### **BWVS Series**



BWVS series, an automatic assembly constructed power inductor, is shielded with magnetic resin and suitable for the portable DC-DC converter applications.

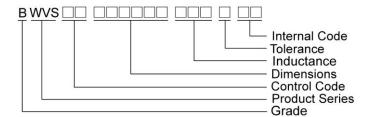
#### **Features**

- RoHS, Halogen Free and REACH Compliance
- Shielded with magnetic resin
- Various package size and wide inductance range
- Optimize electrical characteristics by using different ferrite core figures

### **Applications**

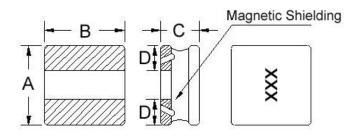
- AP Routers
- STBs
- LCD TVs, monitors and panels
- Game consoles
- DC/DC converters

#### **Product Identification**

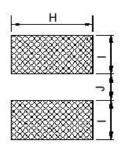


### **Shape and Dimensions**

### Figure 1



### **Recommended Pattern**



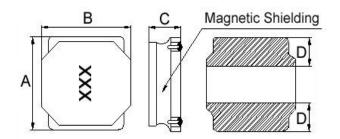
#### Dimensions in mm

TYPE	FIG	Α	В	С	D	Н	1	J
BWVS00404012	1	4.0±0.2	4.0±0.2	1.20±0.1	1.5	4.2	1.5	1.2

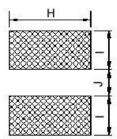


### **Shape and Dimensions**

### Figure 2



#### **Recommended Pattern**

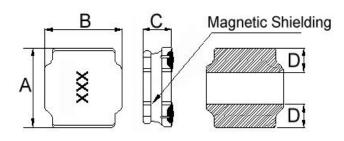


#### Dimensions in mm

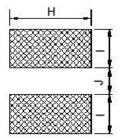
TYPE	FIG	Α	В	С	D	н	1	J
BWVS00404018	2	4.0±0.2	4.0±0.2	1.8 <sup>+0.2</sup> -0.30	1.3±0.3	3.7	1.2	1.6
BWVS00404026	2	4.0±0.2	4.0±0.2	2.6±0.2	1.4	3.7	1.2	1.6

### **Shape and Dimensions**

### Figure 3



### **Recommended Pattern**



#### Dimensions in mm

TYPE	FIG	Α	В	С	D	Н	I	J
BWVS00505020	3	5.0±0.2	5.0±0.2	2.0 <sup>+0.2</sup> -0.30	1.8±0.3	4.0	1.5	2.1
BWVS00505040	3	5.0±0.2	5.0±0.2	4.0 <sup>+0.2</sup> -0.30	1.6±0.3	4.0	1.5	2.1
BWVS00606020	3	6.0±0.2	6.0±0.2	2.0 <sup>+0.2</sup> -0.30	1.7±0.3	5.7	1.6	2.9
BWVS00606028	3	6.0±0.2	6.0±0.2	2.8 <sup>+0.2</sup> -0.30	1.9±0.3	5.7	1.6	2.9
BWVS00606045	3	6.0±0.2	6.0±0.2	4.5 <sup>+0.2</sup> <sub>-0.30</sub>	1.8±0.3	5.7	2.0	2.4
BWVS00808040	3	8.0±0.2	8.0±0.2	4.0 <sup>+0.2</sup> -0.30	2.3±0.3	7.5	2.5	3.4



