

Multilayer Ferrite Chip Beads (High Speed)



Features

- Monolithic structure for closed magnetic path and high reliability
- Standard EIA/EIAJ chip sizes such as 0603/1608, 0805/2012, 1206/3216
- Superior termination bonding strength
- Nickel barrier with solder overplated termination offering excellent solderability and solder leach resistance, suitable for both wave and reflow soldering processes
- RoHS compliant when -T option is specified

Applications

- High frequency noise suppression in computers and peripherals
- High frequency noise suppression in telecommunications
- High frequency noise suppression in data communications
- High frequency noise suppression in consumer electronics

Recommended PC Board Land Patterns

| CHIP SIZE EIA/EIAJ | L INCH (mm) | G INCH (mm) | H INCH (mm) |
|-----------------------|----------------|----------------|----------------|
| 0603(1608) | 0.102 (2.60) | 0.022 (0.55) | 0.037 (0.94) |
| 0805(2012) | 0.118 (3.00) | 0.026 (0.66) | 0.057 (1.45) |
| 1206(3216) | 0.173 (4.40) | 0.059 (1.50) | 0.071 (1.80) |

Operating Temperature

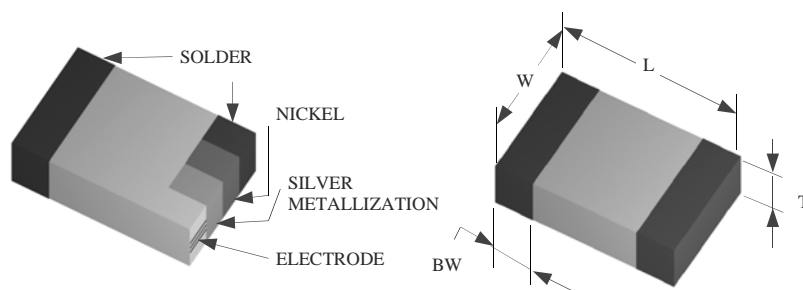
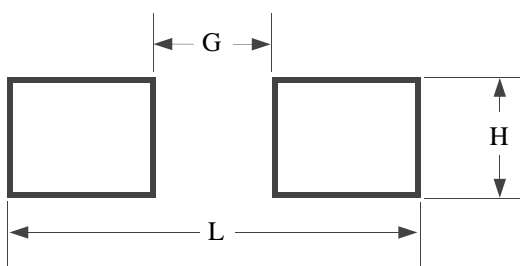
-55°C — +125°C

Product Identification

MCB 0805 S 180 P I - I
(1) (2) (3) (4) (5) (6) (7)

- (1) Series code:
MCB: Multilayer Ferrite Chip Bead
- (2) Dimensions: L x W inches
The first two digits: L (length)
The last two digits: W (width)
- (3) Characteristic code: S
- (4) Value code: Impedance (ohms at 100 MHz)
The first two digits are significant. The last digit specifies the number of zeros to follow.
- (5) Tolerance code:
P = $\pm 25\%$
Other tolerances may be available upon request.
- (6) Package code:
T = Tape & Reel
B = Bulk
- (7) Termination type code:
T = 100% Sn Plating

Shape and Dimensions



| CHIP SIZE EIA/EIAJ | LENGTH (L) INCH (mm) | WIDTH (W) INCH (mm) | THICKNESS (T) INCH (mm) | TERMINATION (BW) INCH (mm) |
|-----------------------|--|--|--|--|
| 0603/1608 | 0.063 \pm 0.006 (1.60 \pm 0.15) | 0.031 \pm 0.006 (0.80 \pm 0.15) | 0.031 \pm 0.006 (0.80 \pm 0.15) | 0.014 \pm 0.006 (0.36 \pm 0.15) |
| 0805/2012 | 0.079 \pm 0.008 (2.00 \pm 0.20) | 0.049 \pm 0.008 (1.25 \pm 0.20) | 0.035 \pm 0.008 (0.90 \pm 0.20) | 0.020 \pm 0.012 (0.51 \pm 0.30) |
| 1206/3216 | 0.126 \pm 0.008 (3.20 \pm 0.20) | 0.063 \pm 0.008 (1.60 \pm 0.20) | 0.043 \pm 0.008 (1.10 \pm 0.20) | 0.020 \pm 0.012 (0.51 \pm 0.30) |

Other sizes and values may be available upon customer's request.

