

BWLD Series



BWLD series is the newest open type ferrite wire wound chip inductors. The wire wound ferrite construction supports lower DCR than other open type inductors.

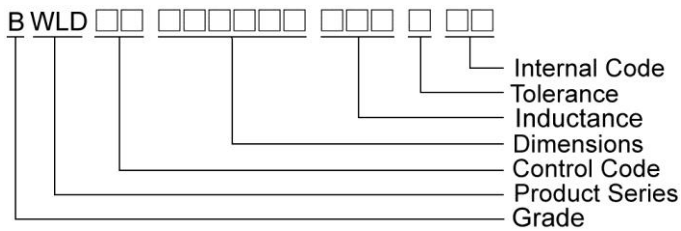
Features

- RoHS compliant
- SMD type wire-wound chip inductor with low DC resistance
- Wide inductance range (0.9uH~100uH)

Applications

- DSC, DVC, MD, PDA
- Portable digital devices

Product Identification



Shape and Dimensions / Recommended Pattern

FIG1

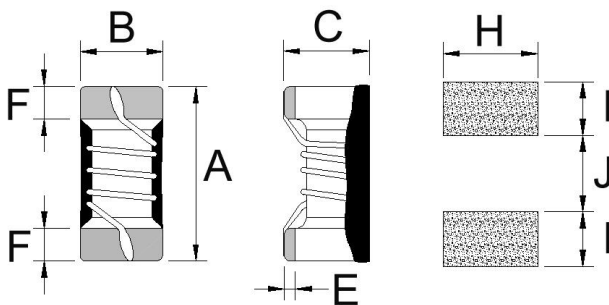
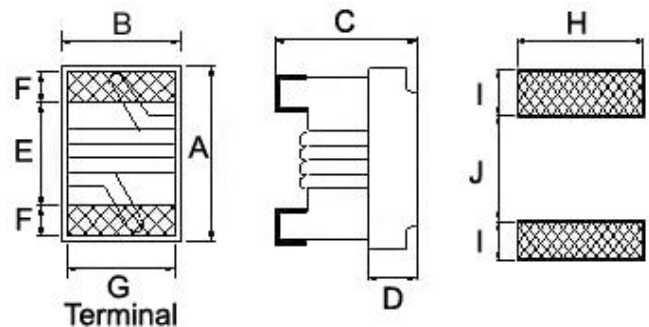


FIG2



Dimensions in mm

| TYPE | FIG | A Max | B Max | C Max | D | E | F | G | H | I | J |
|--------------|-----|----------|---------|----------|------|------|------|------|------|------|------|
| BWLD00181010 | 1 | 1.80±0.1 | 1.0±0.1 | 0.95±0.1 | - | 0.1 | 0.35 | - | 1.02 | 0.64 | 0.64 |
| BWLD00241715 | 2 | 2.4 | 1.72 | 1.52 | 0.70 | 1.00 | 0.50 | 1.27 | 1.78 | 1.02 | 0.76 |
| BWLD00302522 | 2 | 2.99 | 2.50 | 2.20 | 0.70 | 1.52 | 0.51 | 2.03 | 2.54 | 1.02 | 1.27 |