#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS004040121R0_00	1.0	20, 30	100	48	2.50(2.25)	1.70(1.53)	1R0
BWVS004040121R5_00	1.5	20, 30	100	58	2.10(1.89)	1.60(1.44)	1R5
BWVS004040122R2_00	2.2	20, 30	100	65	1.70(1.53)	1.50(1.35)	2R2
BWVS004040123R3_00	3.3	20, 30	100	90	1.30(1.17)	1.40(1.26)	3R3
BWVS004040124R7_00	4.7	20, 30	100	110	1.10(0.99)	1.20(1.08)	4R7
BWVS004040126R8_00	6.8	20, 30	100	135	0.90(0.81)	1.05(0.94)	6R8
BWVS00404012100_00	10	20, 30	100	190	0.78(0.70)	0.90(0.81)	100
BWVS00404012150 <u></u> 00	15	20, 30	100	250	0.65(0.58)	0.85(0.76)	150
BWVS00404012220_00	22	20, 30	100	400	0.52(0.46)	0.75(0.67)	220
BWVS00404012330_00	33	20, 30	100	600	0.44(0.39)	0.70(0.63)	330
BWVS00404012470_00	47	20, 30	100	930	0.35(0.31)	0.50(0.45)	470

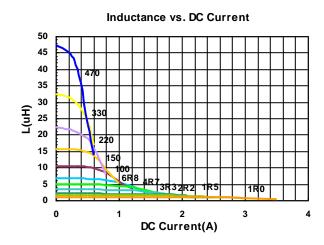
Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$ , T = $\pm 30\%$ 

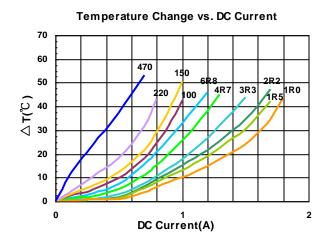
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A





#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±20%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS004040181R0_00	1.0	20, 30	100	32	4.10(3.69)	2.80(2.52)	1R0
BWVS004040181R5_00	1.5	20, 30	100	40	3.30(2.97)	2.60(2.34)	1R5
BWVS004040181R8_00	1.8	20, 30	100	55	2.80(2.50)	2.50(2.20)	1R8
BWVS004040182R2_00	2.2	20, 30	100	60	2.80(2.52)	2.50(2.25)	2R2
BWVS004040183R3_00	3.3	20, 30	100	70	2.20(1.98)	2.10(1.89)	3R3
BWVS004040183R6_00	3.6	20, 30	100	75	2.10(1.89)	1.90(1.71)	3R6
BWVS004040183R9_00	3.9	20, 30	100	75	2.10(1.89)	1.90(1.71)	3R9
BWVS004040184R7_00	4.7	20, 30	100	90	2.00(1.80)	1.70(1.53)	4R7
BWVS004040186R8_00	6.8	20, 30	100	110	1.60(1.44)	1.50(1.35)	6R8
BWVS004040188R2_00	8.2	20, 30	100	155	1.50(1.30)	1.30(1.10)	8R2
BWVS00404018100_00	10	20, 30	100	170	1.40(1.26)	1.20(1.08)	100
BWVS00404018150 <u>0</u> 00	15	20, 30	100	250	1.00(0.90)	1.00(0.90)	150
BWVS00404018220_00	22	20, 30	100	350	0.90(0.81)	0.85(0.76)	220
BWVS00404018330_00	33	20, 30	100	530	0.80(0.72)	0.70(0.63)	330
BWVS00404018470_00	47	20, 30	100	720	0.70(0.63)	0.56(0.50)	470
BWVS00404018680 <u>0</u> 00	68	20, 30	100	1000	0.56(0.50)	0.45(0.40)	680
BWVS00404018101_00	100	20, 30	100	1500	0.46(0.41)	0.38(0.34)	101
BWVS00404018121_00	120	20, 30	100	1600	0.38(0.34)	0.36(0.32)	121
BWVS00404018151_00	150	20, 30	100	2500	0.35(0.31)	0.30(0.27)	151
BWVS00404018221_00	220	20, 30	100	4000	0.28(0.25)	0.23(0.20)	221

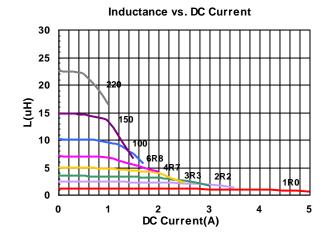
Note: When ordering, please specify tolerance code. Tolerance:  $M=\pm20\%$ ,  $T=\pm30\%$ 

