

BWMR Series



BWMR series, metal alloy wire wound power inductor, its rated current could be increased up to 35% compare to ferrite base power inductor.

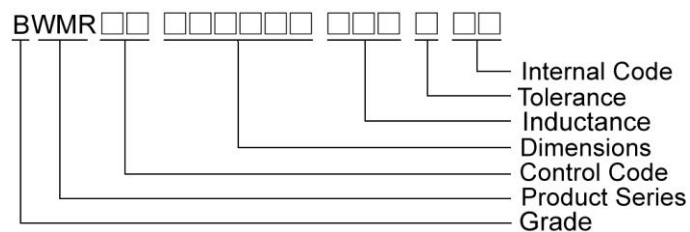
Features

- RoHS, Halogen Free and REACH Compliance
- Constructure Low RDC and high rated current.
- Wide inductance range
- Shielded and miniature package design

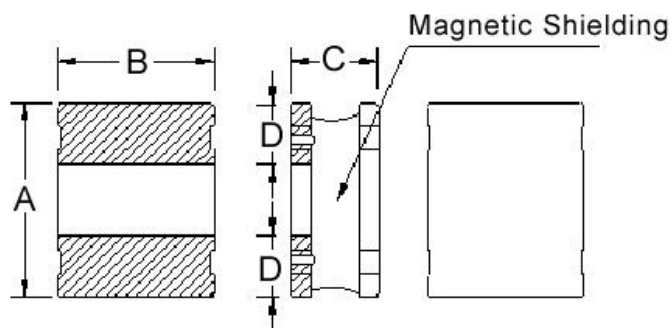
Applications

- Smartphones, tablets and wearable devices
- DSC, camcorders
- DC/DC converters

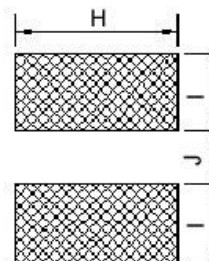
Product Identification



Shape and Dimensions



Recommended Pattern



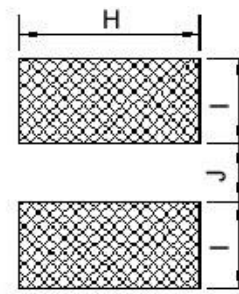
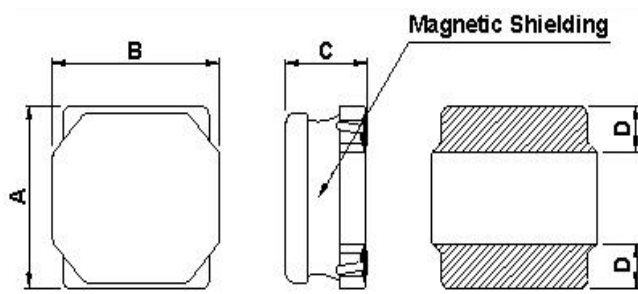
Dimensions in mm

TYPE	A	B	C	D	H	I	J
BWMR00201610	2.0±0.2	1.6±0.2	1.0 Max	0.65	1.7	0.7	0.7
BWMR00201612	2.0±0.2	1.6±0.2	1.2 Max	0.50	1.7	0.6	0.9
BWMR00252010	2.5±0.2	2.0±0.2	1.0 Max	0.85	2.1	0.9	0.8
BWMR00252012	2.5±0.2	2.0±0.2	1.2 Max	0.85	2.1	0.9	0.8
BWMR00302712	3.0±0.2	2.7±0.2	1.2 Max	1.00	2.9	1.1	1.0

Sealed Power Inductors - BWMR Series

Shape and Dimensions

Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D	H	I	J
BWMR00404012	4.0±0.2	4.0±0.2	1.2 Max	1.0	3.7	1.1	2.0
BWMR00404020	4.0±0.2	4.0±0.2	2.0±0.2	1.0	3.7	1.1	1.9

