

SMD Wire Wound Ceramic Chip Inductors

BWHC Series



Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

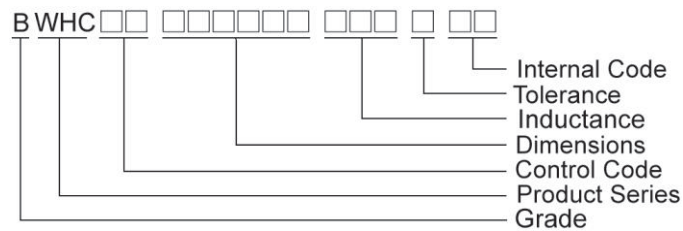
Features

- RoHS compliant
- Ceramic body and wire wound construction provide highest SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency
- The high current rating and low loss to fit the RF applications

Applications

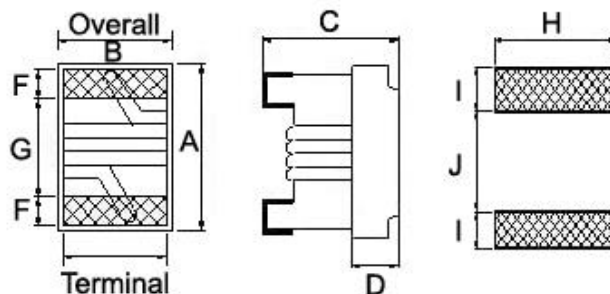
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification



Shape and Dimensions/ Recommended Pattern

BWHC00181210



Dimensions

| | | A Max | B Max | C Max | D | E | F | G | H | I | J |
|---------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BWHC00181210 | inch | 0.071 | 0.049 | 0.04 | 0.015 | 0.030 | 0.013 | 0.034 | 0.040 | 0.025 | 0.025 |
| | mm | 1.80 | 1.25 | 1.02 | 0.38 | 0.76 | 0.33 | 0.86 | 1.02 | 0.64 | 0.64 |

Electrical Characteristics

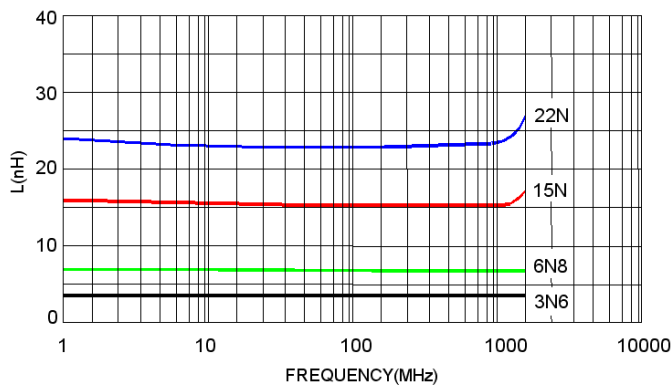
| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | I _{rms} (mA) Max | Color |
|--------------------|-----------------|----------------|----------------------|-------|----------------------|---------------|-------------|---------------------------|--------|
| BWHC001812101N6□00 | 1.6 | 10 / 5 | 250 | 24 | 250 | 12500 | 0.030 | 2400 | Black |
| BWHC001812103N6□00 | 3.6 | 10 / 5 | 250 | 24 | 250 | 5900 | 0.048 | 2300 | Brown |
| BWHC001812103N9□00 | 3.9 | 10 / 5 | 250 | 25 | 250 | 5900 | 0.054 | 2200 | Red |
| BWHC001812104N3□00 | 4.3 | 10 / 5 | 250 | 25 | 250 | 5800 | 0.054 | 2100 | Orange |
| BWHC001812106N8□00 | 6.8 | 10 / 5 | 250 | 35 | 250 | 5800 | 0.054 | 2100 | Orange |
| BWHC001812107N5□00 | 7.5 | 10 / 5 | 250 | 35 | 250 | 3700 | 0.059 | 2100 | Yellow |
| BWHC001812108N2□00 | 8.2 | 10 / 5 | 250 | 38 | 250 | 3700 | 0.071 | 2000 | Brown |
| BWHC0018121010N□00 | 10 | 10 / 5 | 250 | 38 | 250 | 3700 | 0.071 | 2000 | Green |
| BWHC0018121012N□00 | 12 | 10 / 5 / 2 | 250 | 38 | 250 | 3000 | 0.075 | 2000 | Blue |
| BWHC0018121015N□00 | 15 | 10 / 5 / 2 | 250 | 38 | 250 | 2800 | 0.080 | 1900 | Violet |
| BWHC0018121018N□00 | 18 | 10 / 5 / 2 | 250 | 40 | 250 | 2800 | 0.099 | 1900 | Gray |
| BWHC0018121022N□00 | 22 | 10 / 5 / 2 | 250 | 42 | 250 | 2400 | 0.099 | 1800 | White |
| BWHC0018121024N□00 | 24 | 10 / 5 / 2 | 250 | 42 | 250 | 2400 | 0.105 | 1800 | Black |

