

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.

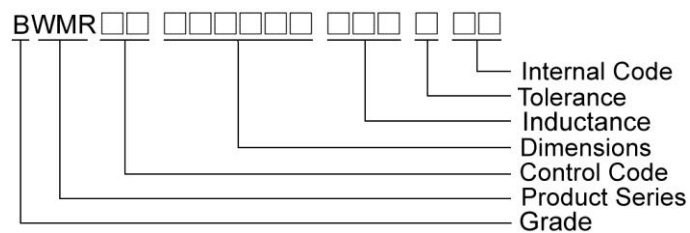
Features

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

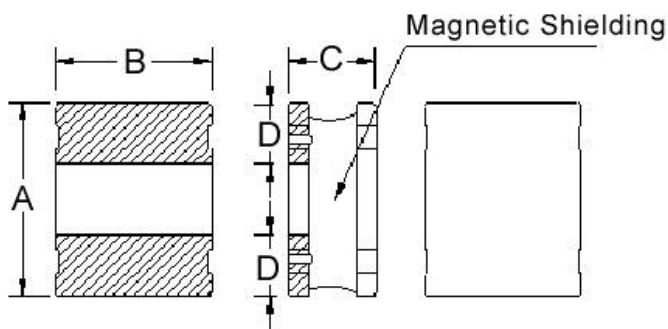
Applications

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

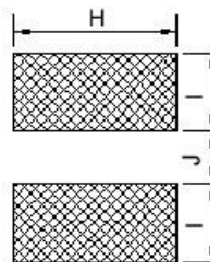
Product Identification



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

Electrical Characteristics

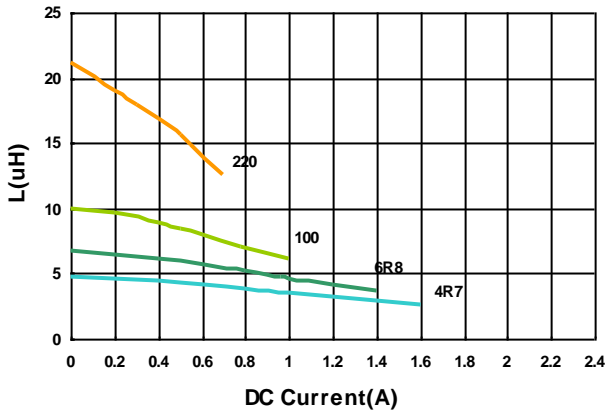
| Part Number | Inductance (uH) | Test Frequency (MHz) | Tolerance (±%) | SRF (MHz) Min | RDC(mΩ) (Max) Typ | Isat (A) (Max) Typ | Irms (A) (Max) Typ |
|--------------------|-----------------|----------------------|----------------|---------------|-------------------|--------------------|--------------------|
| 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%

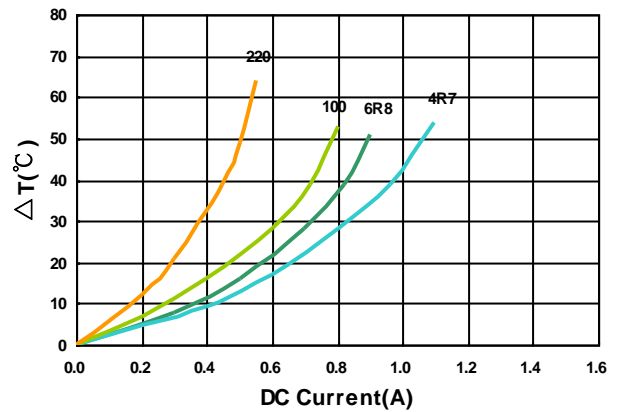
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent 4285A+Agilent 42841A, or equivalent,1MHz 200mV
- RDC : DIGITAL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

Test Instruments : HP4285A Material/Impedance Analyzer

Inductance vs. DC Current



Temperature Change vs. DC Current



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

Electrical Characteristics

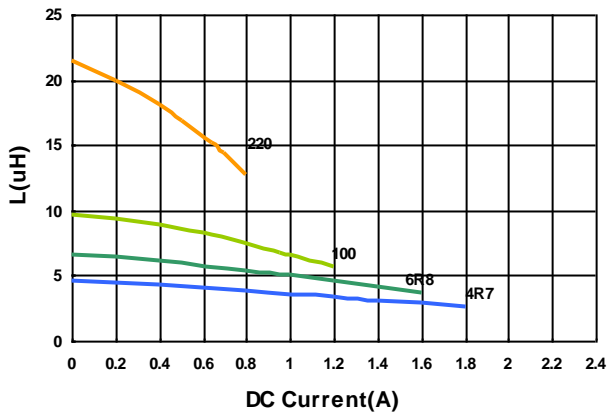
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|---------------------|-----------------|----------------------|----------------|---------------|-------------------|--------------------|--------------------|
| BWMR00201612-4R7□00 | 4.7 | 1 | 20, 30 | 26 | 324(270) | 1.20(1.40) | 1.00(1.20) |
| BWMR00201612-6R8□00 | 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) |
| BWMR00201612-220□00 | 22 | 1 | 20, 30 | 10 | 1500(1250) | 0.57(0.64) | 0.41(0.46) |