Electrical Characteristics

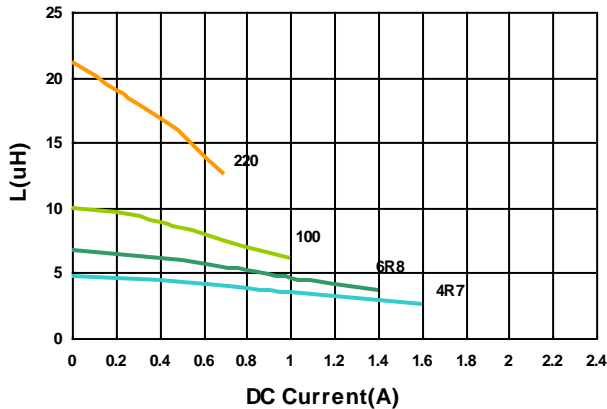
Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR002016101R0□00	1.0	1	20, 30	64	71.0(85.0)	2.90(2.30)	2.50(2.30)
BWMR002016101R5□00	1.5	1	20, 30	49	103(124)	2.20(1.80)	2.00(1.80)
BWMR002016102R2□00	2.2	1	20, 30	39	145(174)	1.90(1.50)	1.70(1.50)
BWMR002016104R7□00	4.7	1	20, 30	25	370(308)	1.00(1.20)	0.86(0.96)
BWMR002016106R8□00	6.8	1	20, 30	19	526(438)	0.86(0.96)	0.73(0.82)
BWMR00201610100□00	10	1	20, 30	15	768(640)	0.70(0.78)	0.64(0.72)
BWMR00201610220□00	22	1	20, 30	9	1560(1300)	0.49(0.55)	0.40(0.45)

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

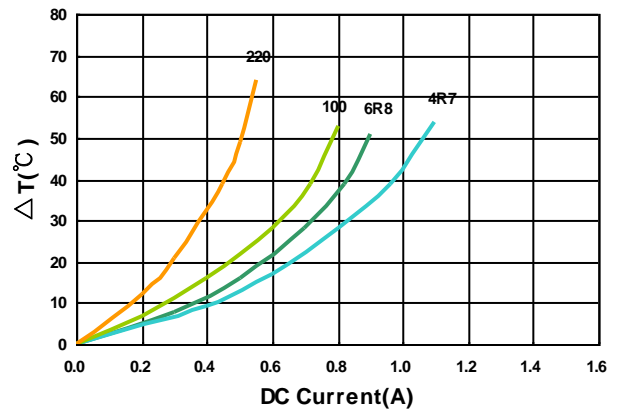
- Operating temperature range—40°C ~ 125°C (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat & Irms : Agilent/HP4285A+Agilent 42841A
SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



Electrical Characteristics

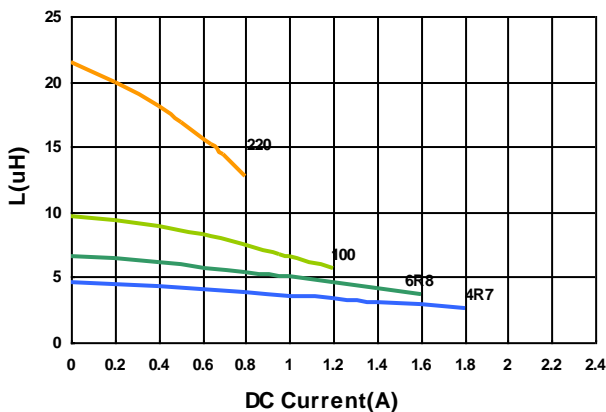
Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR002016121R0□00	1.0	1	20, 30	52	86(103)	2.50(2.00)	2.05(1.85)
BWMR002016121R5□00	1.5	1	20, 30	45	113(135)	2.10(1.60)	1.70(1.50)
BWMR002016122R2□00	2.2	1	20, 30	37	131(158)	1.80(1.40)	1.60(1.40)
BWMR002016123R3□00	3.3	1	20, 30	28	192(231)	1.50(1.30)	1.40(1.20)
BWMR00201612-4R7□00	4.7	1	20, 30	26	324(270)	1.20(1.40)	1.00(1.20)
BWMR00201612-6R8□00	6.8	1	20, 30	20	456(380)	1.00(1.20)	0.78(0.92)
BWMR00201612-100□00	10	1	20, 30	16	720(600)	0.85(0.95)	0.65(0.73)
BWMR00201612120□00	12	1	20, 30	14	745(894)	0.77(0.61)	0.71(0.62)
BWMR00201612150□00	15	1	20, 30	13	858(1029)	0.67(0.58)	0.68(0.58)
BWMR00201612-220□00	22	1	20, 30	10	1500(1250)	0.57(0.64)	0.41(0.46)
BWMR00201612101□00	100	1	20, 30	4	6400(7680)	0.26(0.21)	0.23(0.20)

