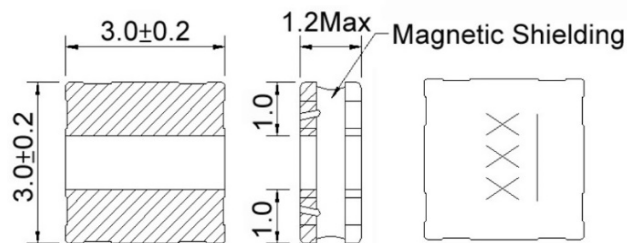
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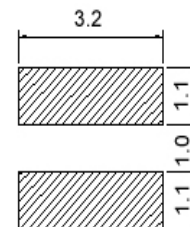
AWVT00303012 Type

■ 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℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current.

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

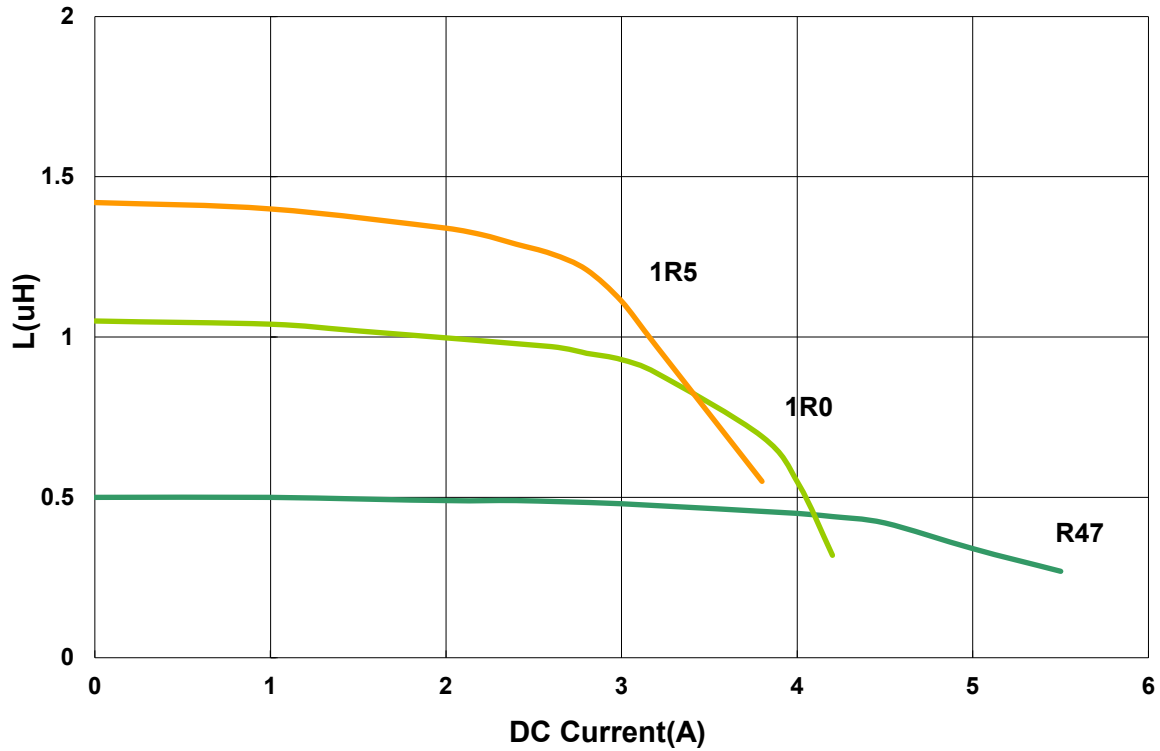
Isat: Agilent HP4284A

Irms: Agilent HP4284A

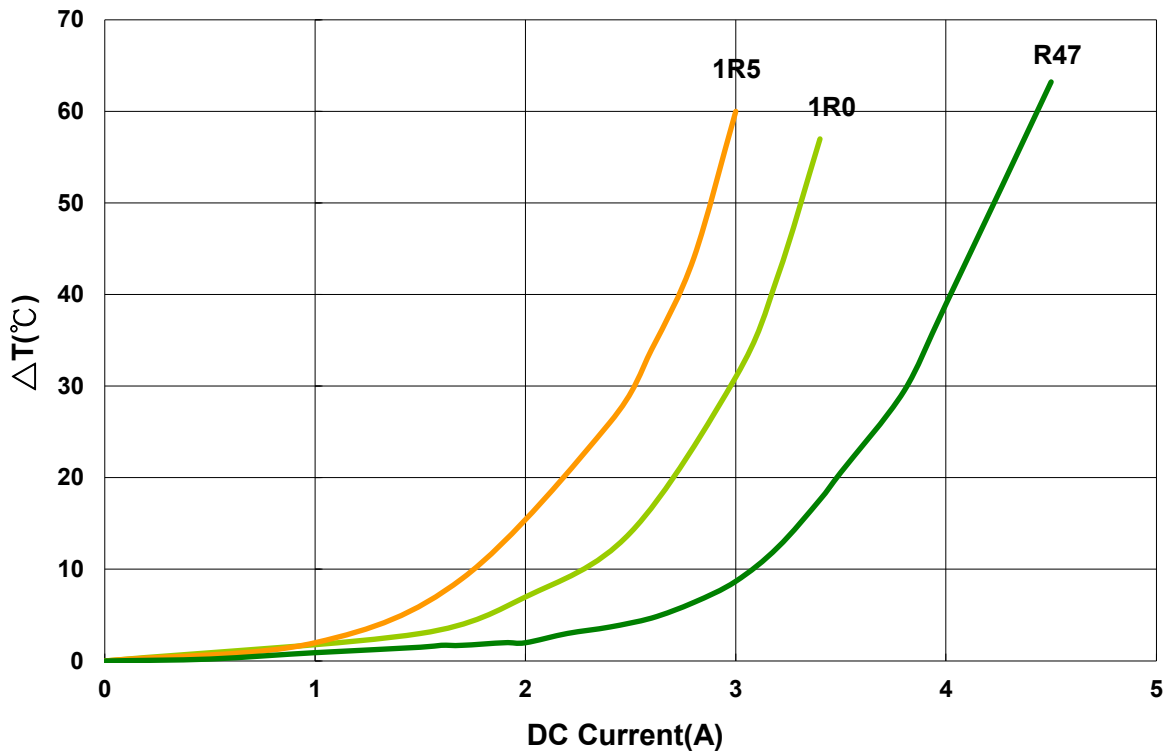
AWVT00303012 Type

■ Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



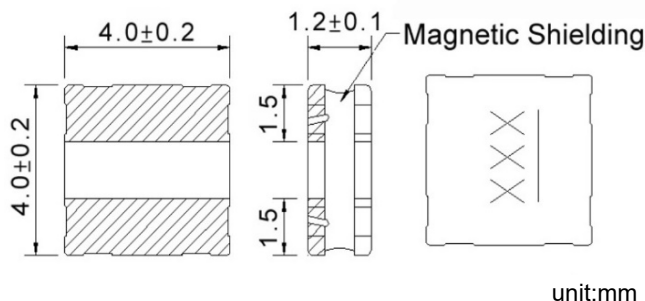
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Power Inductor AWT Series