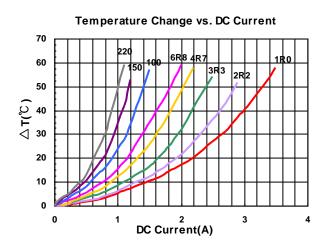
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS004040261R2_00	1.2	20, 30	100	30	3.50(3.15)	3.30(2.97)	1R2
BWVS004040263R3_00	3.3	20, 30	100	45	2.50(2.25)	2.50(2.25)	3R3
BWVS004040264R7_00	4.7	20, 30	100	60	1.80(1.62)	1.80(1.62)	4R7
BWVS00404026220_00	22	20, 30	100	230	0.86(0.77)	1.00(0.90)	220

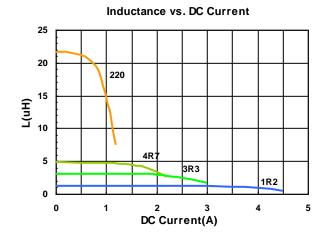
Note: When ordering, please specify tolerance code. Tolerance: M=±20%, T=±30%

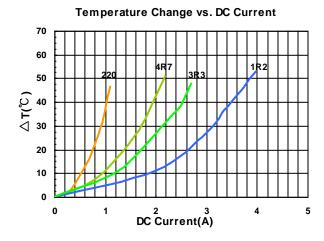
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40<sup>o</sup> temperature rise from 25<sup>o</sup> ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A





#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±20%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS005050201R0_00	1.0	20, 30	100	21	5.1(4.59)	4.0(3.60)	1R0
BWVS005050201R2_00	1.2	30	100	21	4.8(4.32)	3.8(3.42)	1R2
BWVS005050201R5_00	1.5	20, 30	100	26	4.2(3.78)	3.5(3.15)	1R5
BWVS005050202R2_00	2.2	20, 30	100	35	3.4(3.06)	3.2(2.88)	2R2
BWVS005050202R7_00	2.7	20, 30	100	38	3.05(2.7)	2.9(2.60)	2R7
BWVS005050203R3_00	3.3	20, 30	100	48	3.0(2.70)	2.8(2.52)	3R3
BWVS005050204R7_00	4.7	20, 30	100	60	2.2(1.98)	2.2(1.98)	4R7
BWVS005050205R6_00	5.6	20, 30	100	82	2.05(1.84)	2.0(1.80)	5R6
BWVS005050206R8_00	6.8	20, 30	100	90	2.0(1.80)	1.8(1.62)	6R8
BWVS00505020100 <u></u> 00	10	20, 30	100	120	1.6(1.44)	1.6(1.44)	100
BWVS00505020150_00	15	20, 30	100	190	1.3(1.17)	1.2(1.08)	150
BWVS00505020220_00	22	20, 30	100	260	1.0(0.90)	1.0(0.90)	220
BWVS00505020330_00	33	20, 30	100	460	0.8(0.72)	0.75(0.67)	330
BWVS00505020470 <u>0</u> 00	47	20, 30	100	580	0.65(0.58)	0.65(0.58)	470

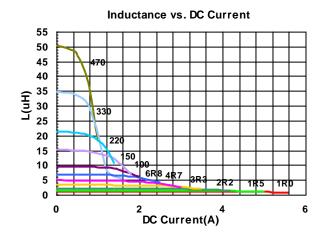
#### Note: When ordering, please specify tolerance code. Tolerance: $M=\pm20\%$ , $T=\pm30\%$