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

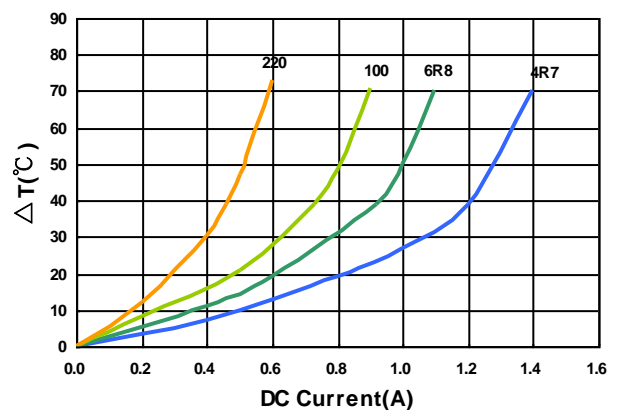
- Operating temperature range –40°C ~ 125°C (Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & Irms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



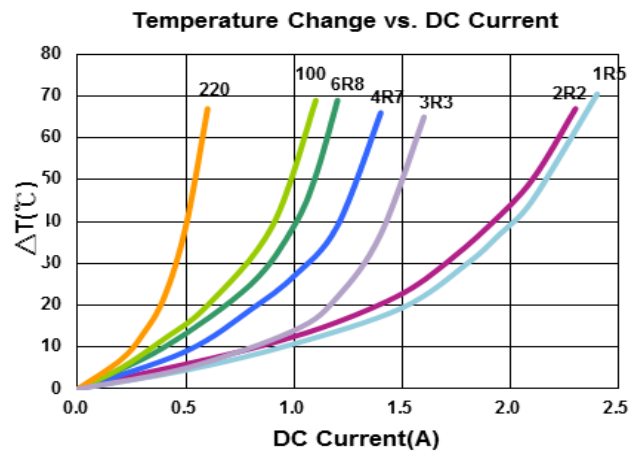
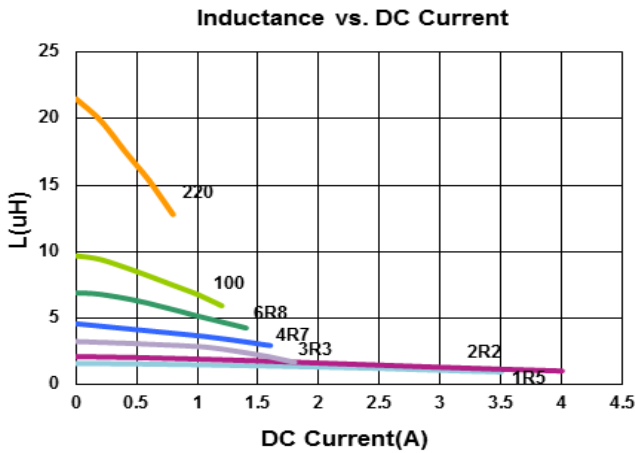
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR00252010R68□00	0.68	1	20, 30	70	43.5(52.2)	4.20(3.30)	3.00(2.70)
BWMR002520101R0□00	1.0	1	20, 30	51	61.5(73.8)	3.70(3.00)	2.60(2.35)
BWMR002520101R5□00	1.5	1	20, 30	40	111.6(93)	2.20(2.80)	1.80(1.95)
BWMR002520102R2□00	2.2	1	20, 30	31	145(121)	1.90(2.30)	1.70(1.90)
BWMR002520103R3□00	3.3	1	20, 30	24	198(165)	1.40(1.60)	1.20(1.40)
BWMR002520104R7□00	4.7	1	20, 30	19	264(220)	1.30(1.40)	1.10(1.20)
BWMR002520106R8□00	6.8	1	20, 30	15	396(330)	1.00(1.10)	0.90(1.00)
BWMR00252010100□00	10	1	20, 30	12	500(435)	0.90(1.00)	0.80(0.90)
BWMR00252010220□00	22	1	20, 30	8	1260(1050)	0.56(0.63)	0.45(0.50)