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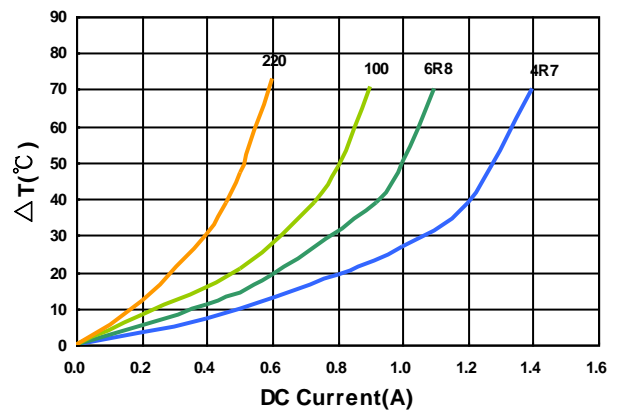
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Inductance vs. DC Current



Temperature Change vs. DC Current



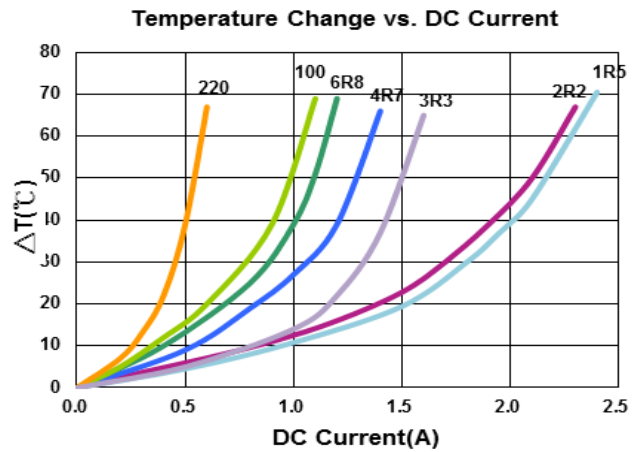
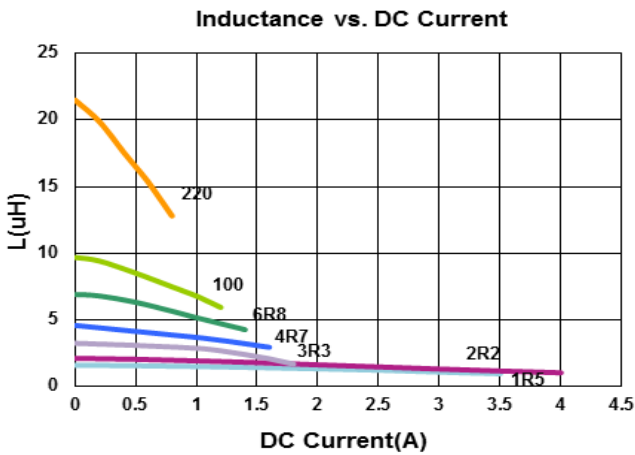
Electrical Characteristics

| Part Number | Inductance (uH) | Test Frequency (MHz) | Tolerance (±%) | SRF (MHz) Min | RDC(mΩ) (Max) Typ | Isat (A) (Max) Typ | Irms (A) (Max) Typ |
|--------------------|-----------------|----------------------|----------------|---------------|-------------------|--------------------|--------------------|
| 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) |

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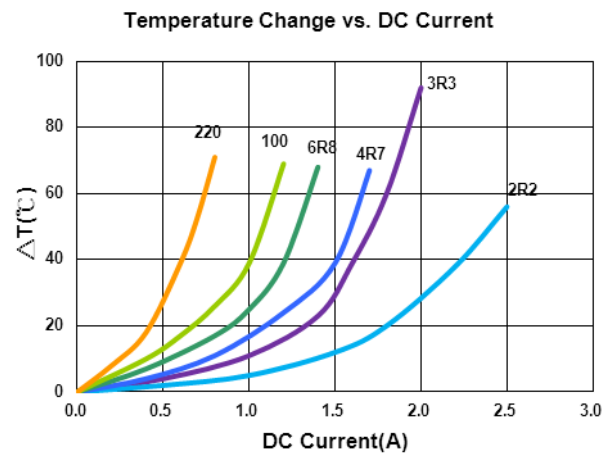
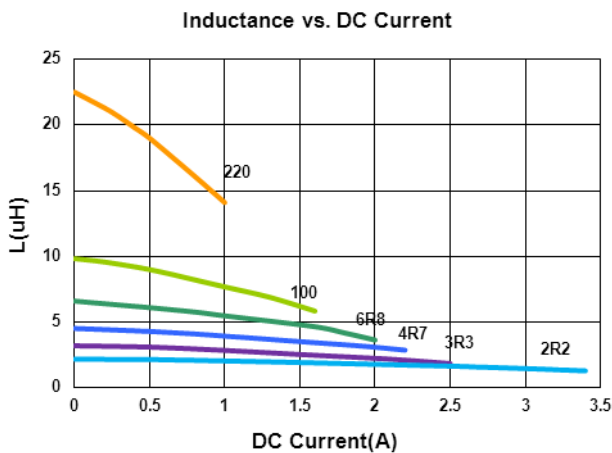
Electrical Characteristics

