

# DATA SHEET

## INDUCTOR

Power Inductors

AWVS Series

RoHS compliant & Halogen Free



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

RoHS Compliant  
Halogen Free  
REACH Compliant



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

**Part Numbering**

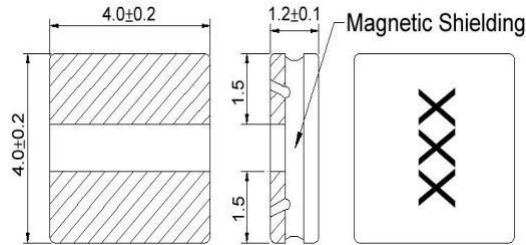
A	WVS	00	606045	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			404012 4.0x4.0x1.2	R47 0.47	M ±20%	00 General
			404018 4.0x4.0x1.8	1R0 1.0	T ±30%	L1 Low DCR
			505020 5.0x5.0x2.0	101 100		
			505040 5.0x5.0x4.0			
			606020 6.0x6.0x2.0			
			606028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

Power Inductor AWVS Series

Automotive  
AEC-Q200

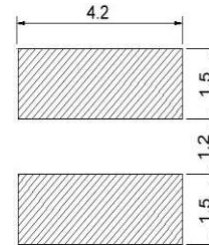
AWVS00404012 Type

■ 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. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

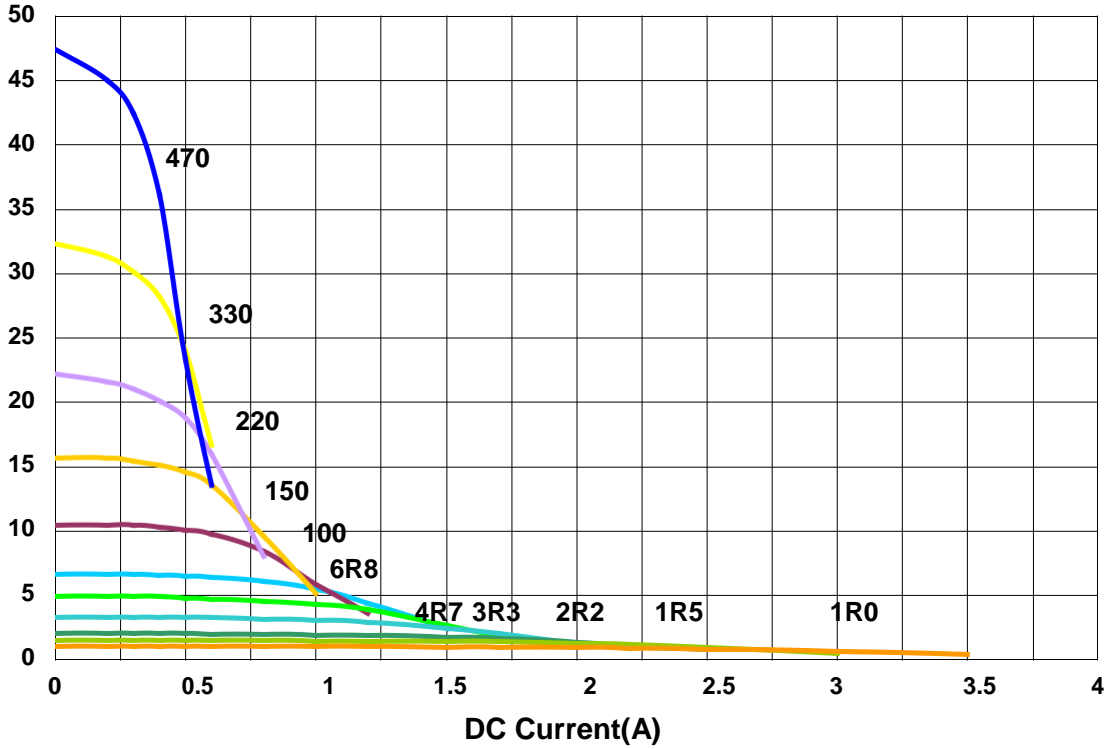
L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

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

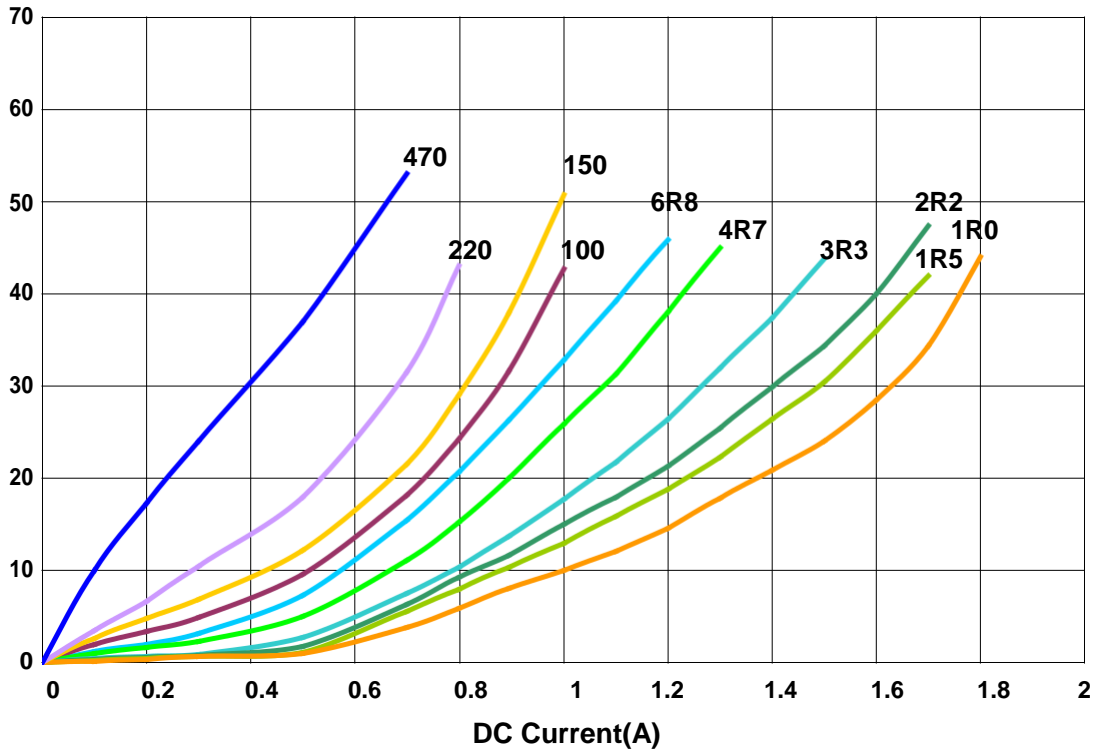
**AWVS00404012 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