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

- Operating temperature range —40°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 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer



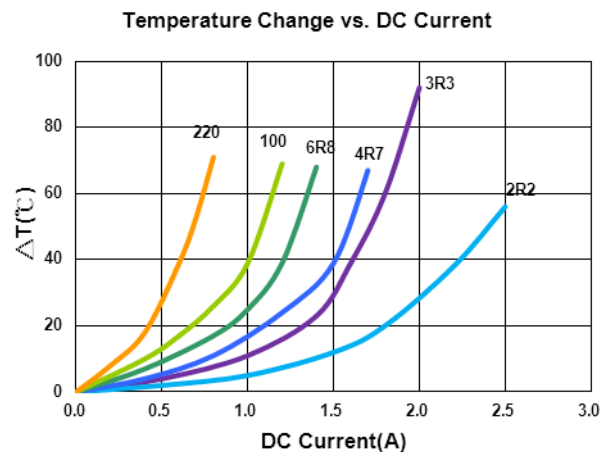
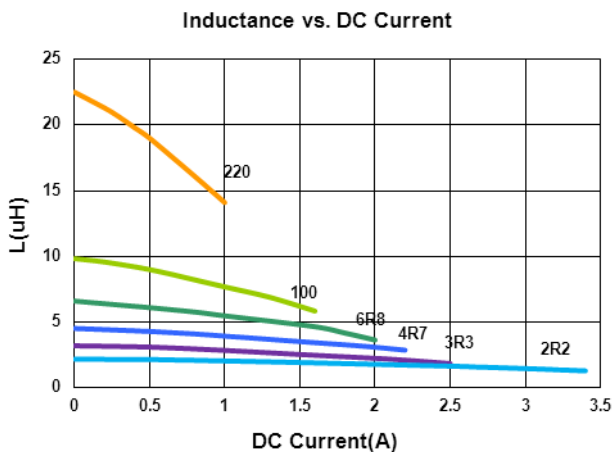
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR00252012R24□00	0.24	1	20, 30	117	21.5(25.8)	7.70(6.20)	4.50(3.90)
BWMR00252012R33□00	0.33	1	20, 30	104	26.5(31.8)	6.60(5.30)	4.05(3.55)
BWMR00252012R47□00	0.47	1	20, 30	71	27.0(32.4)	5.50(5.00)	4.00(3.50)
BWMR00252012R68□00	0.68	1	20, 30	66	36.0(43.2)	4.20(3.50)	3.50(3.10)
BWMR002520121R0□00	1.0	1	20, 30	51	47.0(56.0)	4.00(3.80)	3.30(3.00)
BWMR002520121R5□00	1.5	1	20, 30	38	71.0(85.2)	3.10(2.60)	2.30(2.05)
BWMR002520122R2□00	2.2	1	20, 30	32	110(92)	2.40(2.70)	1.90(2.20)
BWMR002520123R3□00	3.3	1	20, 30	25	186(155)	1.80(2.10)	1.45(1.65)
BWMR002520124R7□00	4.7	1	20, 30	23	240(200)	1.70(1.90)	1.30(1.50)
BWMR002520126R5□00	6.5	1	20, 30	18	250(300)	1.60(1.30)	1.30(1.15)
BWMR002520126R8□00	6.8	1	20, 30	16	345(285)	1.30(1.60)	1.00(1.20)
BWMR00252012100□00	10	1	20, 30	14	480(400)	1.00(1.30)	0.85(1.00)
BWMR00252012150□00	15	1	20, 30	11	629(755)	0.85(0.75)	0.83(0.73)
BWMR00252012220□00	22	1	20, 30	8	1090(910)	0.74(0.83)	0.54(0.60)

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

- Operating temperature range – 40°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 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & Irms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer



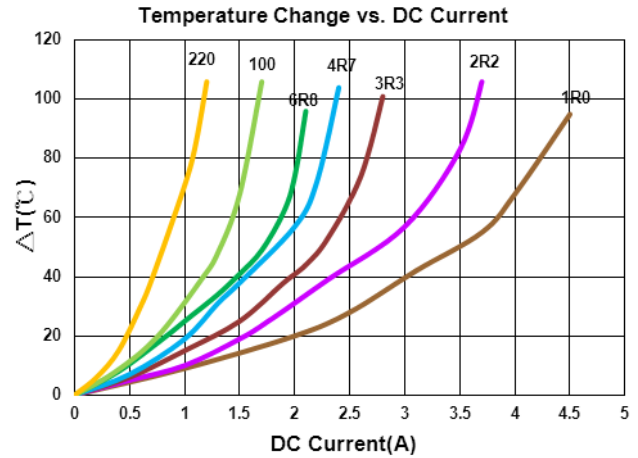
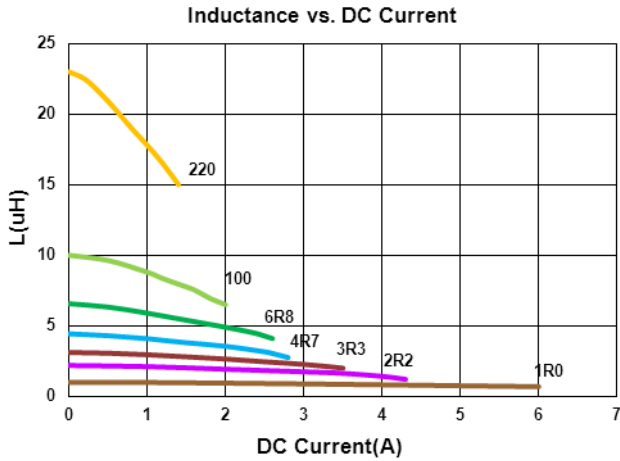
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR003027121R0□00	1.0	1	20, 30	52	64(54)	4.8(5.4)	2.7(3.0)
BWMR003027122R2□00	2.2	1	20, 30	28	114(95)	3.3(3.7)	2.0(2.3)
BWMR003027123R3□00	3.3	1	20, 30	25	165(138)	2.7(3.0)	1.7(1.9)
BWMR003027124R7□00	4.7	1	20, 30	20	234(195)	2.2(2.5)	1.3(1.5)
BWMR003027126R8□00	6.8	1	20, 30	16	318(265)	1.8(2.1)	1.1(1.3)
BWMR00302712100□00	10	1	20, 30	12	444(370)	1.5(1.7)	1.0(1.15)
BWMR00302712220□00	22	1	20, 30	7	954(795)	1.0(1.2)	0.63(0.7)

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

- Operating temperature range—40°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 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat & I rms : Agilent/HP4285A+Agilent 42841A
SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer



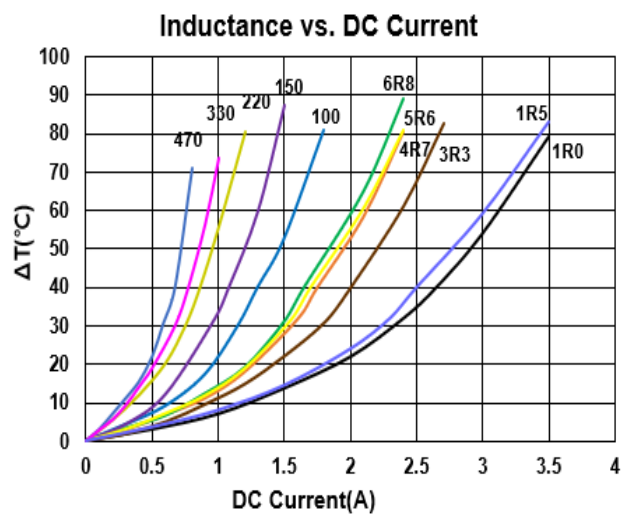
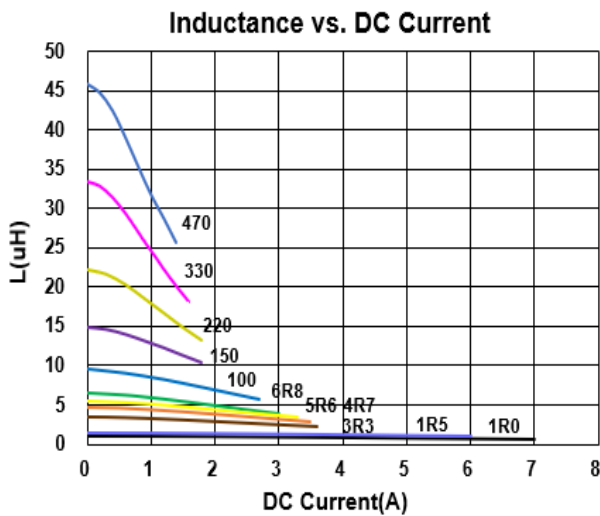
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
BWMR004040121R0□0M	1.0	1	20, 30	60	67(80.4)	5.70(4.70)	2.65(2.40)
BWMR004040121R2□0M	1.2	1	20, 30	51	67(80.4)	4.80(3.70)	2.65(2.40)
BWMR004040121R5□0M	1.5	1	20, 30	42	77(92.4)	4.60(3.60)	2.50(2.30)
BWMR004040123R3□0M	3.3	1	20, 30	26	129(154.8)	3.00(2.40)	2.00(1.80)
BWMR004040124R7□0M	4.7	1	20, 30	18	154(184.8)	2.80(2.20)	1.75(1.60)
BWMR004040125R6□0M	5.6	1	20, 30	17	164(196.8)	2.40(1.90)	1.70(1.55)
BWMR004040126R8□0M	6.8	1	20, 30	15	181(217.2)	2.10(1.60)	1.65(1.50)
BWMR00404012100□0M	10	1	20, 30	12	246(295.2)	1.90(1.50)	1.45(1.39)
BWMR00404012150□0M	15	1	20, 30	11	496(595.2)	1.50(1.20)	1.08(0.96)
BWMR00404012220□0M	22	1	20, 30	9	598(717.6)	1.30(1.00)	0.86(0.75)
BWMR00404012330□0M	33	1	20, 30	7	885(1062)	1.00(0.85)	0.77(0.67)
BWMR00404012470□0M	47	1	20, 30	6	1160(1392)	0.94(0.74)	0.67(0.58)

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

- Operating temperature range –40°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 4285A+Agilent 42841A, or equivalent,1MHz 200mV
RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
Isat & I rms : Agilent/HP4285A+Agilent 42841A
SRF : HP4294A+16092A, or equivalent