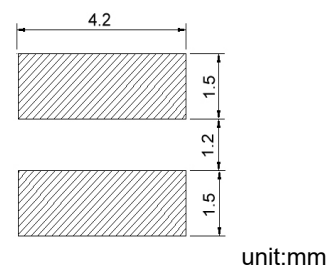
Automotive
AEC-Q200

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
AWVT00404012R47□00	0.5	1MHz,200mV	0.030	4.20(3.70)	3.90(3.50)	20,30	R47
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℃~125℃(Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

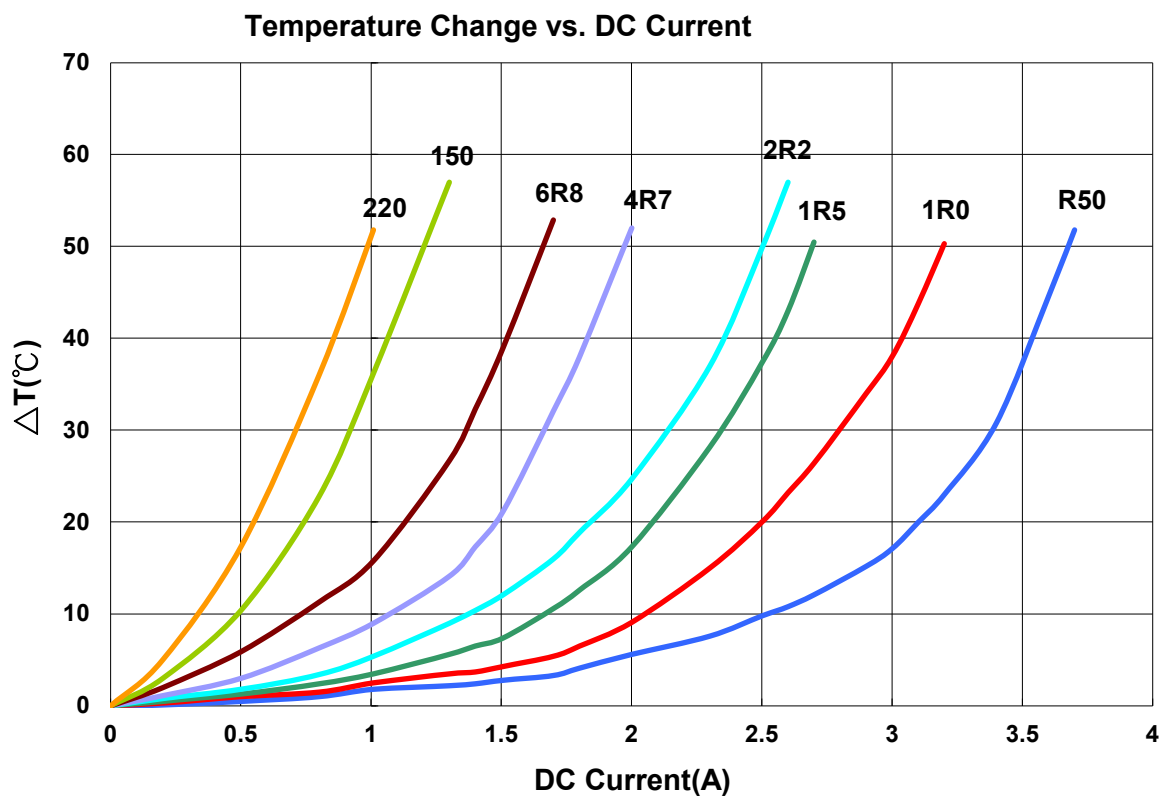
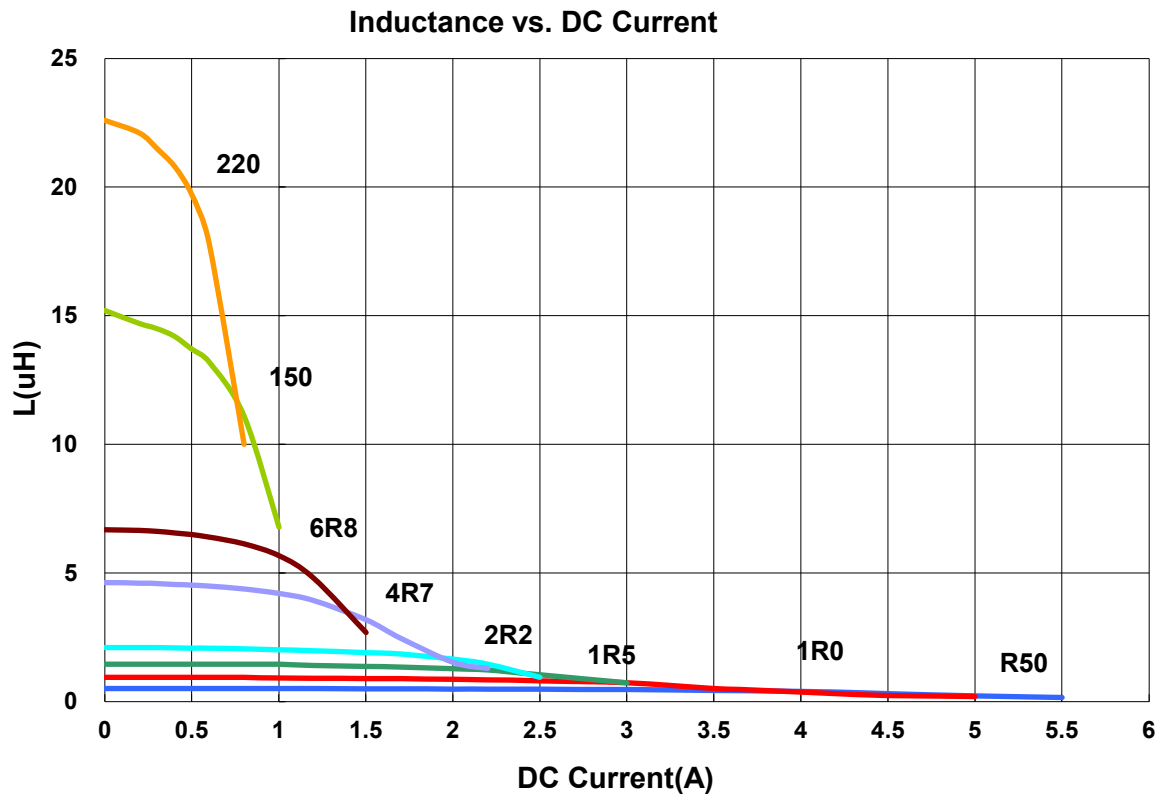
Irms: Agilent HP4284A