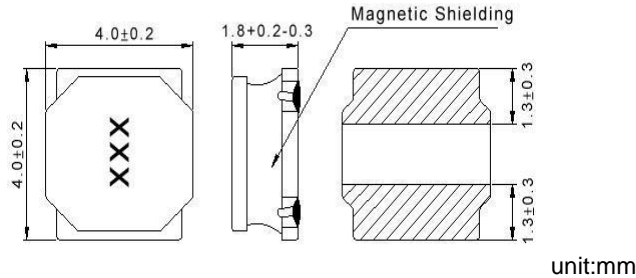


**Power Inductor AWVS Series**

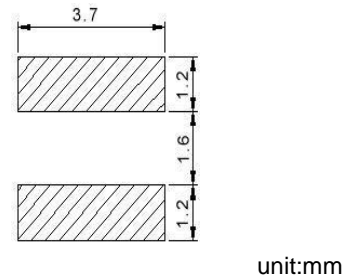
**Automotive  
AEC-Q200**

**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
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%**

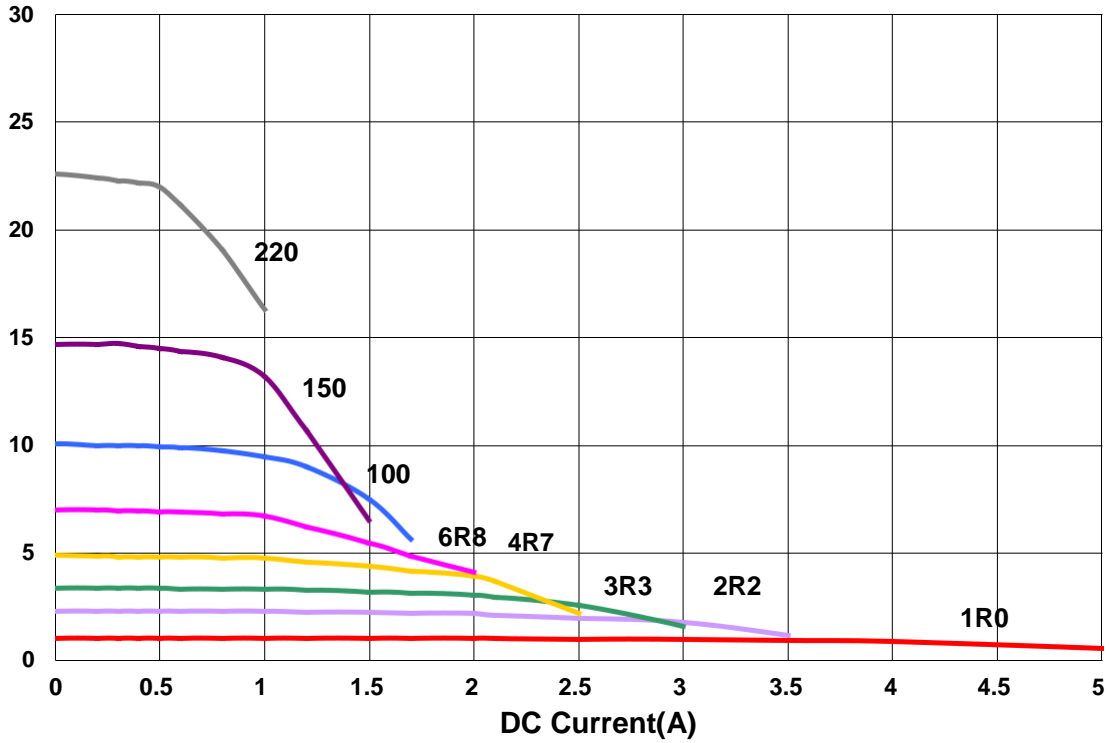
1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
 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

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

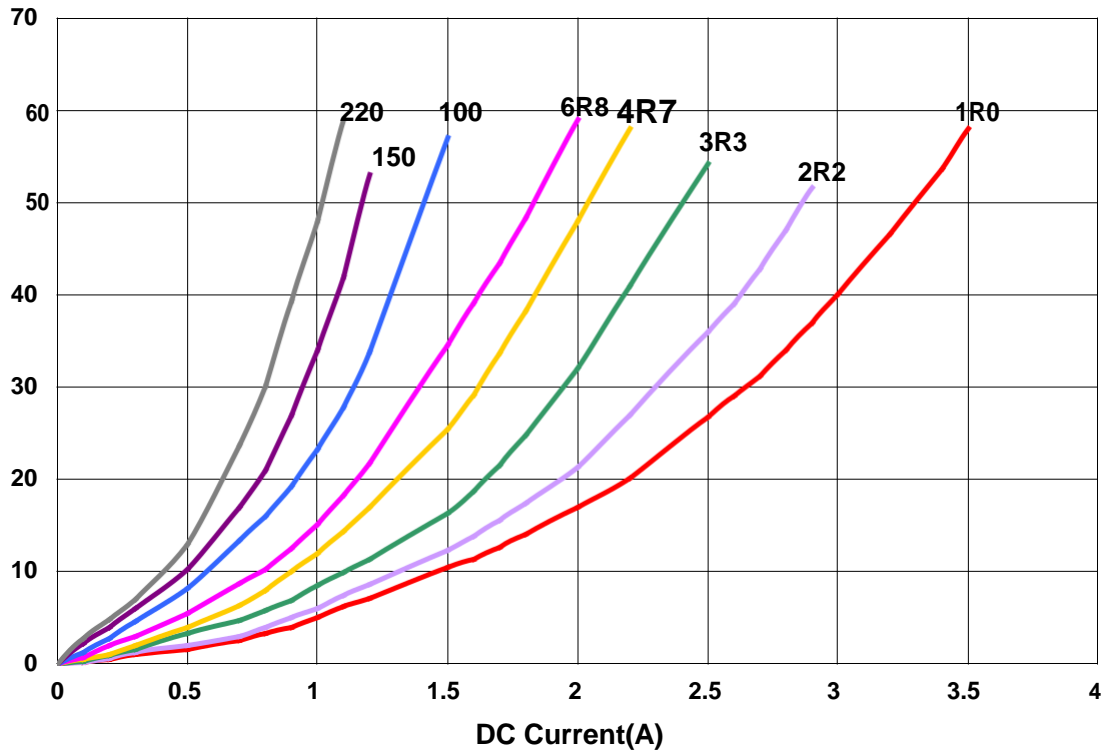
**AWVS00404018 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

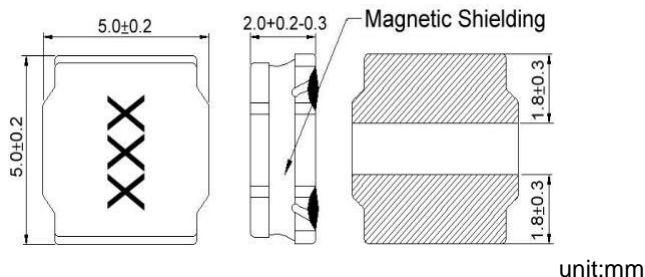


**Power Inductor AWVS Series**

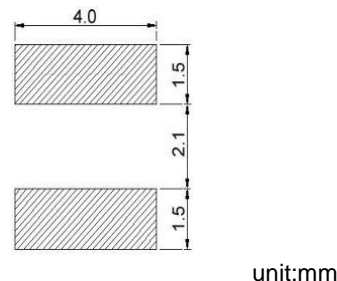
**Automotive  
AEC-Q200**

**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. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

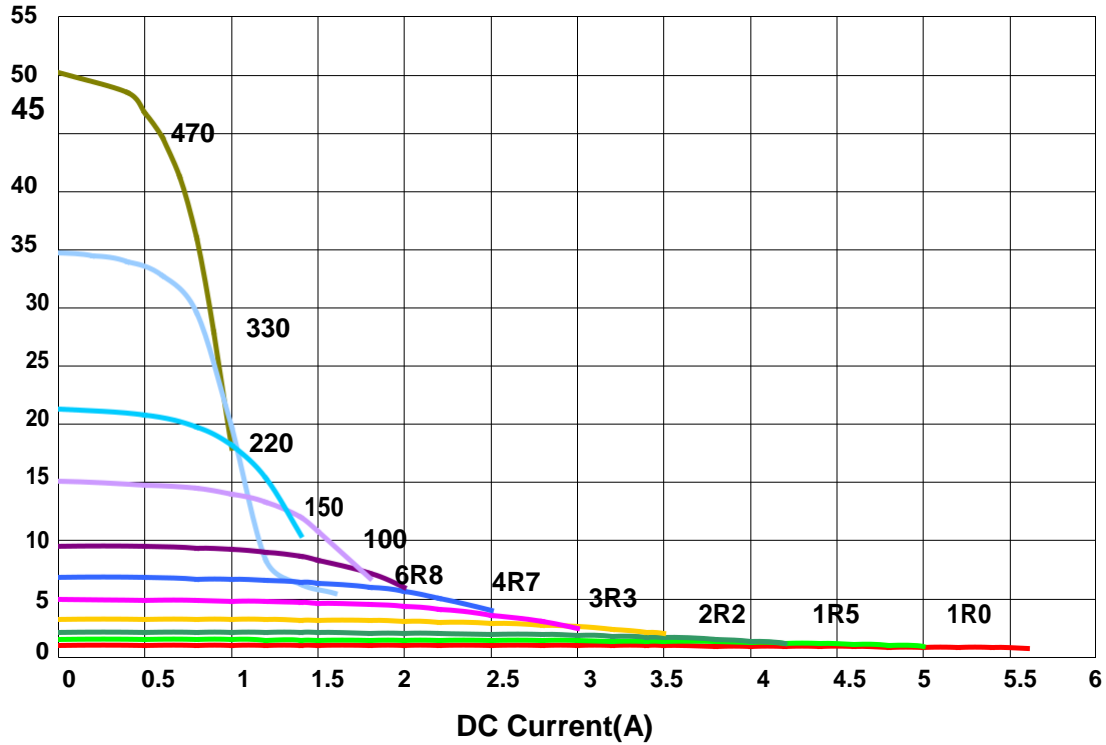
L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