Test Instruments : HP4285A Material/Impedance Analyzer



Sealed Power Inductors - BWMR Series

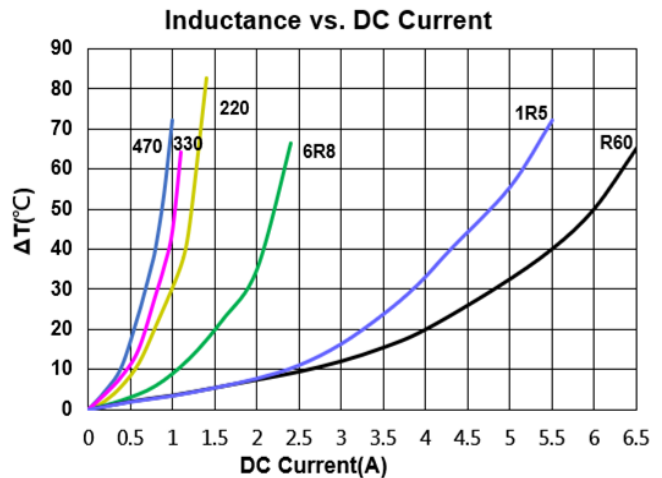
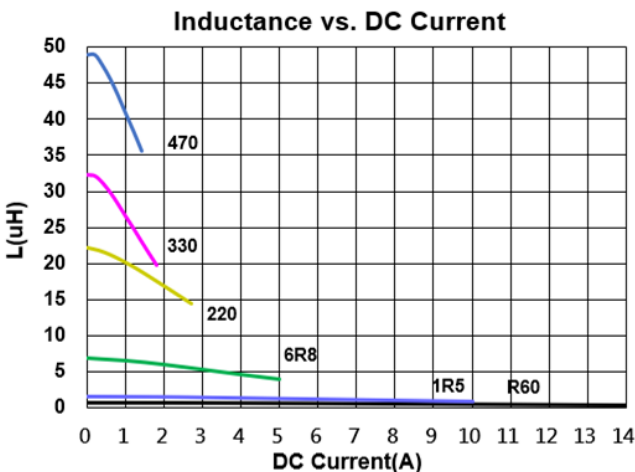
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) Typ.(Max)	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)
BWMR00404020R60□00	0.6	1	20, 30	61	18(22)	11.5(9.50)	5.50(4.85)
BWMR004040201R0□00	1.0	1	20, 30	37	26(31)	10.0(8.00)	5.00(4.50)
BWMR004040201R5□00	1.5	1	20, 30	33	31(37.2)	7.30(5.90)	4.30(3.90)
BWMR004040202R2□00	2.2	1	20, 30	25	44.0(53.0)	7.20(5.80)	3.80(3.40)
BWMR004040203R3□00	3.3	1	20, 30	19	64.0(77.0)	6.00(4.80)	3.10(2.70)
BWMR004040204R7□00	4.7	1	20, 30	17	92.0(110)	4.60(3.70)	2.70(2.40)
BWMR004040206R8□00	6.8	1	20, 30	13	135(162)	4.00(3.20)	2.20(2.00)
BWMR00404020100□00	10	1	20, 30	11	175(210)	3.20(2.50)	2.00(1.80)
BWMR00404020150□00	15	1	20, 30	9	270(324)	2.50(2.00)	1.50(1.30)
BWMR00404020220□00	22	1	20, 30	7	425(510)	2.10(1.70)	1.30(1.10)
BWMR00404020330□00	33	1	20, 30	6	580(696)	1.40(1.10)	0.95(0.80)
BWMR00404020470□00	47	1	20, 30	5	838(1006)	1.20(0.95)	0.75(0.65)

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

- Operating temperature range—40°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 4285A+Agilent 42841A, or equivalent, 1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A, or equivalent

Test Instruments : HP4285A Material/Impedance Analyzer

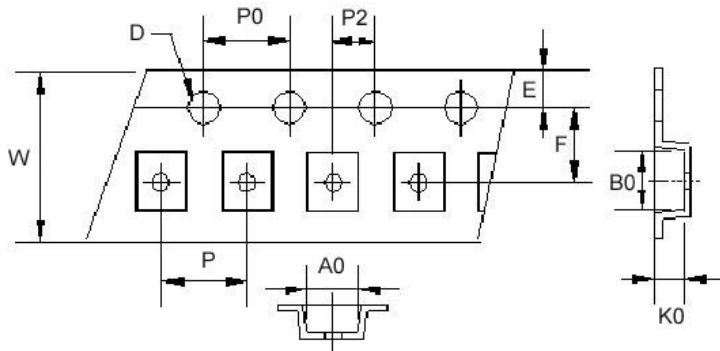


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

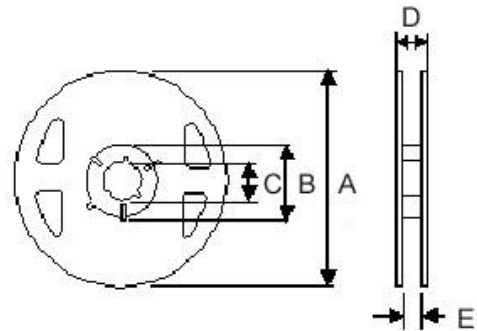
Sealed Power Inductors - BWMR Series

Packaging Specifications

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	E	PCS / Reel
BWMR00201610	1.90	2.20	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWMR00201612	1.95	2.20	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWMR00252010	2.35	2.80	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWMR00252012	2.35	2.80	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWMR00302712	2.90	3.20	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWMR00404012	4.25	4.25	1.40	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
BWMR00404020	4.25	4.25	2.40	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800