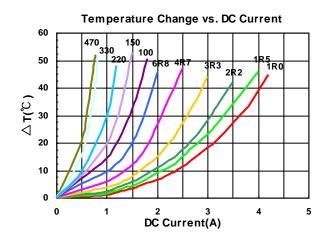
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- $\bullet$   $\;$  Irms for a 40°C  $\;$  temperature rise from 25°C  $\;$  ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS005050401R0_00	1.0	20, 30	100	14	7.5(6.75)	4.6(4.14)	1R0
BWVS005050401R2_00	1.2	20, 30	100	15	7.4(6.66)	4.5(4.05)	1R2
BWVS005050401R5_00	1.5	20, 30	100	16	7.1(6.39)	4.4(3.96)	1R5
BWVS005050402R2_00	2.2	20, 30	100	21	5.7(5.13)	3.7(3.33)	2R2
BWVS005050403R0_00	2.2	20, 30	100	26	4.8(4.32)	3.5(3.15)	3R0
BWVS005050403R3_00	3.3	20, 30	100	26	4.8(4.32)	3.5(3.15)	3R3
BWVS005050403R6_00	3.6	20, 30	100	31	4.2(3.70)	3.3(2.90)	3R6
BWVS005050404R7_00	4.7	20, 30	100	32	4.2(3.78)	3.2(2.88)	4R7
BWVS005050406R8_00	6.8	20, 30	100	50	3.3(2.97)	2.4(2.16)	6R8
BWVS00505040100 <u></u> 00	10	20, 30	100	60	2.8(2.52)	2.2(1.98)	100
BWVS00505040150_00	15	20, 30	100	90	2.3(2.07)	1.8(1.62)	150
BWVS00505040220_00	22	20, 30	100	135	1.8(1.62)	1.4(1.26)	220
BWVS00505040270_00	27	20, 30	100	180	1.6(1.44)	1.2(1.08)	270
BWVS00505040330 <u>0</u> 00	33	20, 30	100	190	1.5(1.35)	1.1(0.99)	330
BWVS00505040470_00	47	20, 30	100	310	1.2(1.08)	0.9(0.81)	470
BWVS00505040680 <u>0</u> 00	68	20, 30	100	540	1.0(0.90)	0.78(0.7)	680
BWVS00505040101_00	100	20, 30	100	800	0.7(0.60)	0.6(0.50)	101

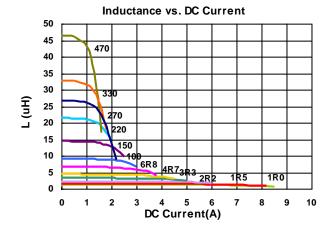
#### Note: When ordering, please specify tolerance code. Tolerance: $M=\pm20\%$ , $T=\pm30\%$

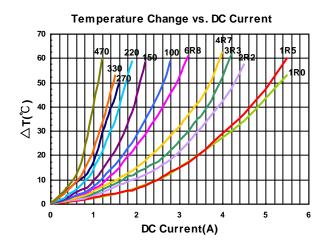
- Operating temperature range  $55^{\circ}$ C ~  $125^{\circ}$ C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- $\bullet$   $\;$  Irms for a 40  $^{\circ}\mathbb{C}\;$  temperature rise from 25  $^{\circ}\mathbb{C}\;$  ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS00606020R50_00	0.5	30	100	13	8.0(7.20)	5.3(4.77)	R50
BWVS00606020R90_00	0.9	30	100	18	6.3(5.67)	4.2(3.78)	R90
BWVS006060201R0_00	1.0	30	100	19	6.2(5.58)	4.1(3.69)	1R0
BWVS006060201R5_00	1.5	20, 30	100	26	5.0(4.50)	3.6(3.24)	1R5
BWVS006060202R2_00	2.2	20, 30	100	34	4.2(3.78)	3.2(2.88)	2R2
BWVS006060203R3_00	3.3	20, 30	100	40	3.2(2.88)	2.7(2.43)	3R3
BWVS006060204R7_00	4.7	20, 30	100	58	2.5(2.25)	2.2(1.98)	4R7
BWVS006060206R8_00	6.8	20, 30	100	85	2.2(1.98)	1.8(1.62)	6R8
BWVS00606020100_00	10	20, 30	100	125	2.0(1.80)	1.6(1.44)	100
BWVS00606020150 <u>0</u> 00	15	20, 30	100	190	1.3(1.17)	1.3(1.17)	150
BWVS00606020220_00	22	20, 30	100	260	1.1(0.99)	1.1(0.99)	220

