

BWVH Series



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

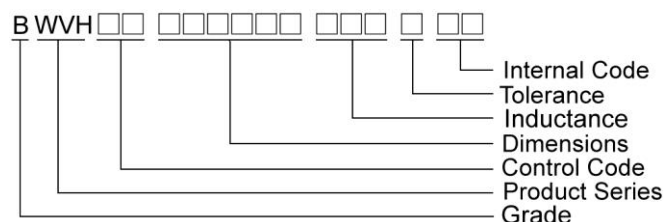
Features

- RoHS, Halogen Free and REACH Compliance
- Shielded with magnetic resin
- Low profile, miniature package size and wide inductance range.
- Low DCR and high rated current.

Applications

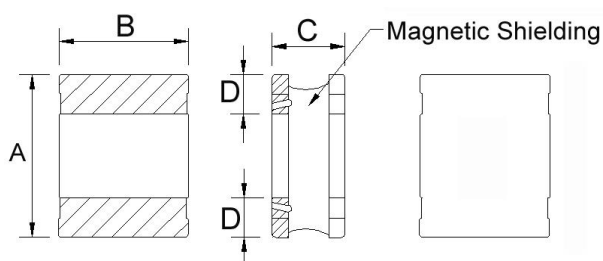
- Smart phone
- DSC
- Tablet PC and other portable devices
- DC/DC converters

Product Identification



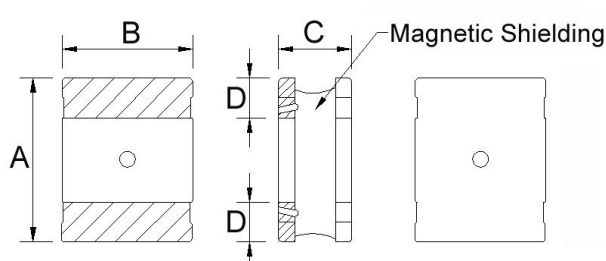
Shape and Dimensions

Figure 1



Recommended Pattern

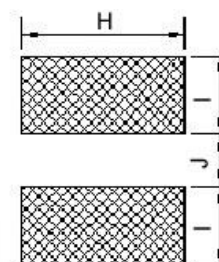
Figure 2



Recommended Pattern

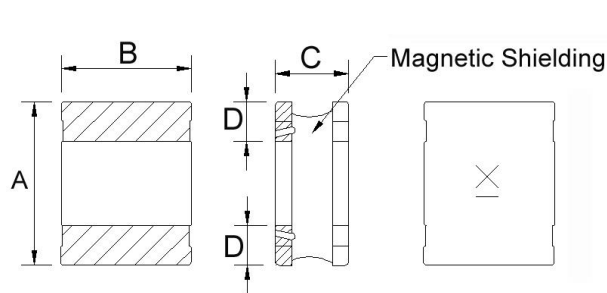
Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
BWVH00201610_H1	1	2.0±0.25	1.6±0.25	1.02 Max	0.6	1.8	0.8	0.8
BWVH00252010_H1	1	2.5±0.25	2.0±0.25	1.00 Max	0.8	2.2	0.85	0.8
BWVH00252012_H1	2	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8

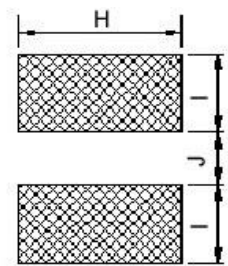


Shape and Dimensions

Figure 3



Recommended Pattern

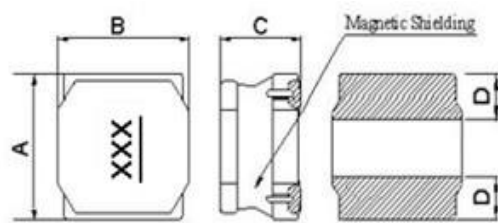


Dimensions in mm

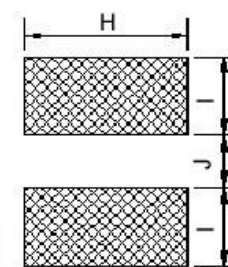
TYPE	FIG	A	B	C	D	H	I	J
BWVH00252012	3	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8

Shape and Dimensions

Figure 4



Recommended Pattern



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
BWVH00404030	4	4.0±0.2	4.0±0.2	3.0 Max	0.95	3.7	1.1	1.9