Power Inductor AWT Series

Automotive
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AWVT00404012 Type

■ Characteristics Graph



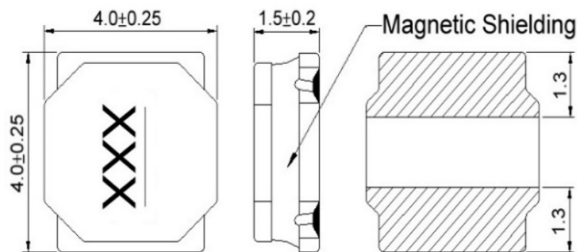
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AEC-Q200

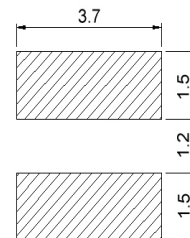
AWVT00404015 Type

■ 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
AWVT004040151R0□00	1.0	1MHz,200mV	0.034	3.6(3.20)	3.7(3.30)	20,30	1R0
AWVT004040152R2□00	2.2	1MHz,200mV	0.054	2.60(2.34)	2.70(2.43)	20,30	2R2
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℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

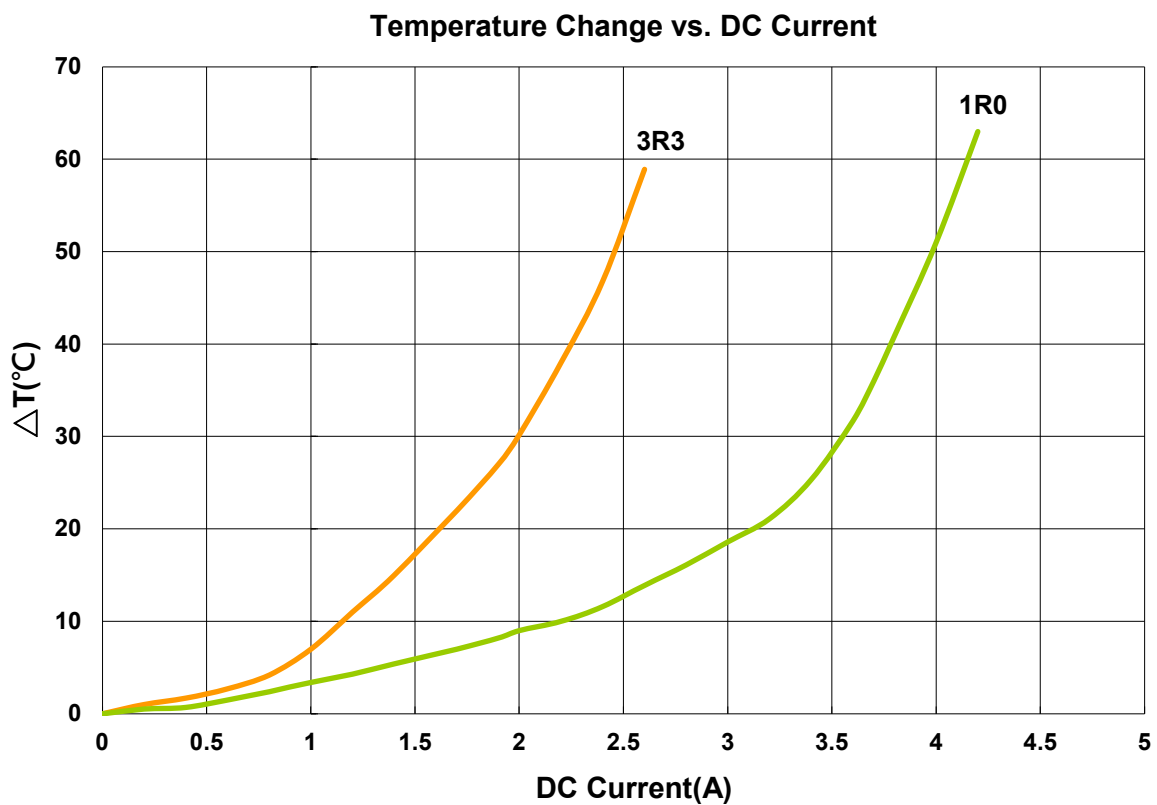
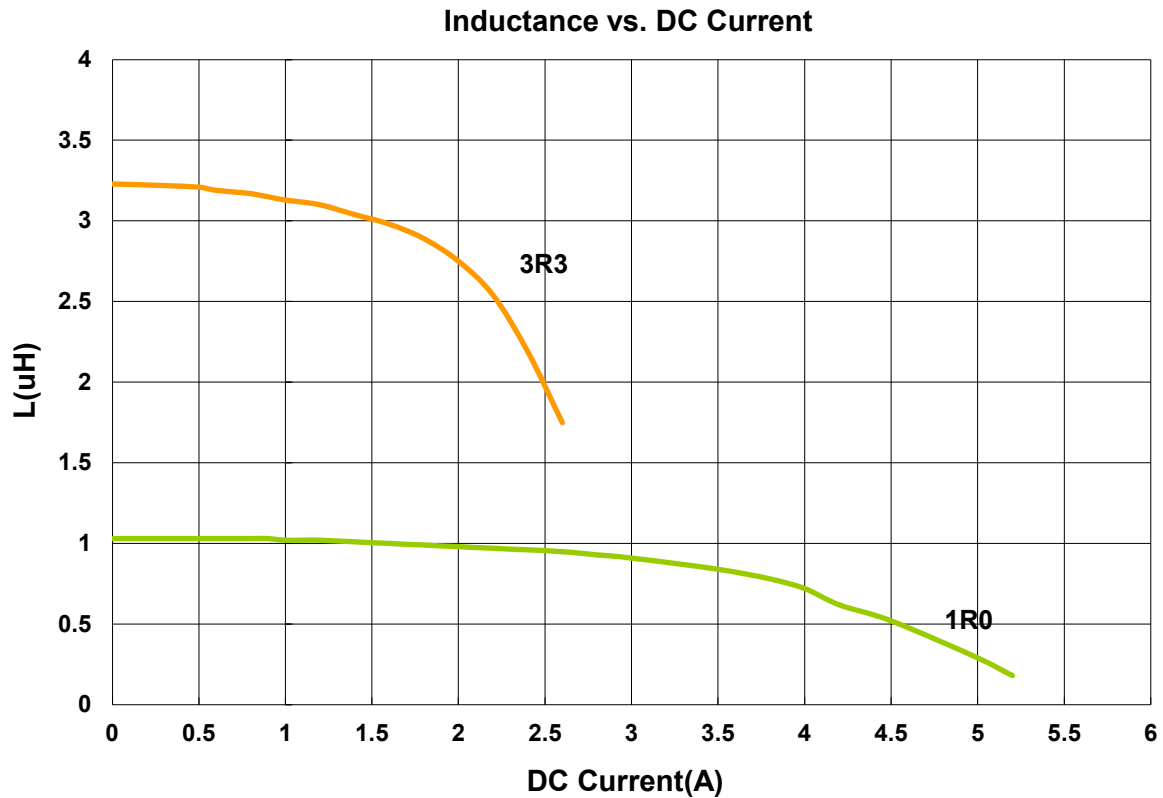
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Isat: Agilent HP4284A