SMD Wire Wound Chip Inductors – BWLD Series

Electrical Characteristics

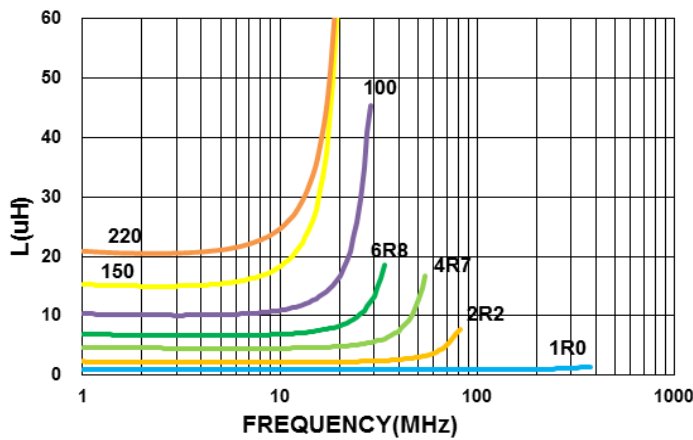
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | Q Typ. | SRF (MHz)Typ. | RDC (Ω ±30%) | IDC (mA)Typ. | Color |
|--------------------|-----------------|----------------|----------------------|--------|---------------|--------------|--------------|--------|
| BWLD001810101R0□00 | 1.0 | 5 / 10 / 20 | 7.96 | 16 | 390 | 0.32 | 700 | Black |
| BWLD001810102R2□00 | 2.2 | 5 / 10 / 20 | 7.96 | 16 | 82 | 0.56 | 580 | Orange |
| BWLD001810104R7□00 | 4.7 | 5 / 10 / 20 | 7.96 | 16 | 51 | 0.97 | 420 | Violet |
| BWLD001810106R8□00 | 6.8 | 5 / 10 / 20 | 7.96 | 16 | 43 | 1.5 | 340 | White |
| BWLD00181010100□00 | 10 | 5 / 10 / 20 | 7.96 | 14 | 36 | 1.85 | 280 | Brown |
| BWLD00181010150□00 | 15 | 5 / 10 / 20 | 7.96 | 14 | 29 | 2.6 | 240 | Orange |
| BWLD00181010220□00 | 22 | 5 / 10 / 20 | 2.52 | 14 | 24 | 3.61 | 200 | Green |

Note: When ordering, please specify tolerance code. Tolerance: J=±5% , K=±10% , M=±20%

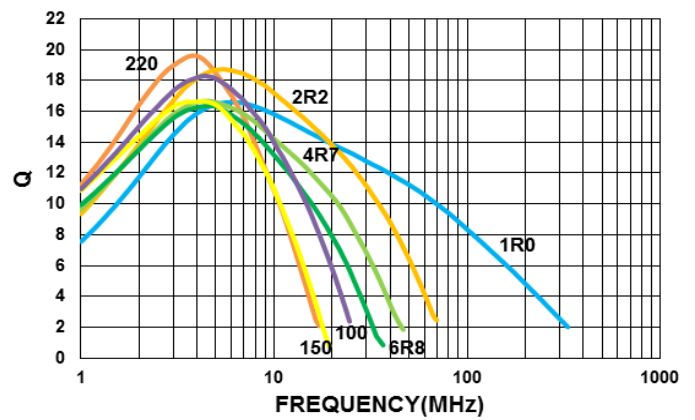
- Operating temperature range - 40°C ~ 105°C(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment :
 L & Q : Agilent E4991A+Agilent HP16197A(over 1MHz)/Agilent HP4285A(under 1MHz)
 SRF : HP8753D/Agilent E4991A
 RDC : Chroma 16502
 IDC : HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments : Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