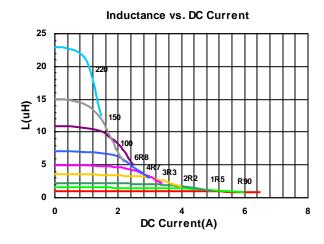
Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$ , T = $\pm 30\%$ 

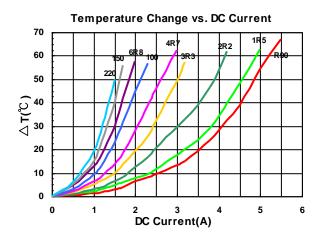
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS006060281R0_00	1.0	20, 30	100	13	7.6(6.84)	5.2(4.68)	1R0
BWVS006060281R5_00	1.5	20, 30	100	16	6.3(5.67)	4.8(4.32)	1R5
BWVS006060282R2_00	2.2	20, 30	100	20	5.4(4.86)	4.0(3.60)	2R2
BWVS006060282R7_00	2.7	20, 30	100	26	4.9(4.41)	3.7(3.33)	2R7
BWVS006060283R3_00	3.3	20, 30	100	28	4.3(3.87)	3.5(3.15)	3R3
BWVS006060284R7_00	4.7	20, 30	100	38	3.7(3.33)	3.2(2.88)	4R7
BWVS006060286R0_00	6.0	20, 30	100	45	3.3(2.97)	2.8(2.52)	6R0
BWVS006060286R8_00	6.8	20, 30	100	50	3.1(2.79)	2.7(2.43)	6R8
BWVS00606028100_00	10	20, 30	100	65	2.5(2.25)	2.3(2.07)	100
BWVS00606028150 <u>0</u> 00	15	20, 30	100	95	2.0(1.80)	1.8(1.62)	150
BWVS00606028220_00	22	20, 30	100	135	1.6(1.44)	1.5(1.35)	220
BWVS00606028330 <u>0</u> 00	33	20, 30	100	220	1.3(1.17)	1.4(1.26)	330
BWVS00606028470_00	47	20, 30	100	320	1.1(0.99)	1.0(0.90)	470
BWVS00606028680 <u>0</u> 00	68	20, 30	100	420	0.98(0.88)	0.9(0.81)	680
BWVS00606028101_00	100	20, 30	100	600	0.82(0.73)	0.8(0.72)	101

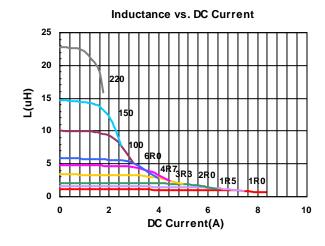
### Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$ , T = $\pm 30\%$