Irms: Agilent HP4284A

AWVT00404015 Type

Characteristics Graph

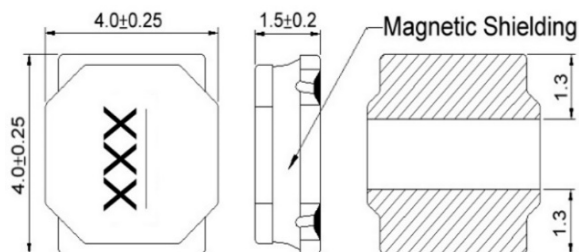


Power Inductor AWT Series

Automotive
AEC-Q200

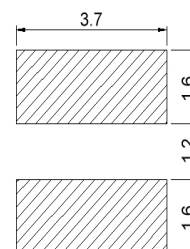
AWVT00404026 Type

■ 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℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

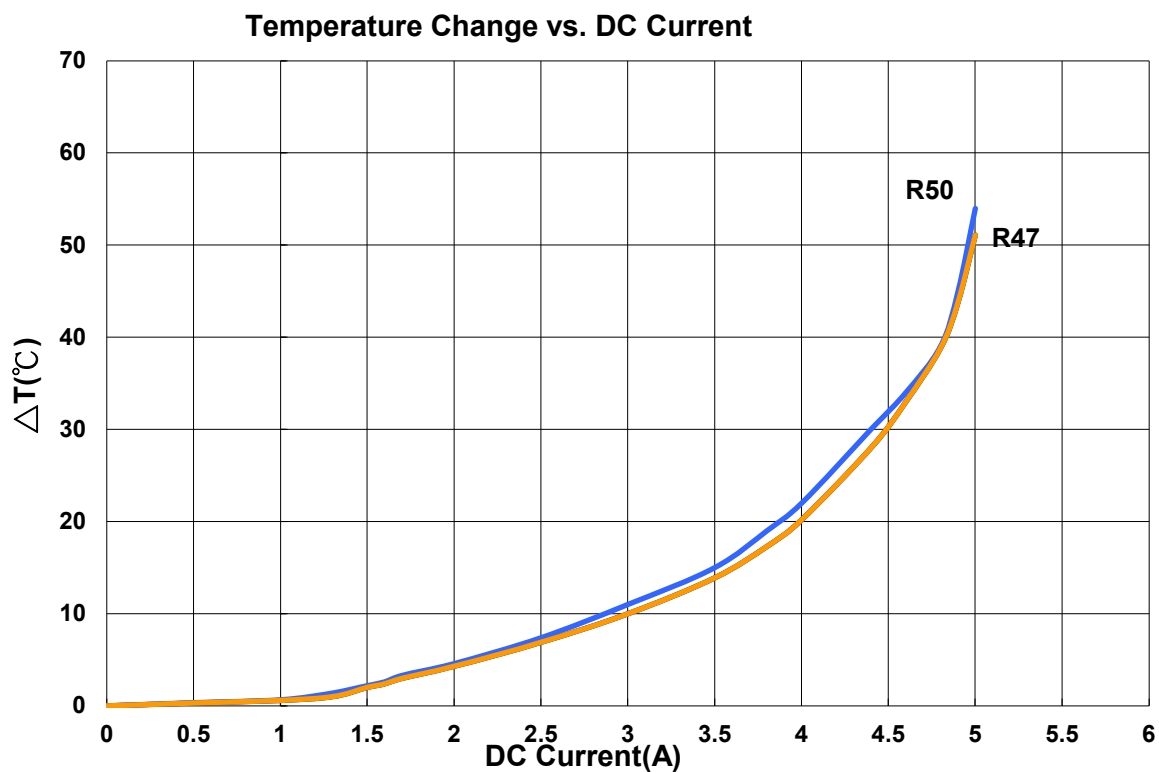
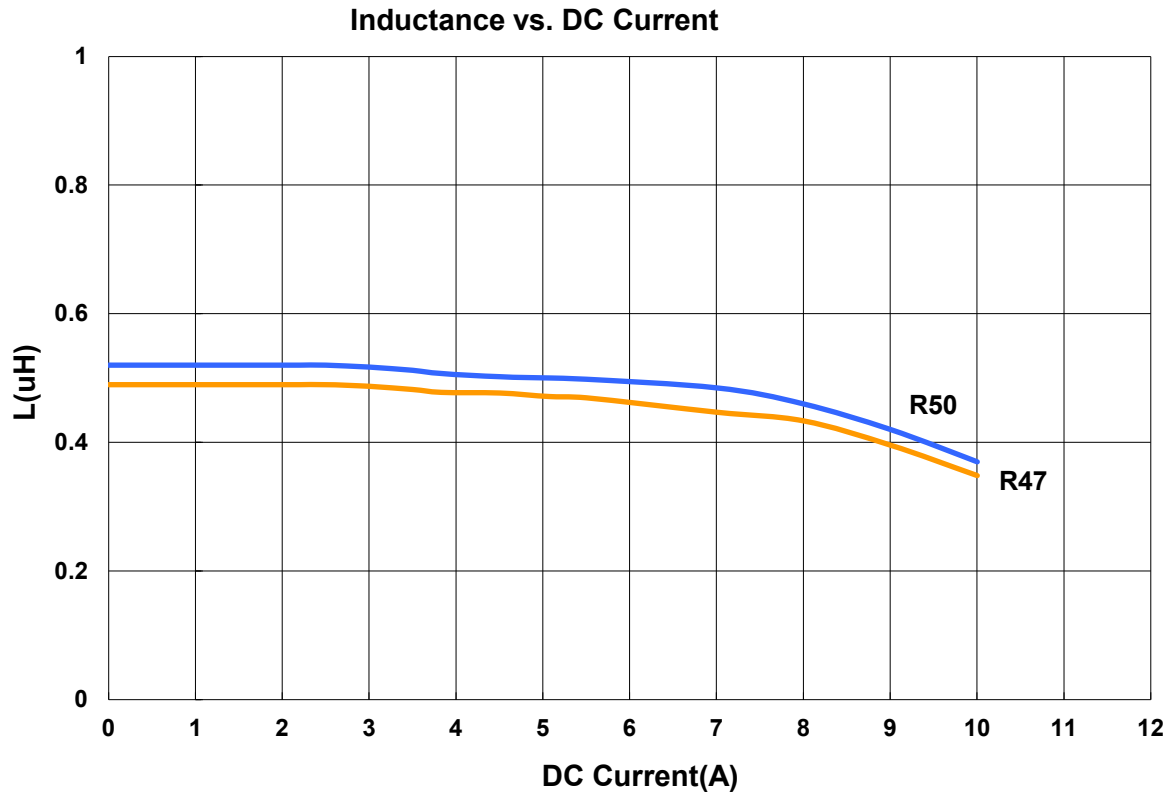
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