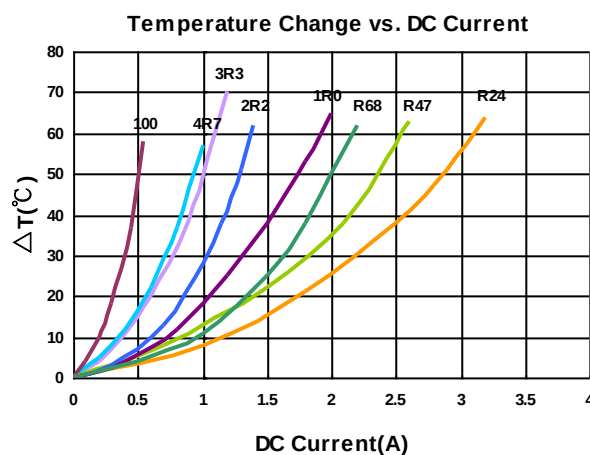
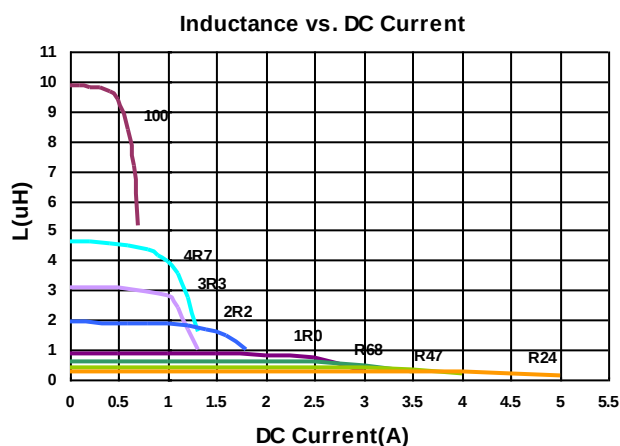
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (mA) Typ. (Max)	Irms (mA) Typ. (Max)
BWVH00201610R16□H1	0.16	20,30	1	0.035	5000(4500)	3200(2800)
BWVH00201610R24□H1	0.24	20, 30	1	0.048	3700(3300)	2500(2100)
BWVH00201610R33□H1	0.33	20, 30	1	0.048	3400(3000)	2500(2100)
BWVH00201610R47□H1	0.47	20, 30	1	0.072	2900(2600)	2100(1800)
BWVH00201610R56□H1	0.56	20, 30	1	0.072	2700(2400)	2100(1800)
BWVH00201610R68□H1	0.68	20, 30	1	0.092	2500(2200)	1800(1500)
BWVH002016101R0□H1	1.0	20, 30	1	0.110	2200(2000)	1500(1200)
BWVH002016102R2□H1	2.2	20, 30	1	0.205	1400(1200)	1150(970)
BWVH002016103R3□H1	3.3	20, 30	1	0.380	1050(940)	900(800)
BWVH002016104R7□H1	4.7	20, 30	1	0.520	900(800)	800(680)
BWVH00201610100□H1	10	20, 30	1	1.100	620(550)	450(380)

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
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



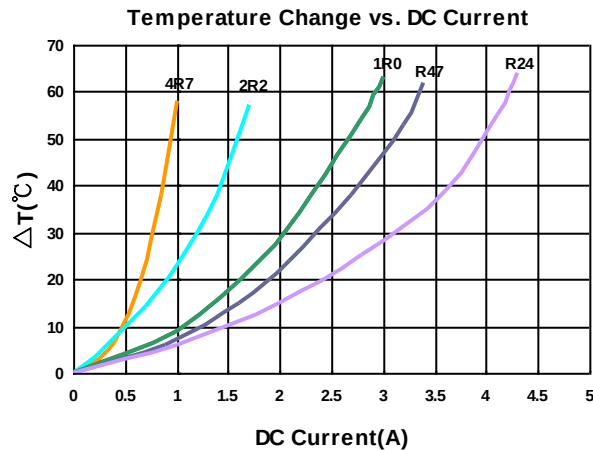
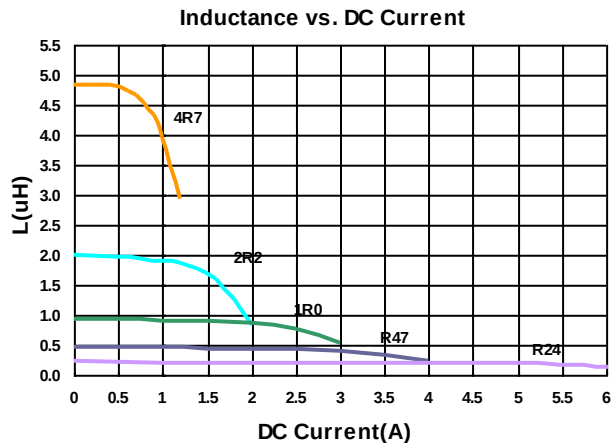
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (mA) Typ. (Max)	Irms (mA) Typ. (Max)
BWVH00252010R24□H1	0.24	20, 30	1	0.030	4700(4200)	3600(3000)
BWVH00252010R47□H1	0.47	20, 30	1	0.043	3300(3000)	2700(2300)
BWVH00252010R68□H1	0.68	20, 30	1	0.062	2800(2500)	2300(1900)
BWVH002520101R0□H1	1.0	20, 30	1	0.080	2300(2100)	1900(1600)
BWVH002520102R2□H1	2.2	20, 30	1	0.135	1600(1400)	1400(1100)
BWVH002520104R7□H1	4.7	20, 30	1	0.330	1000(900)	850(720)
BWVH00252010100□H1	10	20, 30	1	0.670	720(640)	580(490)