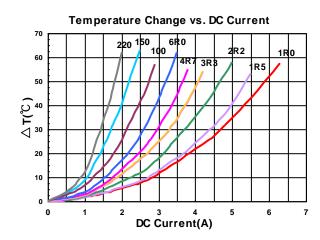
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40<sup>o</sup>C temperature rise from 25<sup>o</sup>C ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS006060451R0_00	1.0	20, 30	100	12	12.2(10.98)	6.5(5.85)	1R0
BWVS006060451R2_00	1.2	20, 30	100	13	10.6(9.50)	5.9(5.30)	1R2
BWVS006060451R5_00	1.5	20, 30	100	15	10.4(9.36)	5.9(5.31)	1R5
BWVS006060451R8_00	1.8	20, 30	100	17	9.6(8.64)	5.6(5.04)	1R8
BWVS006060452R2_00	2.2	20, 30	100	18.4	8.8(7.92)	5.1(4.59)	2R2
BWVS006060452R3_00	2.3	20, 30	100	19	8.8(7.92)	5.0(4.50)	2R3
BWVS006060453R0_00	3.0	20, 30	100	22	7.8(7.02)	4.4(3.96)	3R0
BWVS006060453R3_00	3.3	20, 30	100	24	7.5(6.75)	4.3(3.87)	3R3
BWVS006060453R6_00	3.6	20, 30	100	24	7.5(6.75)	4.3(3.87)	3R6
BWVS006060453R9_00	3.9	20, 30	100	26	7.0(6.30)	4.0(3.60)	3R9
BWVS006060454R5_00	4.5	20, 30	100	31	6.7(6.03)	3.9(3.51)	4R5
BWVS006060454R7_00	4.7	20, 30	100	31	6.7(6.03)	3.9(3.51)	4R7
BWVS006060455R1_00	5.1	20, 30	100	33	6.0(5.40)	3.5(3.15)	5R1
BWVS006060455R6_00	5.6	20, 30	100	40	5.5(4.95)	3.3(2.97)	5R6
BWVS006060456R3_00	6.3	20, 30	100	40	5.5(4.95)	3.3(2.97)	6R3
BWVS006060456R8_00	6.8	20, 30	100	43	5.3(4.77)	3.2(2.88)	6R8
BWVS006060458R2_00	8.2	20, 30	100	53	4.6(4.10)	2.9(2.60)	8R2
BWVS00606045100_00	10	20, 30	100	57	4.5(4.05)	2.7(2.43)	100
BWVS00606045150_00	15	20, 30	100	80	3.4(3.06)	2.2(1.98)	150
BWVS00606045180_00	18	20, 30	100	100	3.1(2.79)	1.8(1.62)	180
BWVS00606045220_00	22	20, 30	100	125	3.0(2.70)	1.9(1.71)	220
BWVS00606045270_00	27	20, 30	100	160	2.5(2.25)	1.3(1.17)	270
BWVS00606045330_00	33	20, 30	100	165	2.3(2.07)	1.4(1.26)	330
BWVS00606045470_00	47	20, 30	100	245	1.9(1.71)	1.2(1.08)	470
BWVS00606045560_00	56	20, 30	100	310	1.7(1.50)	1.1(0.99)	560
BWVS00606045680_00	68	20, 30	100	330	1.6(1.44)	1.0(0.90)	680
BWVS00606045101_00	100	20, 30	100	500	1.3(1.17)	0.8(0.72)	101
BWVS00606045221_00	220	20, 30	100	1300	0.82(0.73)	0.38(0.34)	221
BWVS00606045331_00	330	20, 30	100	1800	0.7(0.63)	0.35(0.31)	331
BWVS00606045102 00	1000	20, 30	100	6000	0.4(0.36)	0.22(0.19)	102

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

- Operating temperature range 55°C ~ 125°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 :

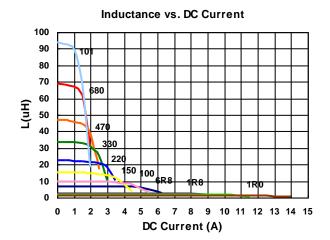
L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

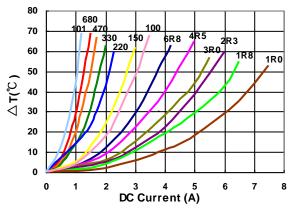
Isat & Irms: Agilent HP4284A



### Test Instruments: HP4284A Material/Impedance Analyzer



# Temperature Change vs. DC Curent



#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) Max	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS00606045R50_L1	0.5	30	100	9	11(9.90)	8.0(7.20)	R50
BWVS006060452R2_L1	2.2	20, 30	100	17	6.8(6.12)	5.5(4.95)	2R2
BWVS006060453R3_L1	3.3	20, 30	100	24	5.5(4.95)	4.7(4.23)	3R3
BWVS006060454R7_L1	4.7	20, 30	100	30	4.6(4.14)	4.0(3.60)	4R7
BWVS006060456R8_L1	6.8	20, 30	100	40	4.0(3.60)	3.5(3.15)	6R8
BWVS00606045100_L1	10	20, 30	100	50	3.2(2.88)	3.2(2.88)	100
BWVS00606045150_L1	15	20, 30	100	80	2.6(2.34)	2.5(2.25)	150
BWVS00606045220_L1	22	20, 30	100	120	2.1(1.89)	2.0(1.80)	220
BWVS00606045330_L1	33	20, 30	100	170	1.7(1.53)	1.6(1.44)	330
BWVS00606045101_L1	100	20, 30	100	595	0.95(0.85)	0.92(0.82)	101