Irms: Agilent HP4284A

AWVT00404026 Type

Characteristics Graph

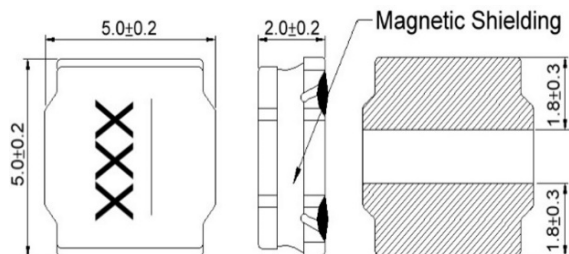


Power Inductor AWT Series

Automotive
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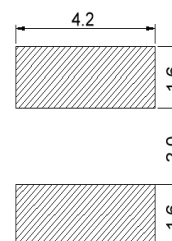
AWVT00505020 Type

■ 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℃ ~ 125℃ (Including self - temperature rise)

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40℃ temperature rise from 25℃ ambient with current

4. Measure Equipment:

L: HP4285A+HP42841A

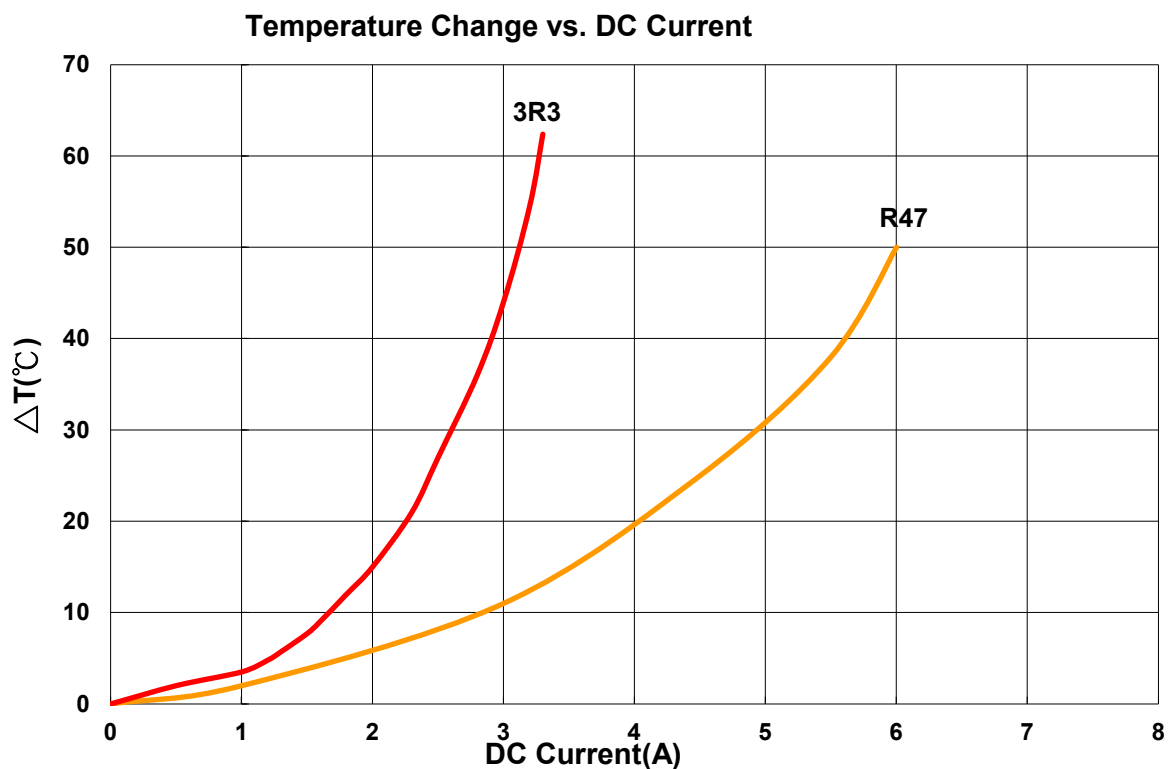
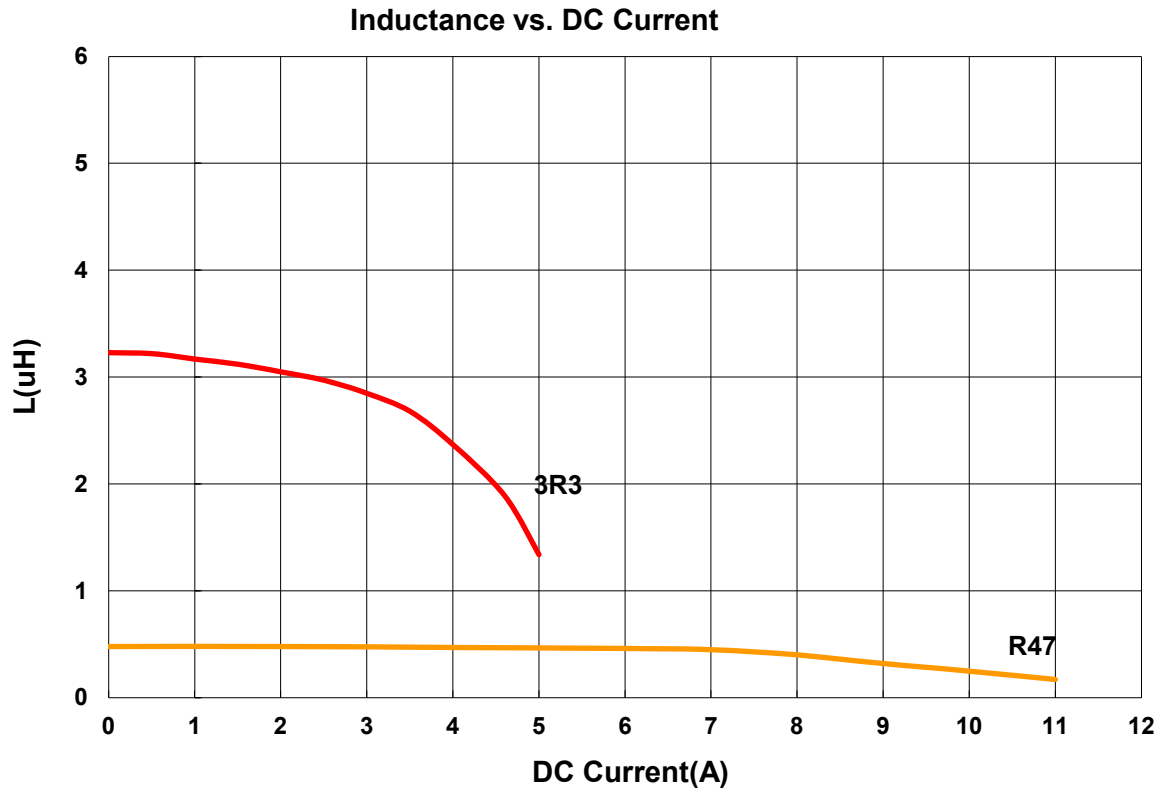
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A