SMD Wire Wound Chip Inductors – BWLD Series

Electrical Characteristics

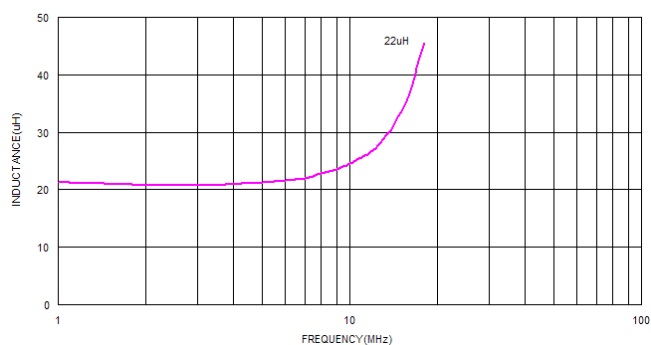
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | Q Typ. | SRF (MHz) Min | RDC ($\Omega \pm 30\%$) | IDC (mA) | Color |
|--------------------|-----------------|----------------|----------------------|--------|---------------|---------------------------|----------|--------|
| BWLD002417151R0□00 | 1.0 | 10 / 20 | 7.96 | 18 | 100 | 0.10 | 800 | Black |
| BWLD002417151R5□00 | 1.5 | 10 / 20 | 7.96 | 18 | 90 | 0.18 | 650 | Brown |
| BWLD002417152R2□00 | 2.2 | 10 / 20 | 7.96 | 18 | 70 | 0.24 | 550 | Red |
| BWLD002417153R3□00 | 3.3 | 10 / 20 | 7.96 | 18 | 55 | 0.30 | 450 | Orange |
| BWLD002417154R7□00 | 4.7 | 10 / 20 | 7.96 | 18 | 50 | 0.47 | 360 | Yellow |
| BWLD002417156R8□00 | 6.8 | 10 / 20 | 7.96 | 18 | 60 | 0.75 | 290 | Green |
| BWLD00241715100□00 | 10 | 10 / 20 | 2.52 | 18 | 25 | 0.90 | 290 | Blue |
| BWLD00241715150□00 | 15 | 10 / 20 | 2.52 | 18 | 25 | 1.60 | 230 | Violet |
| BWLD00241715220□00 | 22 | 10 / 20 | 2.52 | 18 | 17 | 1.95 | 190 | Gray |
| BWLD00241715330□00 | 33 | 10 / 20 | 2.52 | 17 | 15 | 2.60 | 120 | White |
| BWLD00241715470□00 | 47 | 10 / 20 | 2.52 | 17 | 11 | 3.90 | 95 | Black |
| BWLD00241715680□00 | 68 | 10 / 20 | 2.52 | 17 | 11 | 5.50 | 95 | Brown |
| BWLD00241715101□00 | 100 | 10 / 20 | 1.00 | 12 | 9 | 9.00 | 70 | Red |

Note: When ordering, please specify tolerance code. Tolerance: K=±10% , M=±20%

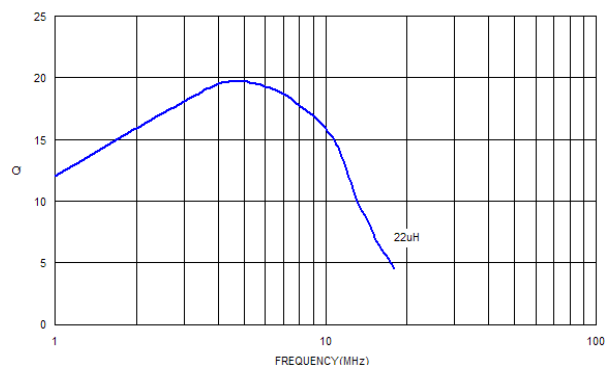
- Operating temperature range - 25°C ~ 105°C(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment :
 L & Q : Agilent E4991A+Agilent HP16197A(over 1MHz)/Agilent HP4285A(under 1MHz)
 SRF : HP8753D/Agilent E4991A
 RDC : Chroma 16502
 IDC : HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments : Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



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.