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- I rms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment :
- L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



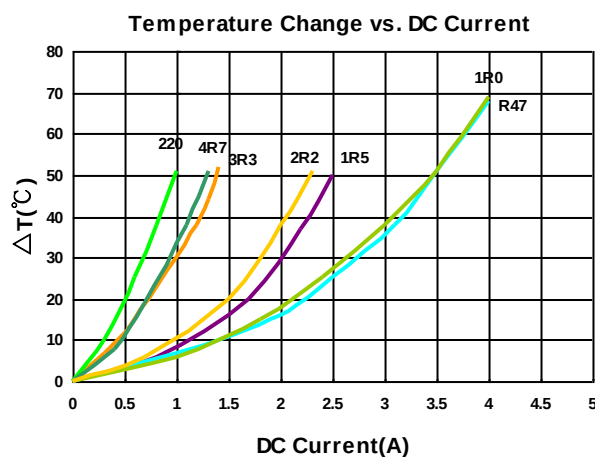
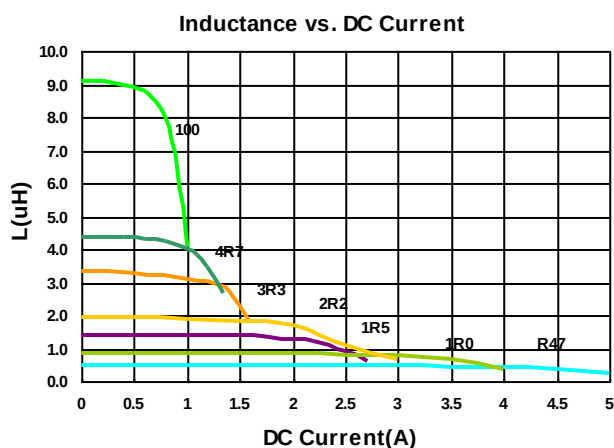
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (mA) Typ. (Max)	Irms (mA) Typ. (Max)
BWVH00252012R47□H1	0.47	20, 30	1	0.031	4100(3700)	3100(2600)
BWVH00252012R68□H1	0.68	20, 30	1	0.031	3100(2900)	3100(2600)
BWVH002520121R0□H1	1.0	20, 30	1	0.049	3200(3000)	3000(2500)
BWVH002520121R5□H1	1.5	20, 30	1	0.088	2300(2100)	2200(1800)
BWVH002520122R2□H1	2.2	20, 30	1	0.099	2200(2000)	2000(1700)
BWVH002520123R3□H1	3.3	20, 30	1	0.190	1400(1200)	1200(1000)
BWVH002520124R7□H1	4.7	20, 30	1	0.235	1300(1100)	1100(930)
BWVH002520126R8□H1	6.8	20,30	1	0.390	1100(990)	840(710)
BWVH00252012100□H1	10	20, 30	1	0.510	920(820)	800(680)

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

- Operating temperature range –55℃ ~ 125℃ (Including self - temperature rise)
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- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment :
- L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