Irms: Agilent HP4284A

AWVT00505020 Type

Characteristics Graph

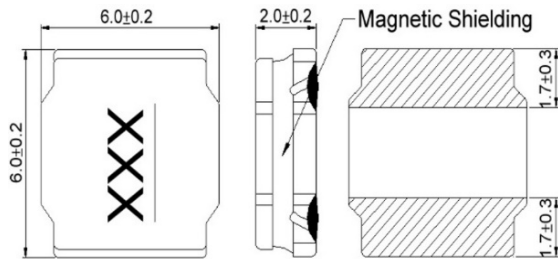


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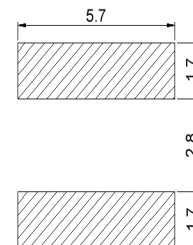
AWVT00606020 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

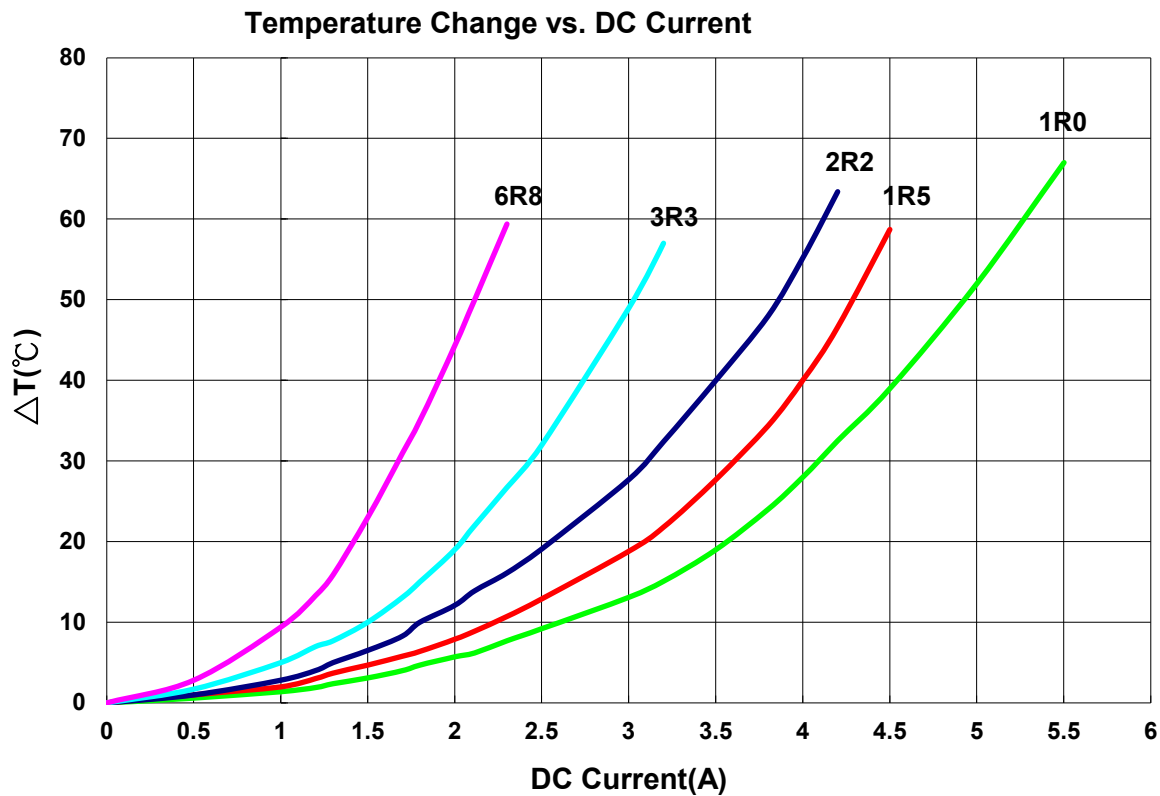
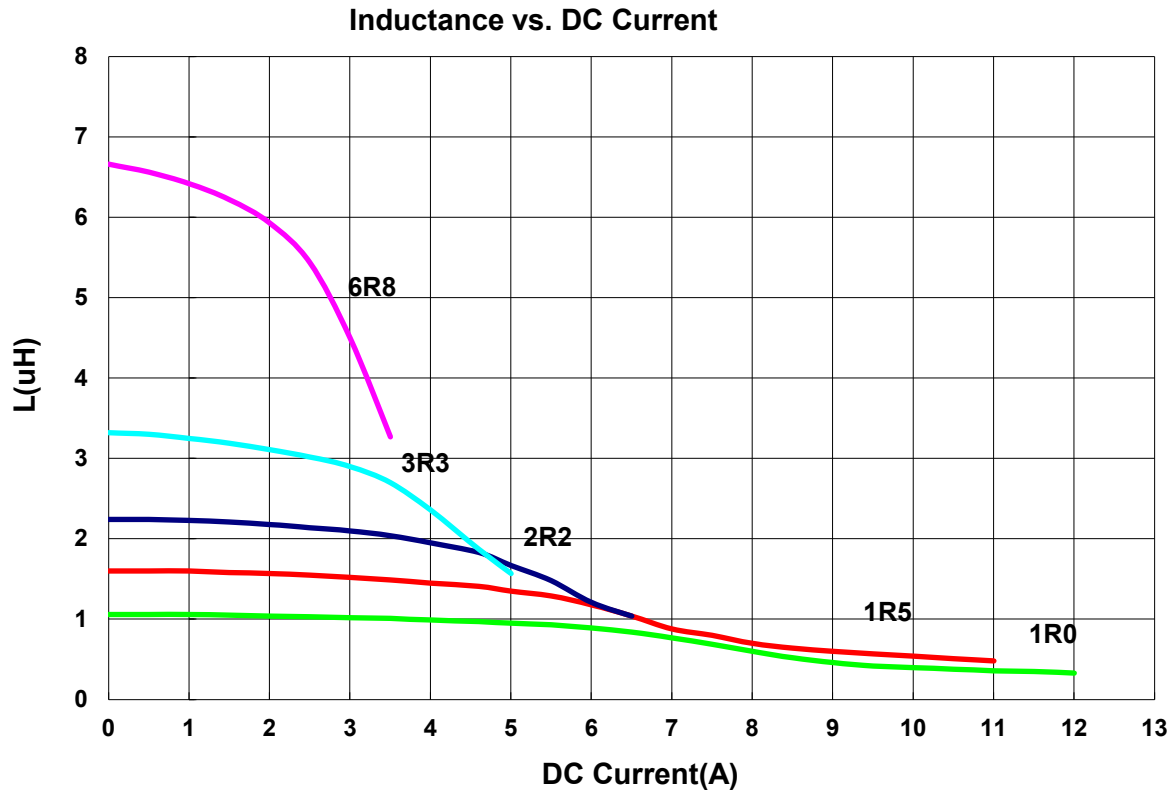
Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
AWVT006060201R0□00	1.0	100kHz,1V	0.019	6.4(5.70)	4.2(3.70)	20,30	1R0
AWVT006060201R5□00	1.5	100kHz,1V	0.026	5.4(4.80)	3.7(3.30)	20,30	1R5
AWVT006060202R2□00	2.2	100kHz,1V	0.034	4.5(4.00)	3.3(2.90)	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%