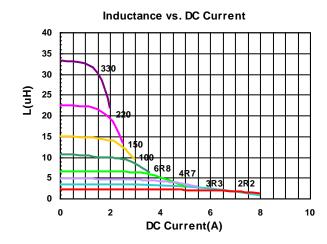
Note: When ordering, please specify tolerance code. Tolerance:  $M=\pm20\%$ ,  $T=\pm30\%$ 

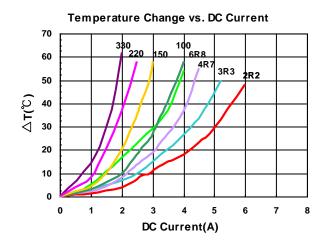
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- $\bullet$   $\;$  Irms for a 40  $^{\circ}\mathbb{C}\;$  temperature rise from 25  $^{\circ}\mathbb{C}\;$  ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A





### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS00808040R90_00	0.9	30	100	7	13.8(12.42)	8.05(7.24)	R90
BWVS008080401R0_00	1.0	30	100	7.5	13.0(11.70)	7.95(7.15)	1R0
BWVS008080401R4_00	1.4	30	100	9	10.8(9.72)	7.8(7.02)	1R4
BWVS008080401R5_00	1.5	30	100	9.5	10.0(9.00)	7.7(6.93)	1R5
BWVS008080402R0_00	2.0	20, 30	100	11	9.6(8.64)	7.4(6.66)	2R0
BWVS008080402R2_00	2.2	20, 30	100	11.5	9.2(8.28)	7.2(6.48)	2R2
BWVS008080402R5_00	2.5	20, 30	100	13	8.2(7.38)	6.3(5.67)	2R5
BWVS008080403R3_00	3.3	20, 30	100	15	7.5(6.75)	6.0(5.40)	3R3
BWVS008080403R9_00	3.9	20, 30	100	18	6.1(5.40)	5.5(4.90)	3R9
BWVS008080404R7_00	4.7	20, 30	100	18	18 6.0(5.40)		4R7
BWVS008080405R6_00	5.6	3 20, 30 100 23		5.7(5.13)	5.2(4.68)	5R6	
BWVS008080406R8_00	6.8	20, 30	100	25	5.4(4.86)	5.1(4.59)	6R8
BWVS00808040100_00	10	20, 30	100	38	4.3(3.87)	3.8(3.42)	100
BWVS00808040120 <u>0</u> 00	12	20, 30	100	45	3.8(3.42)	3.5(3.15)	120
BWVS00808040150_00	15	20, 30	100	50	3.6(3.24)	3.2(2.88)	150
BWVS00808040180 <u>0</u> 00	18	20, 30	100	68	3.1(2.79)	2.7(2.43)	180
BWVS00808040220_00	22	20, 30	100	80	2.8(2.52)	2.6(2.34)	220
BWVS00808040330_00	33	20, 30	100	110	2.3(2.07)	2.0(1.80)	330
BWVS00808040470 00	47	20, 30	100	160	1.9(1.71)	1.75(1.57)	470
BWVS00808040680 <u></u> 00	68	20, 30	100	240	1.7(1.53)	1.45(1.30)	680
BWVS00808040101_00	100	20, 30	100	340	1.4(1.26)	1.10(0.99)	101
BWVS00808040121_00	120	20, 30	100	425	1.1(0.99)	1.0(0.90)	121
BWVS00808040151_00	150	20, 30	100	480	1.0(0.90)	0.9(0.81)	151
BWVS00808040181_00	180	20, 30	100	650	0.98(0.88)	0.7(0.63)	181
BWVS00808040221_00	220	20, 30	100	670	0.94(0.84)	0.60(0.54)	221
BWVS00808040271_00	270	20, 30	100	900	0.83(0.74)	0.55(0.49)	271
BWVS00808040821_00	820	20, 30	100	2800	0.40(0.36)	0.38(0.34)	821