SMD Wire Wound Chip Inductors – BWLD Series

Electrical Characteristics

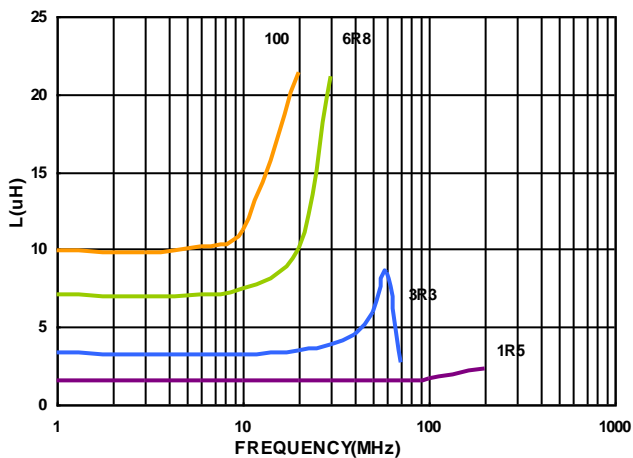
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | Q Typ. | SRF (MHz) Min | RDC (Ω) Max | IDC (mA) Typ. | I _{rms} (mA) Max | Color | | |
|--------------------|-----------------|----------------|----------------------|--------|---------------|-------------|---------------|---------------------------|-----------------|-----------------|-----------------|
| | | | | | | | | | 1 ST | 2 ND | 3 RD |
| BWLD00302522R9□00 | 0.9 | 10 | 2.5 | 25 | 300 | 0.1 | 1400 | 1300 | White | Black | Brown |
| BWLD003025221R1□00 | 1.1 | 10 | 2.5 | 24 | 275 | 0.105 | 1300 | 1200 | Brown | Brown | Red |
| BWLD003025221R3□00 | 1.3 | 5 / 10 | 2.5 | 24 | 220 | 0.11 | 1200 | 1100 | Brown | Orange | Red |
| BWLD003025221R5□00 | 1.5 | 5 / 10 | 2.5 | 22 | 210 | 0.125 | 1100 | 1000 | Brown | Yellow | Red |
| BWLD003025221R9□00 | 1.9 | 5 / 10 | 2.5 | 22 | 165 | 0.14 | 1000 | 1000 | Brown | White | Red |
| BWLD003025222R2□00 | 2.2 | 5 / 10 | 2.5 | 21 | 75 | 0.155 | 950 | 950 | Red | Red | Red |
| BWLD003025222R7□00 | 2.7 | 5 / 10 | 2.5 | 22 | 57 | 0.19 | 800 | 900 | Red | Violet | Red |
| BWLD003025223R3□00 | 3.3 | 5 / 10 | 2.5 | 21 | 54 | 0.21 | 750 | 800 | Orange | Orange | Red |
| BWLD003025223R9□00 | 3.9 | 5 / 10 | 2.5 | 21 | 50 | 0.22 | 700 | 800 | Orange | White | Red |
| BWLD003025224R7□00 | 4.7 | 5 / 10 | 2.5 | 27 | 48 | 0.435 | 700 | 650 | Yellow | Violet | Red |
| BWLD003025225R8□00 | 5.8 | 5 / 10 | 2.5 | 21 | 33 | 0.28 | 550 | 750 | Green | Gray | Red |
| BWLD003025226R8□00 | 6.8 | 5 / 10 | 2.5 | 20 | 28 | 0.315 | 500 | 700 | Blue | Gray | Red |
| BWLD003025228R2□00 | 8.2 | 5 / 10 | 2.5 | 20 | 24 | 0.395 | 500 | 650 | Gray | Red | Red |
| BWLD00302522100□00 | 10 | 5 / 10 | 2.5 | 22 | 20 | 0.48 | 450 | 550 | Brown | Black | Orange |

Note: When ordering, please specify tolerance code. Tolerance: J=±5% , K=±10%

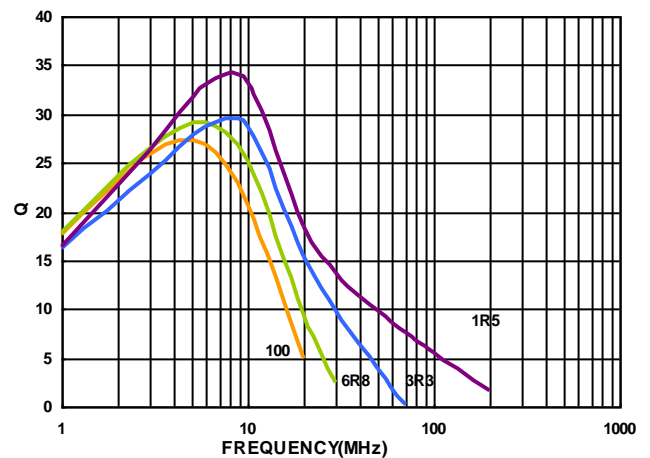
- Operating temperature range - 25°C ~ 105°C(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- I_{rms} for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 - L : Agilent E4991A/HP4287A+16197A
 - SRF : HP8753D/Agilent E4991A
 - RDC : Chroma 16502
 - IDC : HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments : Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency

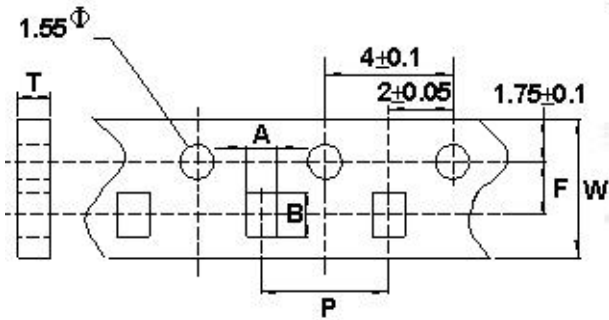


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Packaging Specifications

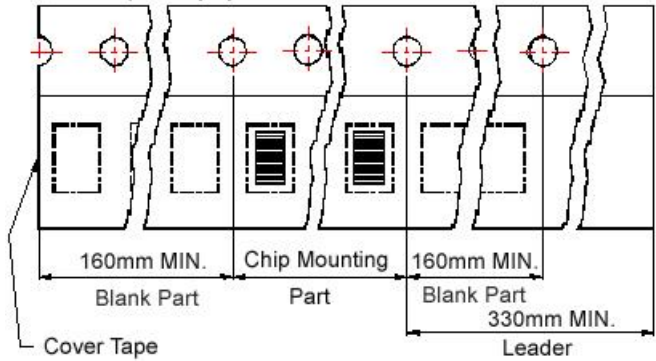
Tape Dimensions

FIG1



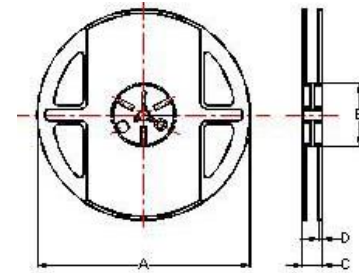
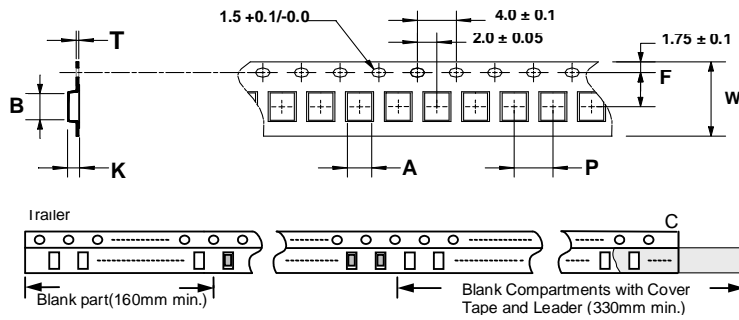
Tape Material

Carrier Tape: Paper
Cover Tape: Polystyrene



Reel Dimensions

FIG2



Dimensions in mm

| TYPE | FIG | Tape Dimensions | | | | | | | Reel Dimensions | | | | Quantity PCS / REEL |
|--------------|-----|-----------------|------|------|---|---|-----|------|-----------------|----|----|-----|------------------------|
| | | A | B | T | W | P | F | K | A | B | C | D | |
| BWLD00181010 | 1 | 1.20 | 2.42 | 1.1 | 8 | 4 | 3.5 | - | 178 | 60 | 12 | 1.5 | 4000 |
| BWLD00241715 | 2 | 1.60 | 2.42 | 0.22 | 8 | 4 | 3.5 | 1.45 | 178 | 60 | 12 | 1.5 | 2000 |
| BWLD00302522 | 2 | 2.40 | 2.93 | 0.26 | 8 | 4 | 3.5 | 2.25 | 178 | 60 | 12 | 1.5 | 2000 |