- Operating temperature range —40℃～125℃ (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment:
L: HP4285A+HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

AWVT00606020 Type

Characteristics Graph



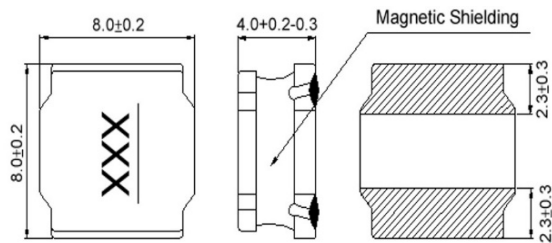
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

Power Inductor AWVT Series

Automotive
AEC-Q200

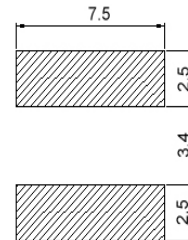
AWVT00808040 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (μ H)	Test Freq.	RDC (Ω) $\pm 30\%$	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance ($\pm\%$)	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

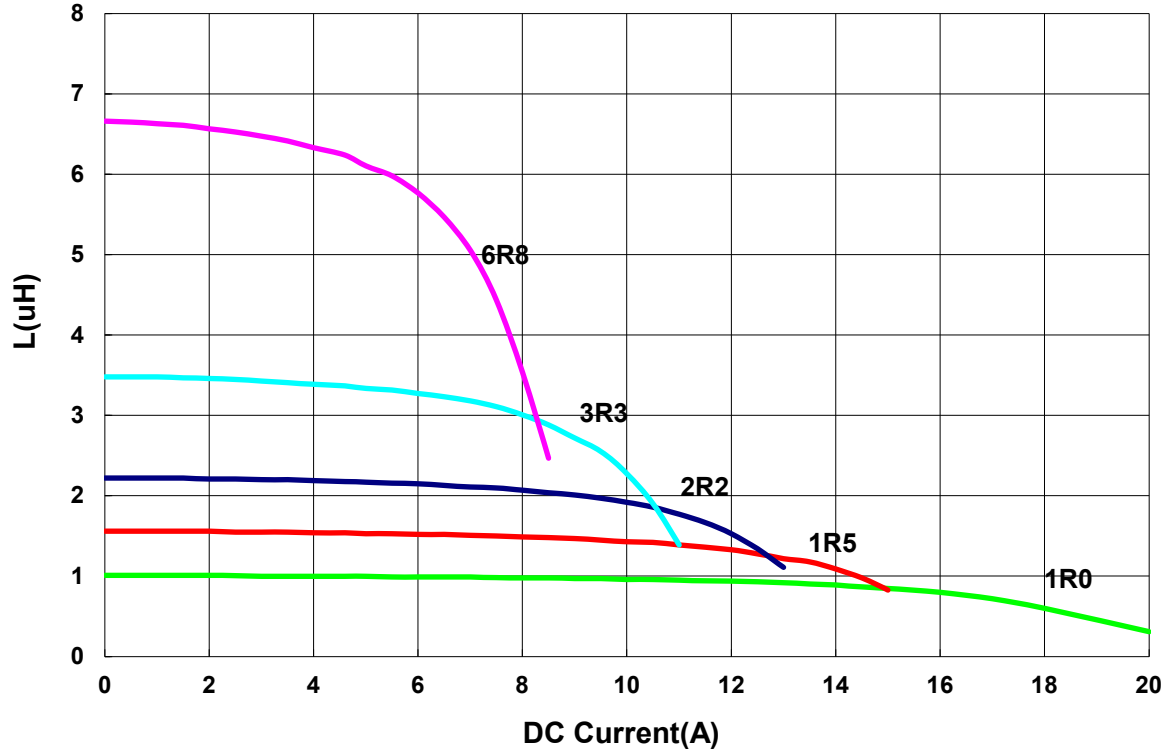
Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$ / T= $\pm 30\%$