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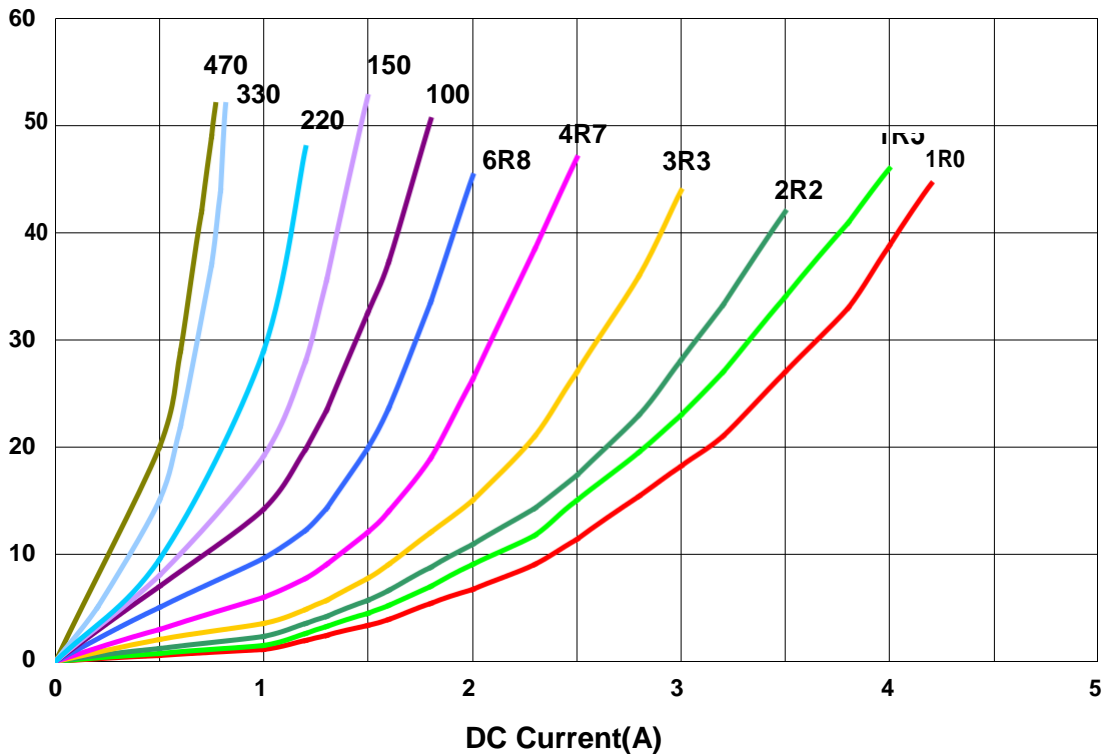
**AWVS00505020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

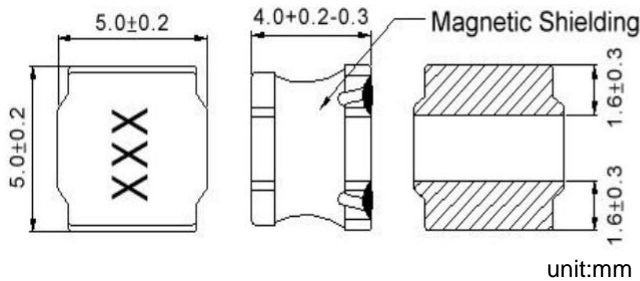




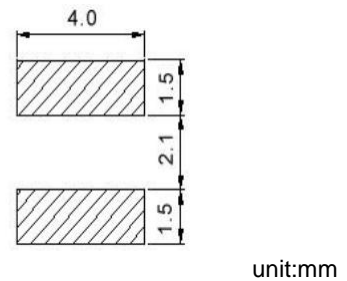
**Power Inductor AWVS Series** **Automotive AEC-Q200**

**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%**

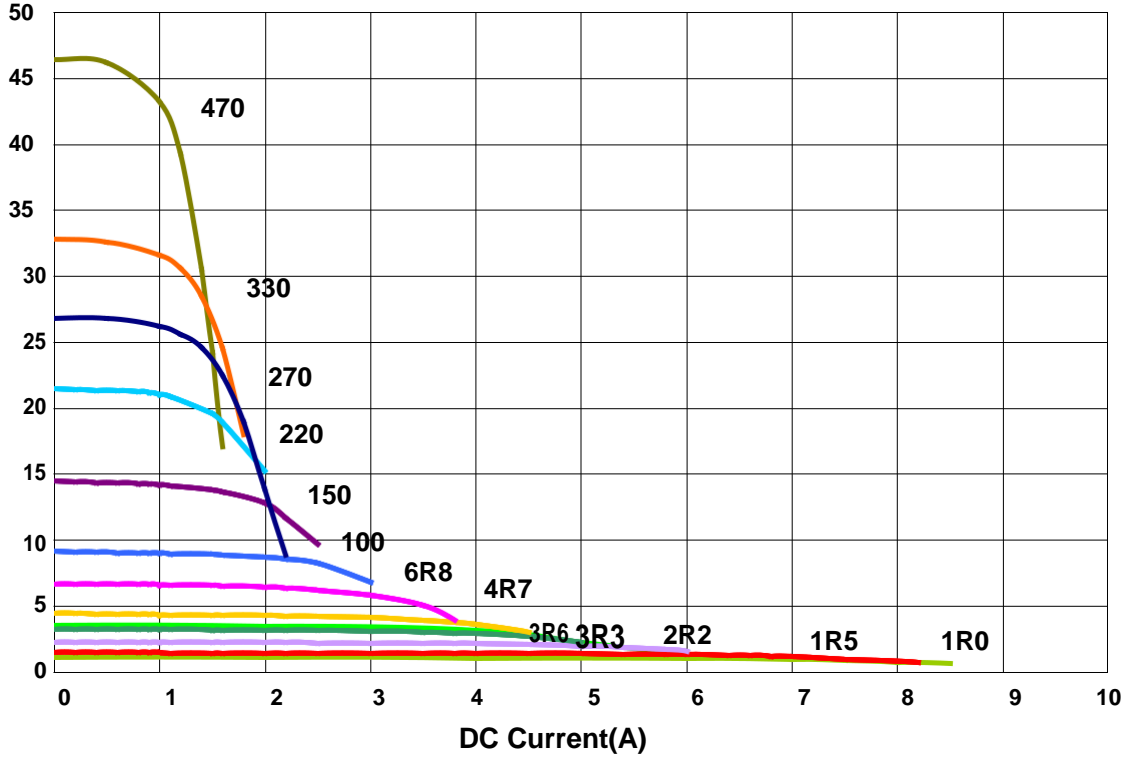
1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  -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

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

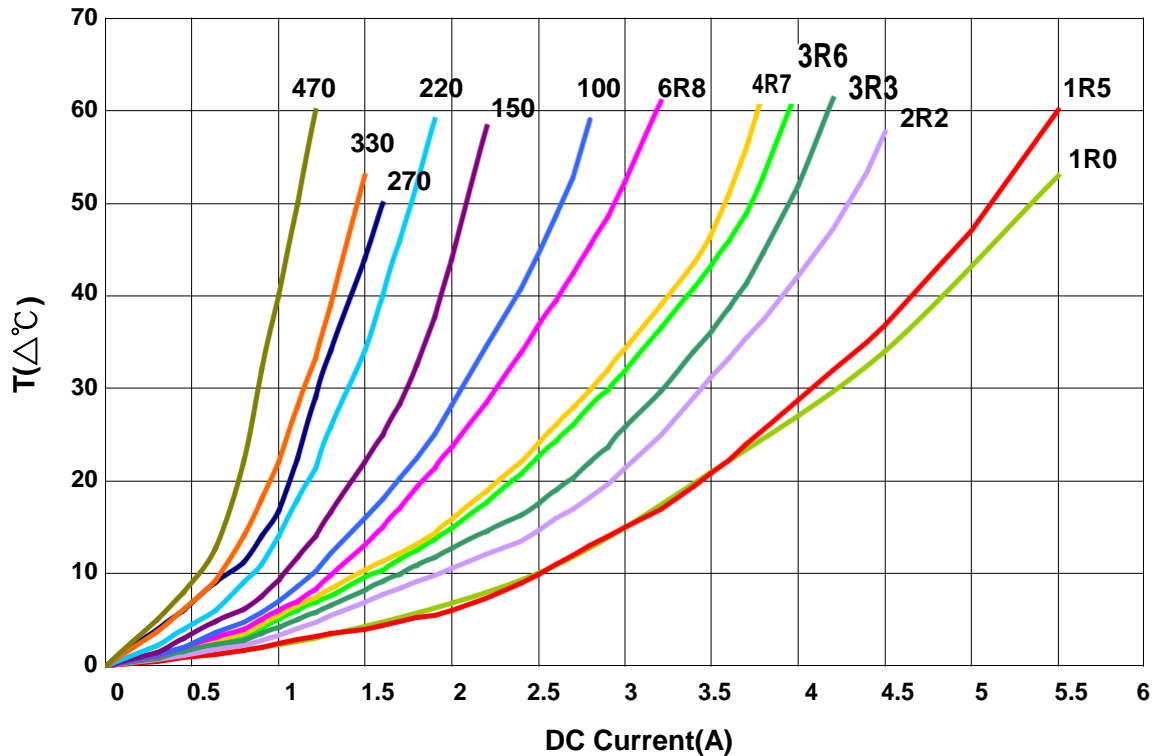
**AWVS00505040 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