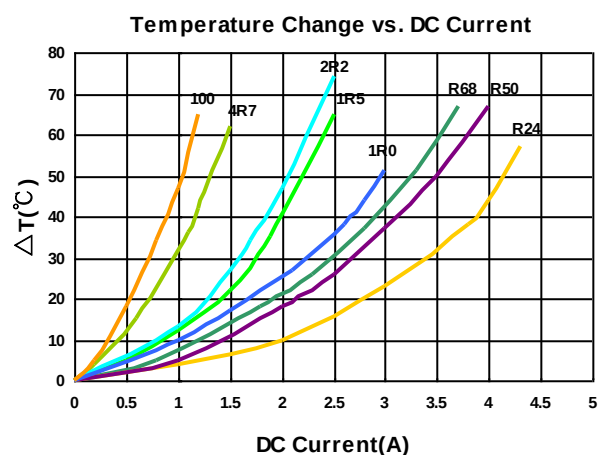
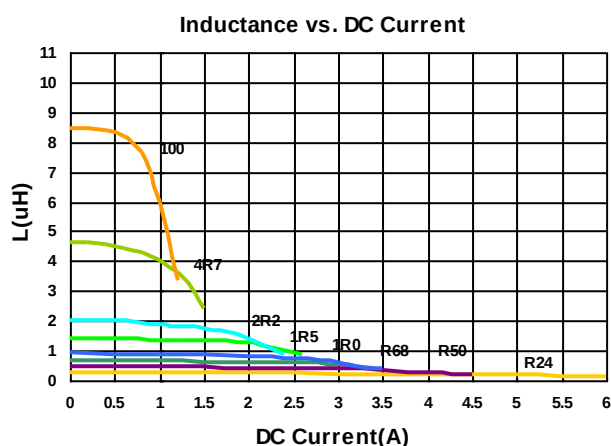
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (mA) Typ. (Max)	Irms (mA) Typ. (Max)	Marking
BWVH00252012R24□00	0.24	20, 30	1	0.021	4700(4200)	3800(3200)	E
BWVH00252012R33□00	0.33	20, 30	1	0.027	4200(3700)	3000(2500)	G
BWVH00252012R47□00	0.47	20, 30	1	0.027	3600(3400)	3000(2500)	J
BWVH00252012R50□00	0.50	20, 30	1	0.027	3600(3400)	3000(2500)	D
BWVH00252012R68□00	0.68	20, 30	1	0.036	2900(2600)	2800(2300)	H
BWVH00252012R10□00	1.0	20, 30	1	0.037	2700(2450)	2600(2200)	A
BWVH00252012R15□00	1.5	20, 30	1	0.075	2200(1900)	1900(1600)	I
BWVH00252012R22□00	2.2	20, 30	1	0.080	1900(1800)	1800(1500)	B
BWVH00252012R47□00	4.7	20, 30	1	0.195	1200(1000)	1100(930)	C
BWVH00252012R68□00	6.8	20, 30	1	0.310	960(840)	860(730)	M
BWVH00252012R100□00	10	20, 30	1	0.400	900(800)	800(680)	F
BWVH00252012R330□00	33	20, 30	1	1.550	430(380)	380(340)	L
BWVH00252012R470□00	47	20, 30	1	1.700	390(350)	340(300)	K

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

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- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent HP4287A+Agilent HP16197A, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & Irms : Agilent HP4284A