- Operating temperature range $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)
- 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: HP4285A+HP42841A
RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat: Agilent HP4284A
Irms: Agilent HP4284A

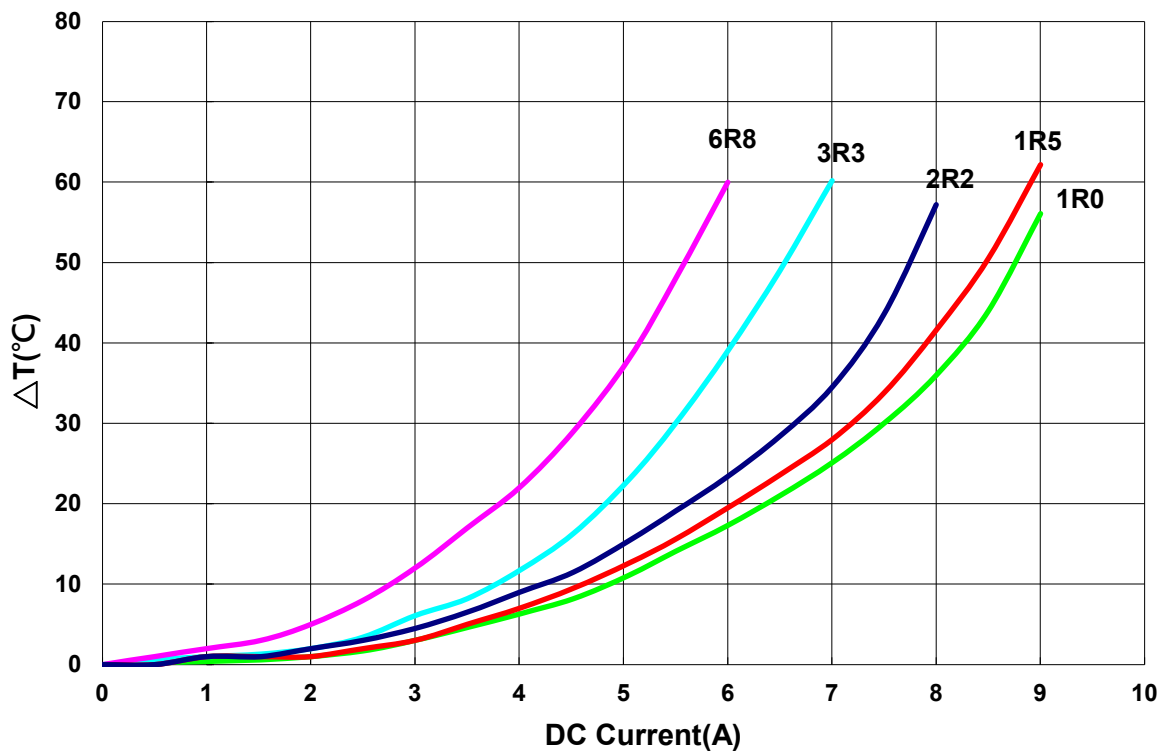
AWVT00808040 Type

Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current



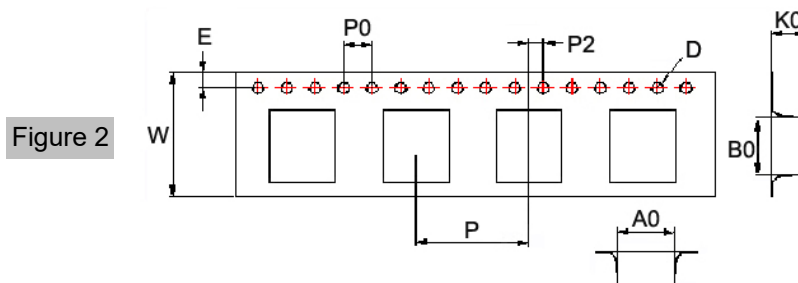
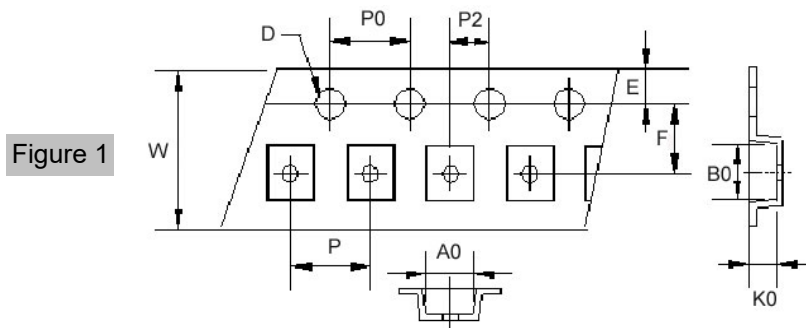
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■ Packaging

Tape Dimensions



Reel Dimensions

Figure 1

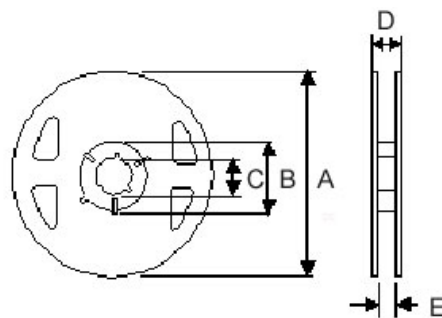
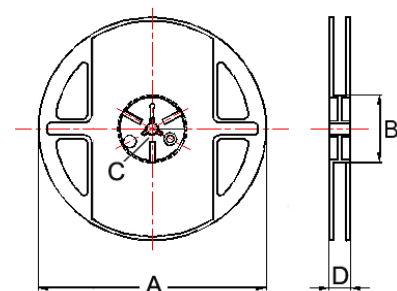


Figure 2



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
AWVT00201610	1	1.9	2.2	1.15	1.55	1.75	3.5	8	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	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	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	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	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	5.5	12	8	4	2	330	100	13	13.4	-	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

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