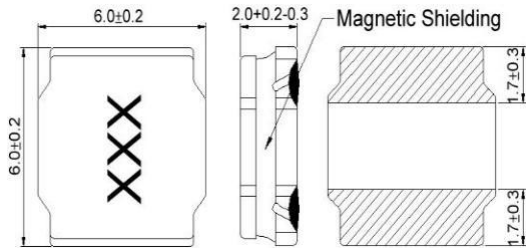


**Power Inductor AWVS Series**

**Automotive  
AEC-Q200**

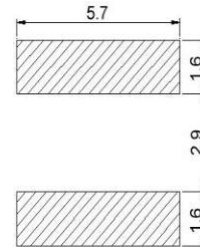
**AWVS00606020 Type**

**■ 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%**

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3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

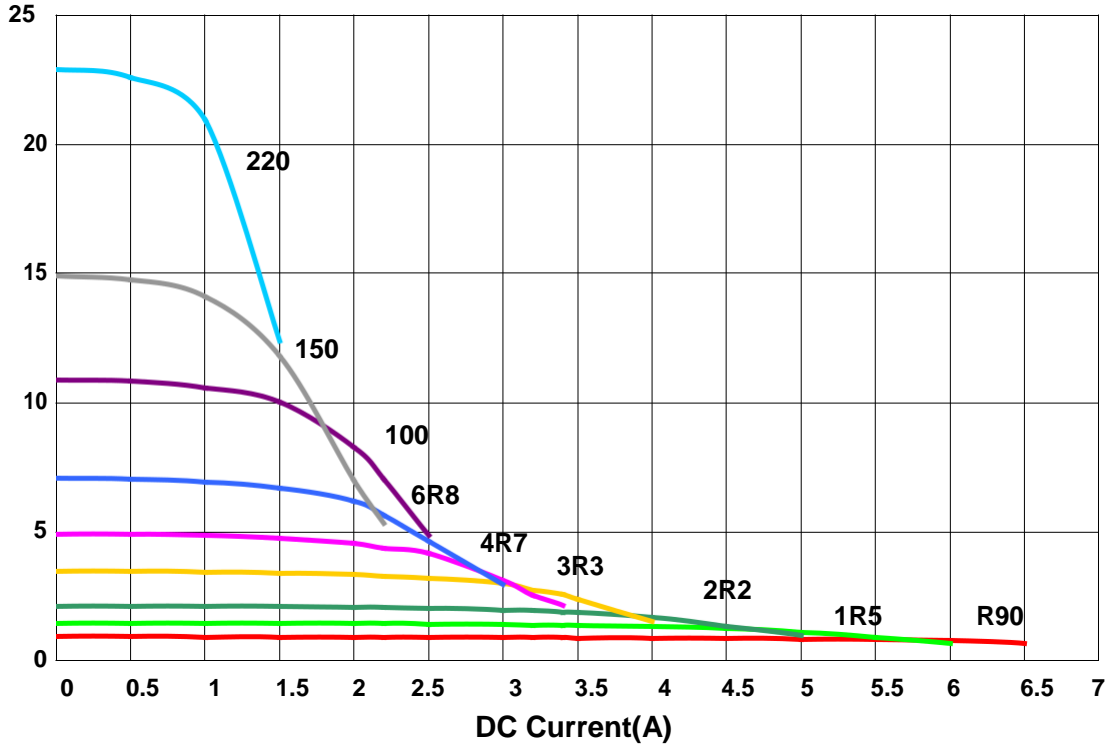
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 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

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

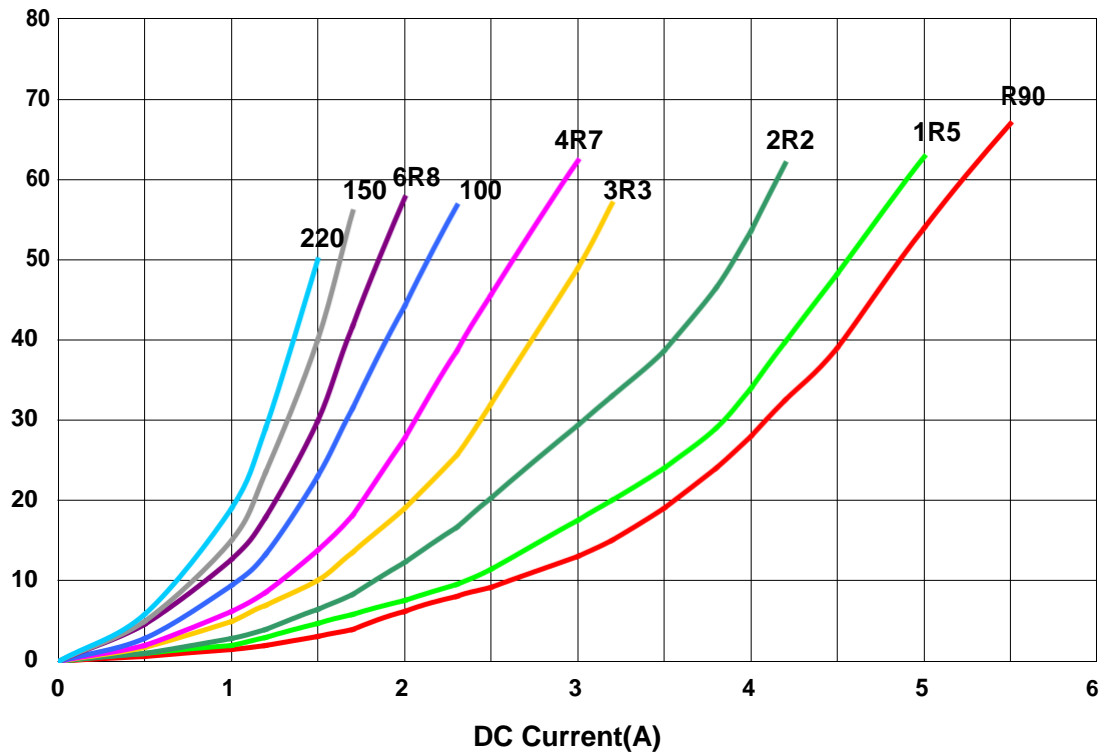
**AWVS00606020 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

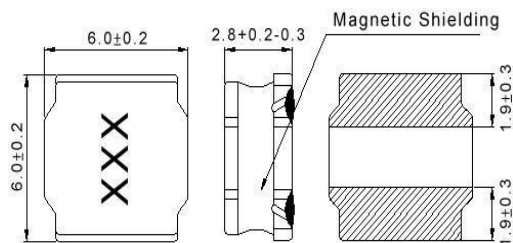


Power Inductor AWVS Series

Automotive  
AEC-Q200

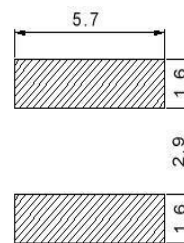
AWVS00606028 Type

■ 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. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:

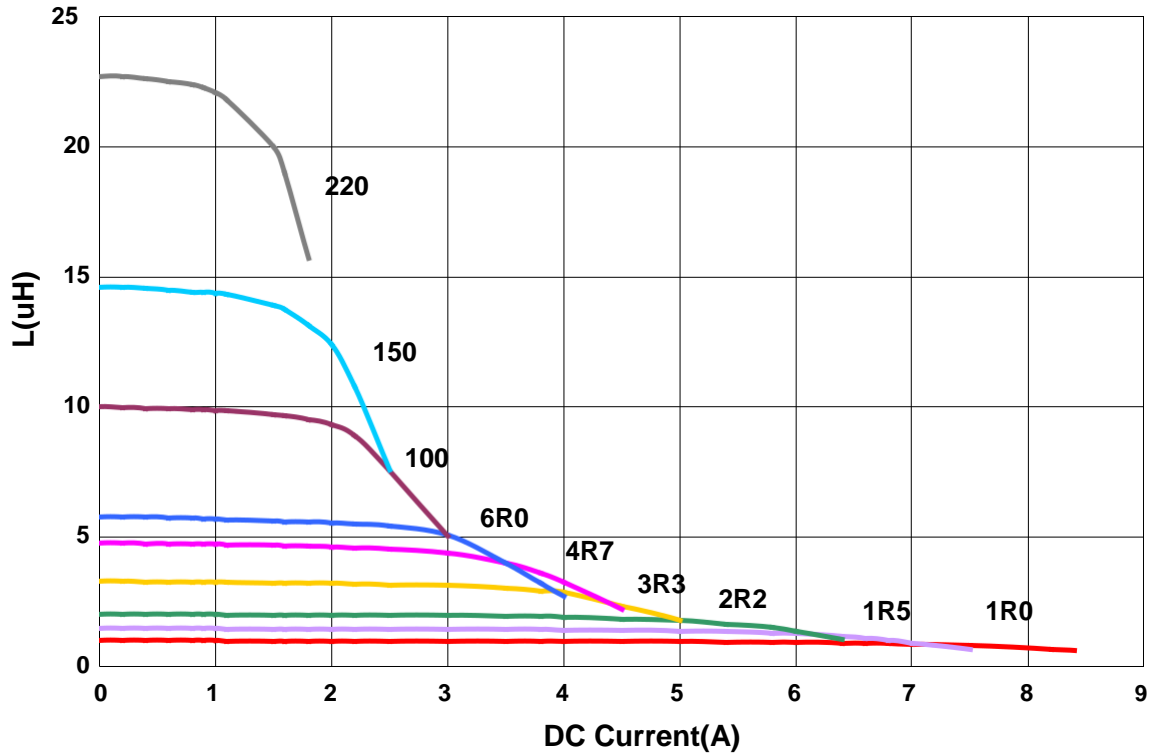
L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 Irms: Agilent HP4284A

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

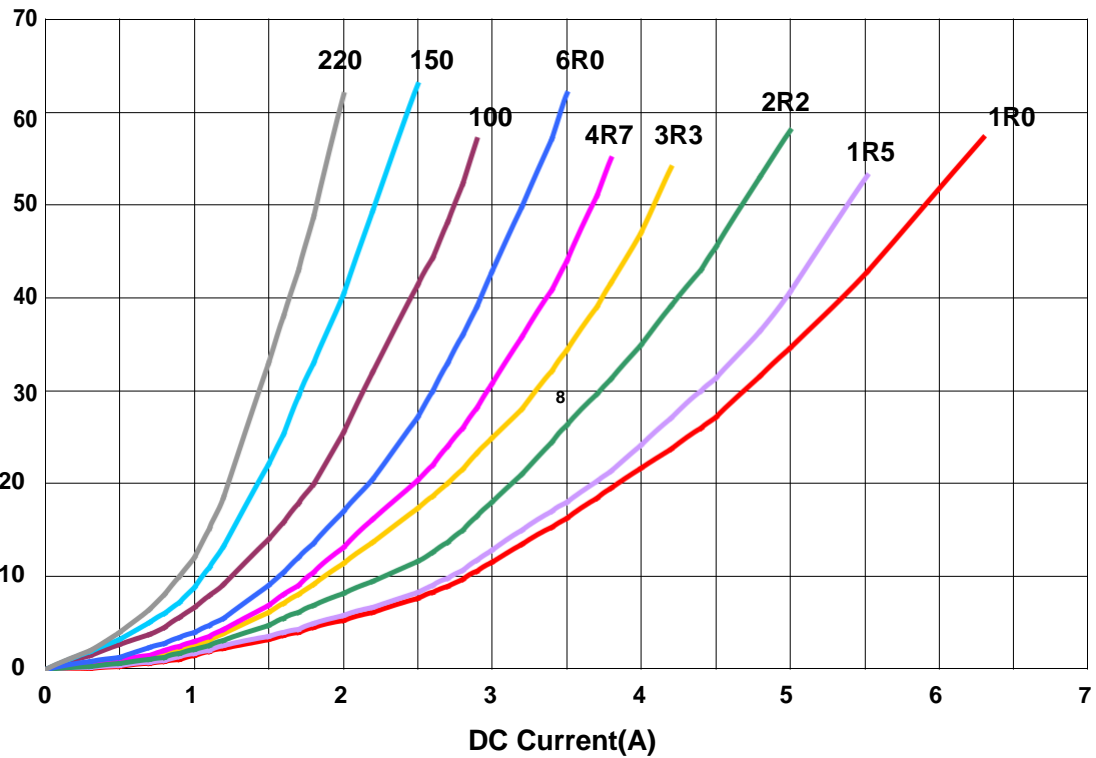
**AWVS00606028 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

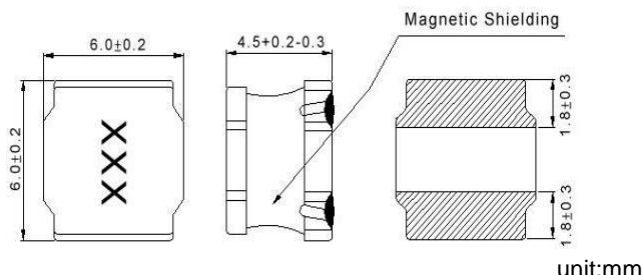


**Power Inductor AWVS Series**

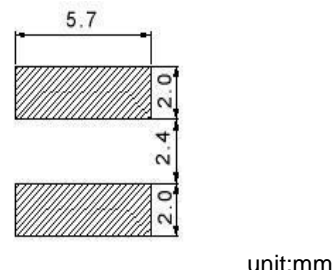
**Automotive  
AEC-Q200**

**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:

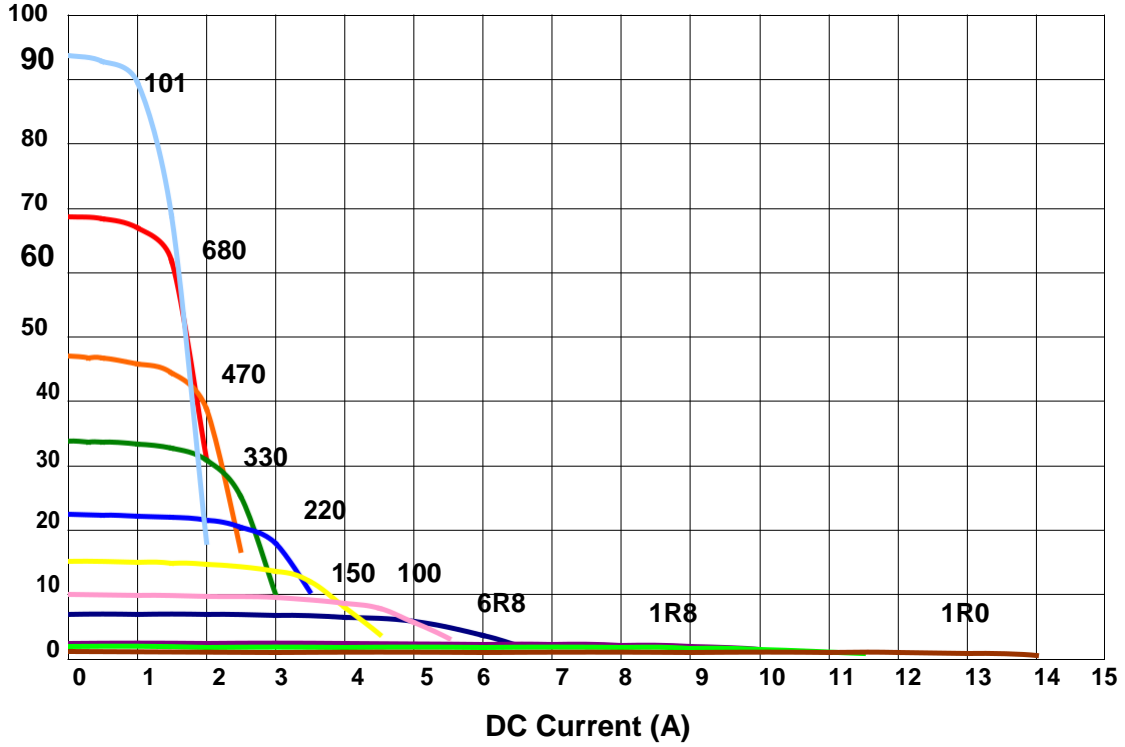
L: Agilent HP4284A+Agilent HP42841A  
 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