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

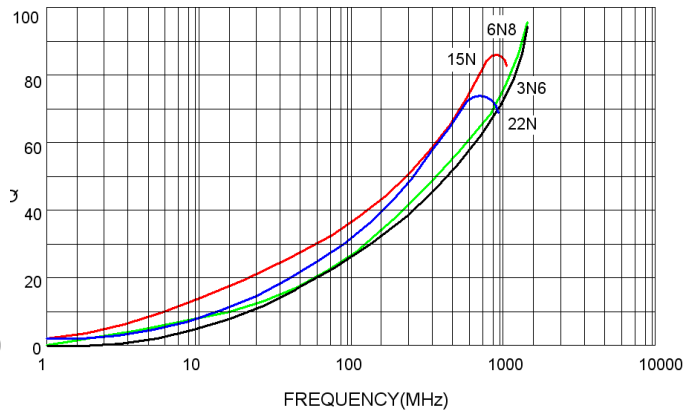
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I_{rms} for a 20°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L & Q : Agilent E4991A+Agilent HP16197A
 SRF : Agilent HP8753D
 RDC : HP4338B or Chroma 16502
 I_{rms} : HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments : Agilent E4991A Material/Impedance Analyzer

Typical **L** vs. **F**requency

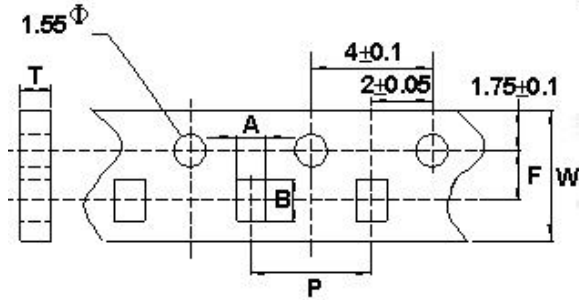


Typical **Q** vs. **F**requency



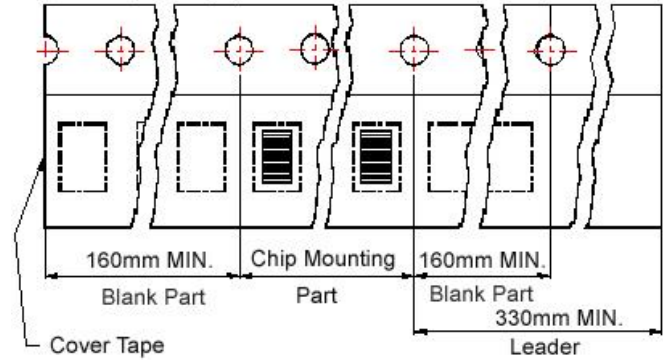
Packaging Specifications

Tape Dimensions

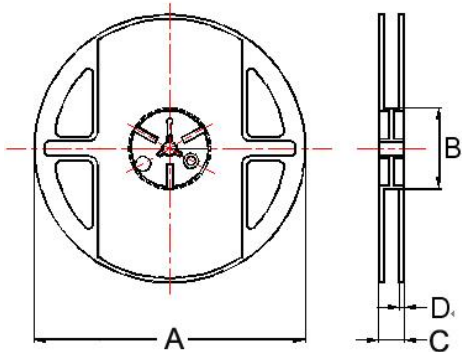


Tape Material

Carrier Tape: Paper
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | Reel Dimensions | | | | Quantity PCS / REEL |
|--------------|-----------------|------|------|---|---|-----|-----------------|----|----|-----|------------------------|
| | A | B | T | W | P | F | A | B | C | D | |
| BWHC00181210 | 1.25 | 1.90 | 1.05 | 8 | 4 | 3.5 | 178 | 60 | 12 | 1.5 | 4000 |

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.