MCB Series (High Speed)

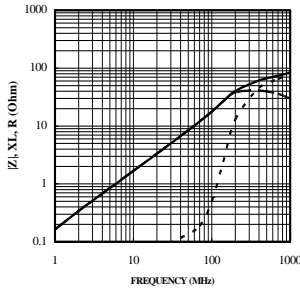
| <i>AEM Part Number</i> | <i>Z@100Mz Ω</i> | <i>Tolerance</i> | <i>Max. R_{DC} Ω</i> | <i>Max. I A</i> |
|------------------------|--|------------------|--|---------------------|
| MCB0603S050 | 5 | P | 0.10 | 0.70 |
| MCB0603S180 | 18 | P | 0.10 | 0.40 |
| MCB0603S300 | 30 | P | 0.25 | 0.40 |
| MCB0603S600 | 60 | P | 0.30 | 0.30 |
| MCB0603S121 | 120 | P | 0.40 | 0.30 |
| MCB0603S151 | 150 | P | 0.40 | 0.30 |
| MCB0603S221 | 220 | P | 0.35 | 0.30 |
| MCB0603S301 | 300 | P | 0.35 | 0.30 |
| MCB0603S421 | 420 | P | 0.50 | 0.20 |
| MCB0603S601 | 600 | P | 0.65 | 0.20 |
| MCB0603S102 | 1000 | P | 0.60 | 0.20 |
| MCB0805S180 | 18 | P | 0.10 | 0.60 |
| MCB0805S300 | 30 | P | 0.20 | 0.50 |
| MCB0805S600 | 60 | P | 0.20 | 0.50 |
| MCB0805S121 | 120 | P | 0.25 | 0.30 |
| MCB0805S201 | 200 | P | 0.35 | 0.30 |
| MCB0805S221 | 220 | P | 0.35 | 0.30 |
| MCB0805S301 | 300 | P | 0.35 | 0.30 |
| MCB0805S601 | 600 | P | 0.40 | 0.20 |
| MCB0805S102 | 1000 | P | 0.60 | 0.20 |
| MCB0805S152 | 1500 | P | 0.60 | 0.20 |
| MCB0805S222 | 2200 | P | 0.60 | 0.20 |
| MCB0805S272 | 2700 | P | 0.80 | 0.20 |
| MCB1206S190 | 19 | P | 0.10 | 0.60 |
| MCB1206S300 | 30 | P | 0.10 | 0.60 |
| MCB1206S600 | 60 | P | 0.20 | 0.50 |
| MCB1206S121 | 120 | P | 0.25 | 0.30 |
| MCB1206S301 | 300 | P | 0.30 | 0.25 |
| MCB1206S601 | 600 | P | 0.30 | 0.25 |
| MCB1206S102 | 1000 | P | 0.55 | 0.20 |

Please add tolerance, packaging and termination type codes when ordering.

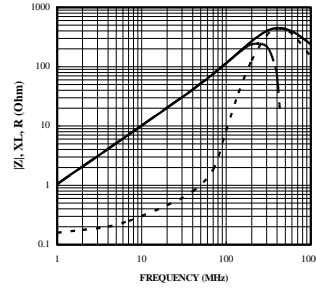
Electrical Characteristics

(Curves not listed are available upon request)

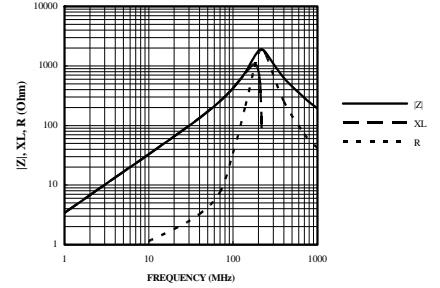
MCB0603S180



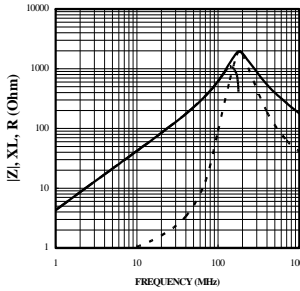
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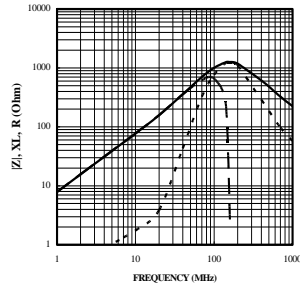
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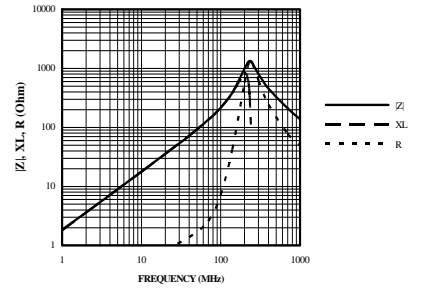
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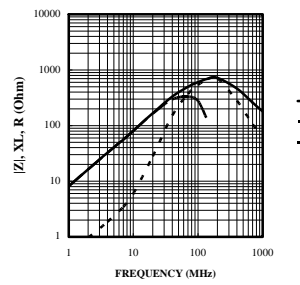
MCB0603S102



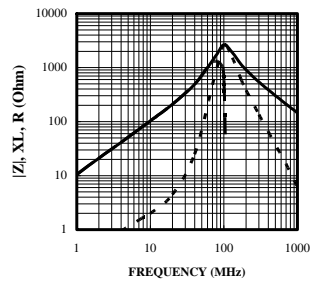
MCB0805S201



MCB0805S601



MCB0805S272



MCB1206S601