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

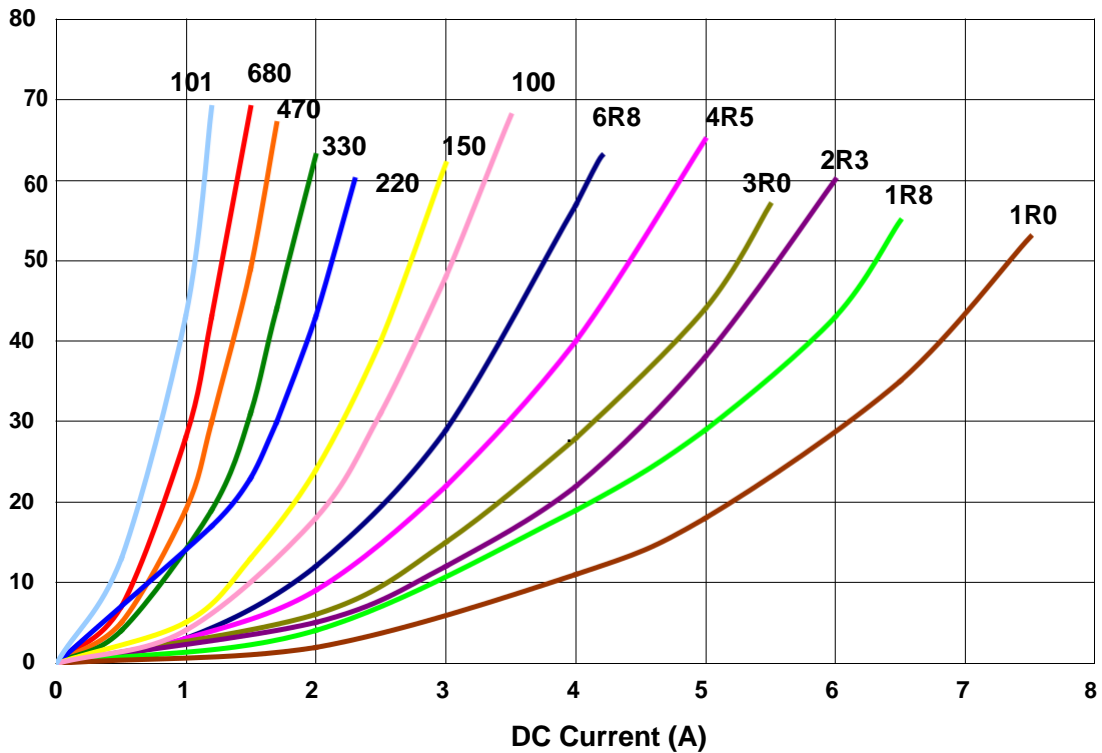
**AWVS00606045 Type**

**Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**



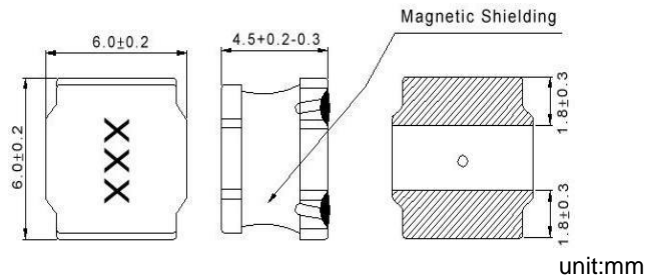


Power Inductor AWVS Series

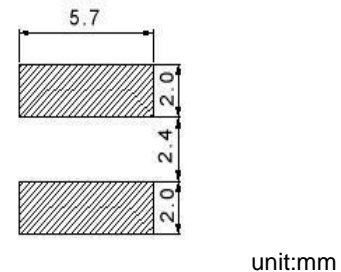
Automotive  
AEC-Q200

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%

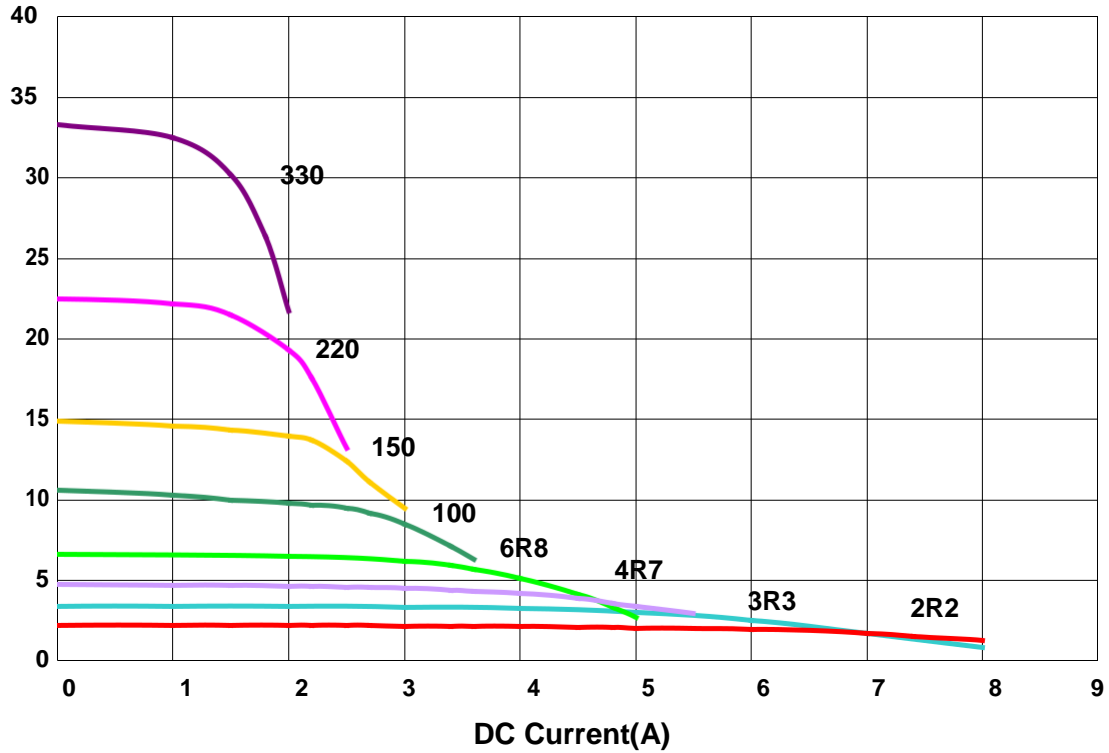
1. Operating temperature range - 40°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  -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