| Part Number | Inductance (uH) | Test Frequency (MHz) | Tolerance (±%) | SRF (MHz) Min | RDC(mΩ) (Max) Typ | Isat (A) (Max) Typ | Irms (A) (Max) Typ |
|--------------------|-----------------|----------------------|----------------|---------------|-------------------|--------------------|--------------------|
| 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) |
| 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) |
| BWMR00252012220□00 | 22 | 1 | 20, 30 | 8 | 1090(910) | 0.74(0.83) | 0.54(0.60) |

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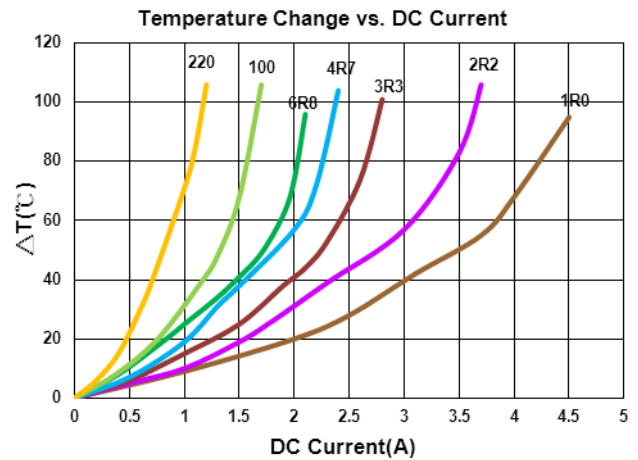
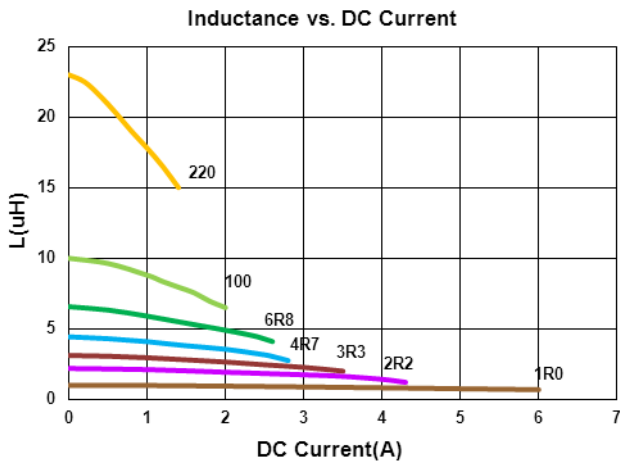
Electrical Characteristics

| 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) |

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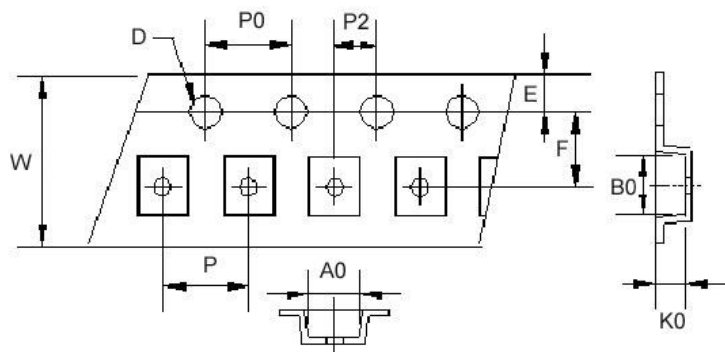
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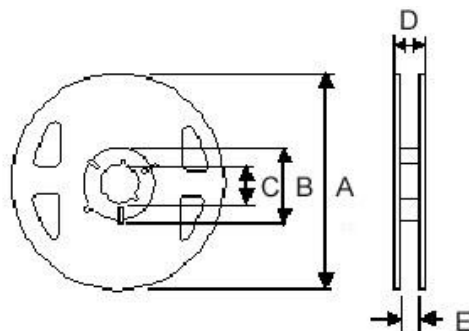
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Packaging Specifications

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 |