Test Instruments : HP4284A Material/Impedance Analyzer



Sealed Power Inductors - BWVH Series

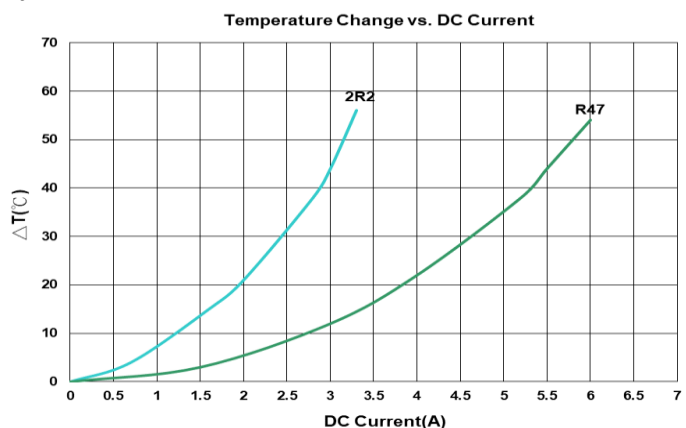
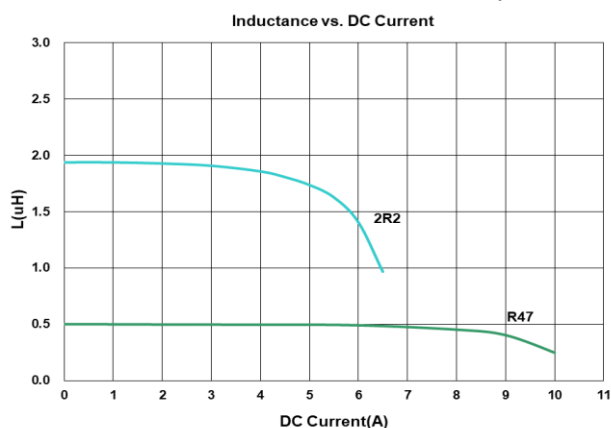
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (KHz)	RDC (mΩ) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVH00404030R47□00	0.47	20,30	100	14	9.00(8.00)	5.20(4.60)	R47
BWVH00404030R68□00	0.7	20,30	100	16	8.00(7.20)	4.60(4.10)	R68
BWVH004040301R0□00	1.0	20,30	100	20	7.00(6.30)	4.50(4.00)	1R0
BWVH004040301R2□00	1.2	20,30	100	20	6.00(5.60)	3.60(3.20)	1R2
BWVH004040301R5□00	1.5	20,30	100	28	5.70(5.10)	3.40(3.00)	1R5
BWVH004040302R2□00	2.2	20,30	100	42	4.40(3.90)	2.80(2.50)	2R2
BWVH004040303R3□00	3.3	20,30	100	56	3.80(3.40)	2.50(2.20)	3R3
BWVH004040304R7□00	4.7	20,30	100	78	3.20(2.90)	2.10(1.90)	4R7
BWVH004040306R8□00	6.8	20,30	100	105	2.70(2.40)	1.80(1.60)	6R8
BWVH00404030100□00	10	20,30	100	150	2.00(1.80)	1.60(1.40)	100
BWVH00404030120□00	12	20,30	100	165	1.90(1.70)	1.40(1.20)	120
BWVH00404030150□00	15	20,30	100	230	1.90(1.70)	1.20(1.10)	150
BWVH00404030220□00	22	20,30	100	300	1.30(1.10)	1.10(0.99)	220
BWVH00404030470□00	47	20,30	100	700	1.00(0.90)	0.75(0.67)	470
BWVH00404030560□00	56	20,30	100	760	0.90(0.81)	0.70(0.63)	560
BWVH00404030680□00	68	20,30	100	800	0.78(0.70)	0.65(0.58)	680
BWVH00404030101□00	100	20,30	100	1400	0.65(0.58)	0.50(0.45)	101
BWVH00404030121□00	120	20,30	100	1800	0.60(0.54)	0.42(0.37)	121
BWVH00404030151□00	150	20,30	100	2250	0.55(0.49)	0.40(0.36)	151
BWVH00404030181□00	180	20,30	100	2600	0.45(0.40)	0.35(0.31)	181
BWVH00404030221□00	220	20,30	100	3000	0.40(0.36)	0.27(0.24)	221

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- L : Agilent HP4285A+HP 42841A
RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat & I rms : Agilent HP4285A

Test Instruments : HP4284A Material/Impedance Analyzer

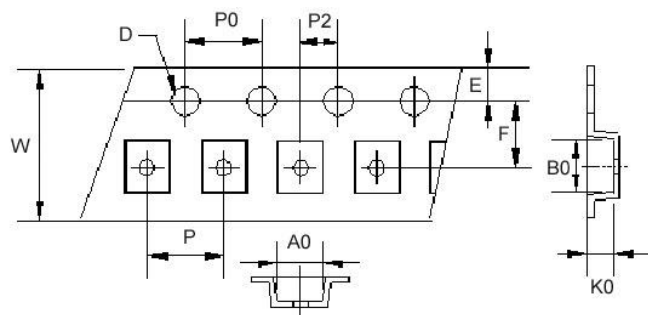


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

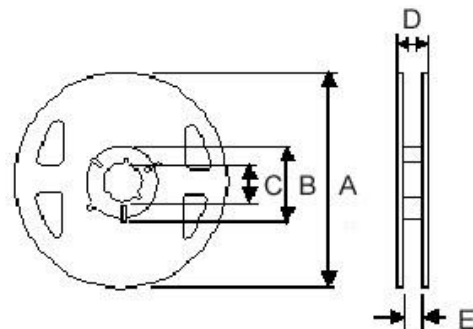
Sealed Power Inductors - BWVH Series

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
BWVH00201610	1.9	2.2	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWVH00252010	2.4	2.7	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWVH00252012	2.4	2.7	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000