Power Inductor AWVS Series Automotive AEC-Q200

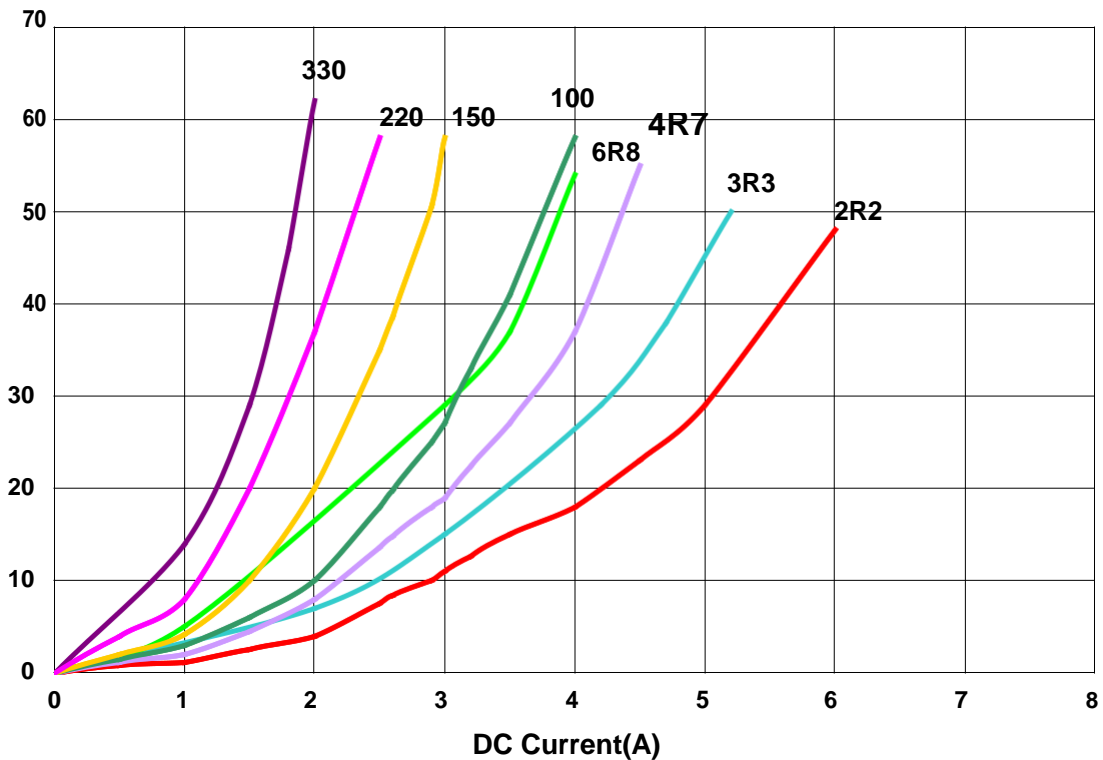
AWVS00606045 - L1 Type

Characteristics Graph

Inductance vs. DC Current



Temperature Change vs. DC Current

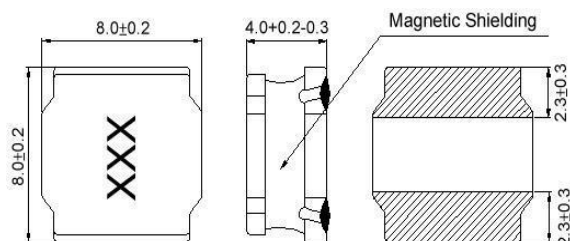


Power Inductor AWVS Series

Automotive  
AEC-Q200

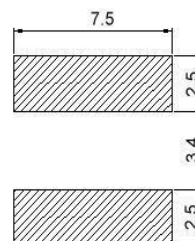
LVS808040 - AU Type

■ 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%

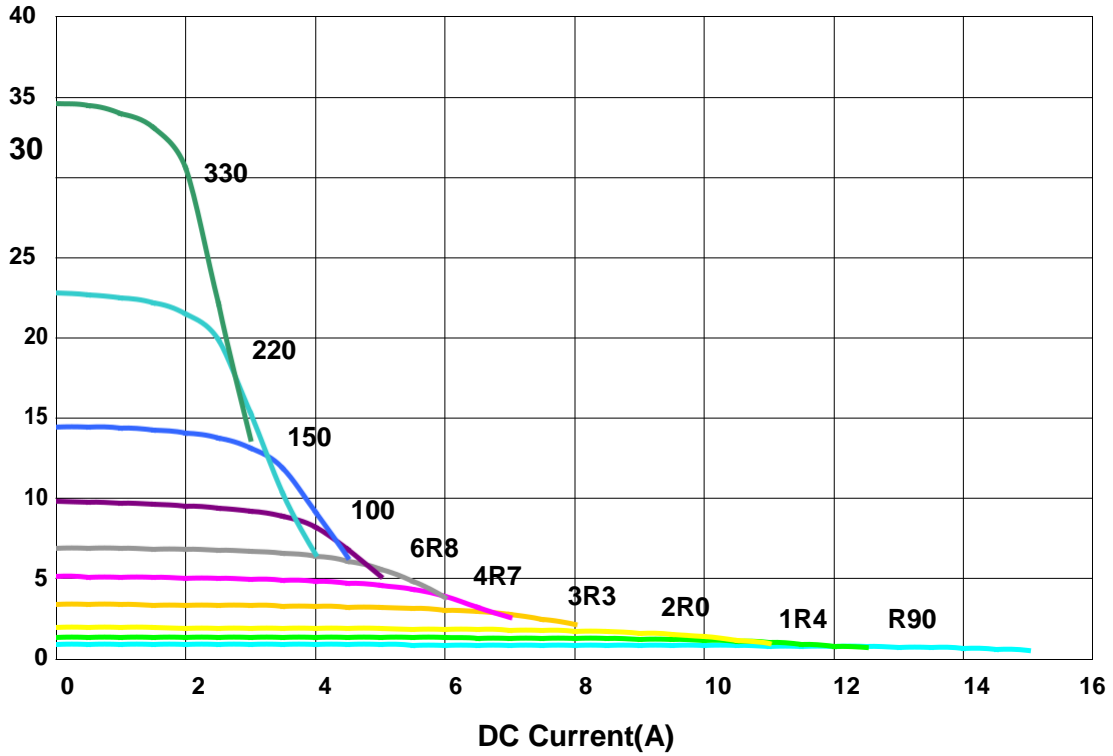
1. Operating temperature range - 40°C ~ 125°C
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4. Measure Equipment:  
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 RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent  
 Isat: Agilent HP4284A  
 I rms: Agilent HP4284A

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

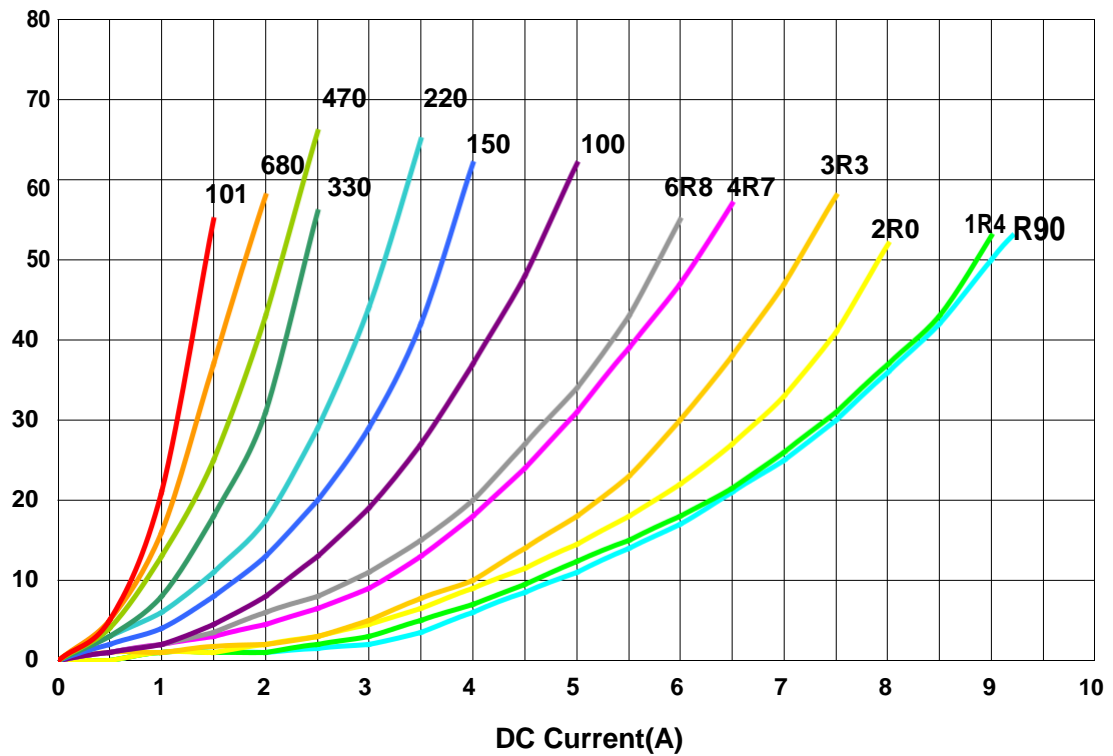
**LVS808040 - AU Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