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

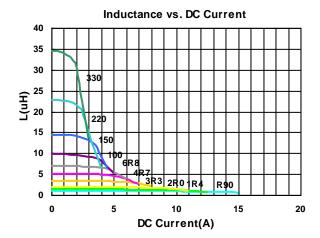
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :

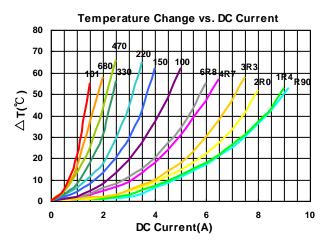
L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A







#### **Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test RDC Frequency $(m\Omega)$ Max $(kHz)$		Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVS008080401R0_L1	1.0	30	100	10	9.5(8.55)	8.5(7.65)	1R0
BWVS008080402R2_L1	2.2	20,30	100	12	7.2(6.48)	7.3(6.57)	2R2
BWVS008080403R3_L1	3.3	20,30	100	19	5.6(5.04)	6.0(5.40)	3R3
BWVS008080404R7_L1	4.7	20,30	100	22	4.4(3.96)	5.0(4.50)	4R7
BWVS008080408R2_L1	8.2	20,30	100	37	3.6(3.24)	3.8(3.42)	8R2
BWVS00808040100_L1	10	20,30	100	42	3.1(2.79)	3.5(3.15)	100
BWVS00808040150_L1	15	20,30	100	58	2.5(2.25)	3.0(2.70)	150
BWVS00808040220_L1	22	20,30	100	85	2.0(1.80)	2.5(2.25)	220

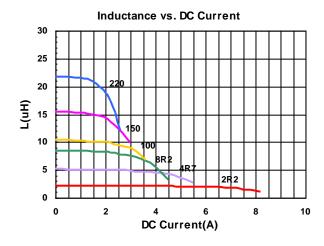
Note: When ordering, please specify tolerance code. Tolerance:  $M=\pm20\%$ ,  $T=\pm30\%$ 

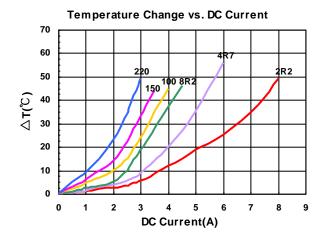
- Operating temperature range 55°C ~ 125°C(Including self temperature rise)
- Isat for Inductance drop 30% from its value without current
- $\bullet$   $\;$  Irms for a 40  $^{\circ}\mathbb{C}\;$  temperature rise from 25  $^{\circ}\mathbb{C}\;$  ambient with current
- Measure Equipment :

L: Agilent HP4284A+Agilent HP42841A, 100kHz 1V

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat & Irms: Agilent HP4284A

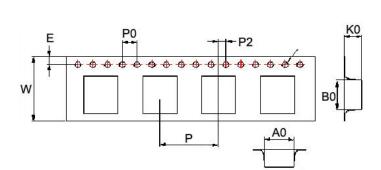




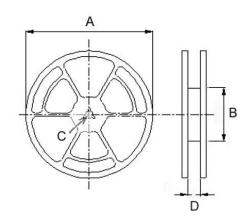


### **Packaging Specifications**

### **Tape Dimensions**



### **Reel Dimensions**



#### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity		
	A0	В0	K0	D	E	F	w	Р	P0	P2	Α	В	С	D	PCS / Reel
BWVS00404012	4.25	4.25	1.30	1.55	1.75	5.5	12	8	4	2	180	60	13	13.2	1000
BWVS00404018	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	180	60	13	13.2	800
BWVS00404026	4.25	4.25	3.00	1.55	1.75	5.5	12	8	4	2	180	60	13	13.2	500
BWVS00505020	5.25	5.25	2.20	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	2000
BWVS00505040	5.20	5.20	4.20	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	1500
BWVS00606020	6.25	6.25	2.20	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	2000
BWVS00606028	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1500
BWVS00606045	6.25	6.25	4.65	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000
BWVS00808040	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	1000