**Temperature Change vs. DC Current**

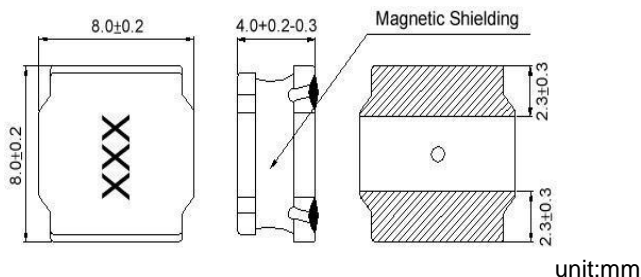


Power Inductor AWVS Series

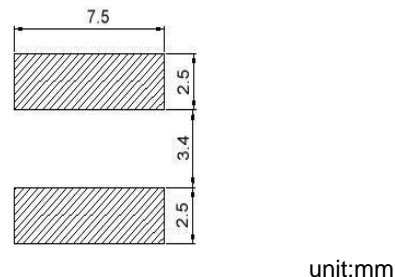
Automotive  
AEC-Q200

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%

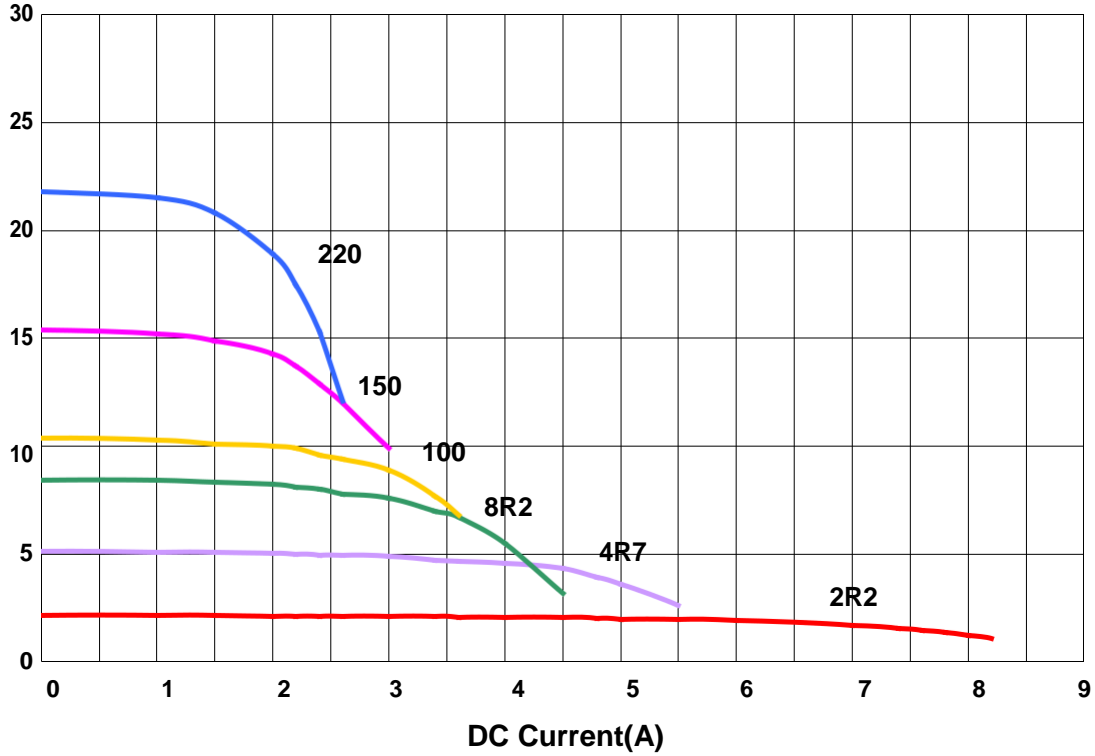
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2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Measure Equipment:
  - L: Agilent HP4284A+Agilent HP42841A
  - RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent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

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

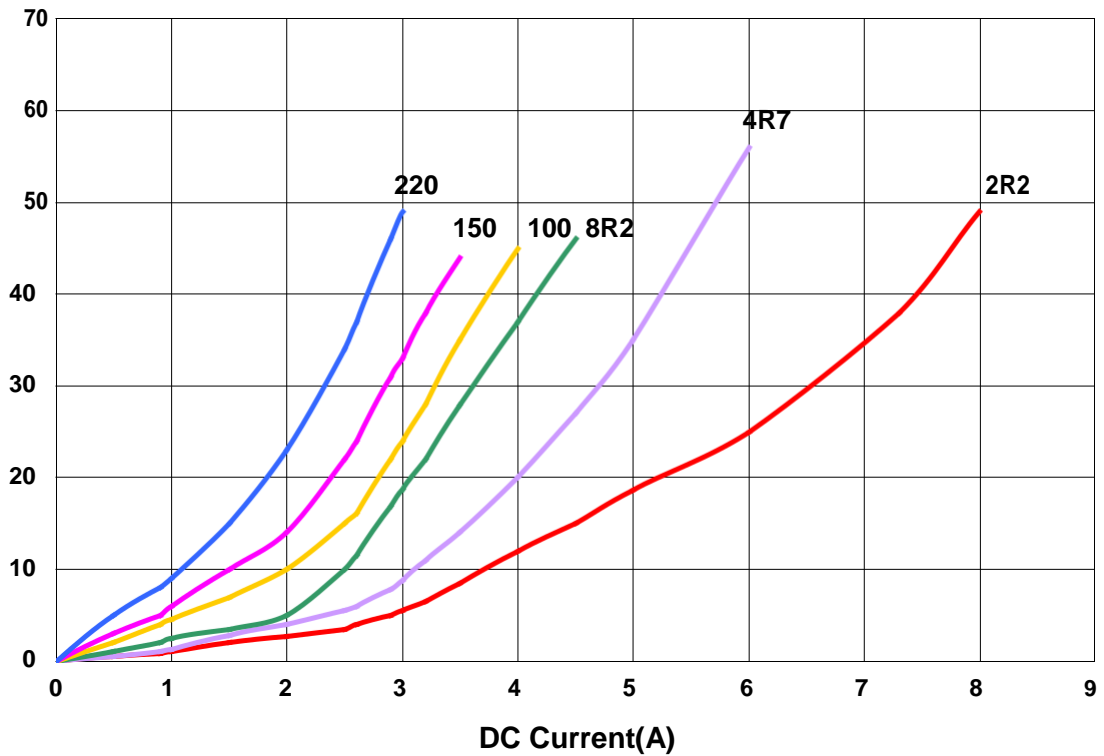
**AWVS00808040 - L1 Type**

**■ Characteristics Graph**

**Inductance vs. DC Current**



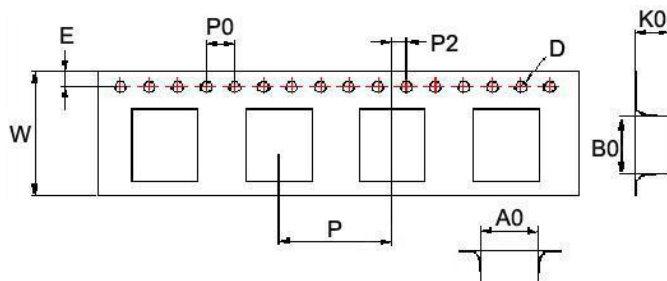
**Temperature Change vs. DC Current**



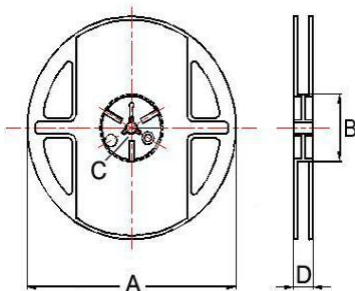
**Power Inductor AWVS Series** **Automotive AEC-Q200**

**■ 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	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	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

# Mouser Electronics

Authorized Distributor

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## Pulse:

[AWVS00404012100M00](#) [AWVS00404012100T00](#) [AWVS00404012150M00](#) [AWVS00404012150T00](#)  
[AWVS004040121R0M00](#) [AWVS004040121R0T00](#) [AWVS004040121R5M00](#) [AWVS004040121R5T00](#)  
[AWVS00404012220M00](#) [AWVS00404012220T00](#) [AWVS004040122R2M00](#) [AWVS004040122R2T00](#)  
[AWVS00404012330M00](#) [AWVS00404012330T00](#) [AWVS004040123R3M00](#) [AWVS004040123R3T00](#)  
[AWVS00404012470M00](#) [AWVS00404012470T00](#) [AWVS004040124R7M00](#) [AWVS004040124R7T00](#)  
[AWVS004040126R8M00](#) [AWVS004040126R8T00](#) [AWVS00404018100M00](#) [AWVS00404018100T00](#)  
[AWVS00404018101M00](#) [AWVS00404018101T00](#) [AWVS00404018121M00](#) [AWVS00404018121T00](#)  
[AWVS00404018150M00](#) [AWVS00404018150T00](#) [AWVS00404018151M00](#) [AWVS00404018151T00](#)  
[AWVS004040181R0M00](#) [AWVS004040181R0T00](#) [AWVS004040181R5M00](#) [AWVS004040181R5T00](#)  
[AWVS004040181R8M00](#) [AWVS004040181R8T00](#) [AWVS00404018220M00](#) [AWVS00404018220T00](#)  
[AWVS00404018221M00](#) [AWVS00404018221T00](#) [AWVS004040182R2M00](#) [AWVS004040182R2T00](#)  
[AWVS004040182R3M00](#) [AWVS004040182R3T00](#) [AWVS00404018330M00](#) [AWVS00404018330T00](#)  
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