

# Multilayer Ferrite Chip Beads (High Speed)



## Features

- Monolithic structure for closed magnetic path and high reliability
- Standard EIA/EIAJ chip sizes such as 0402/1005, 0603/1608, 0805/2012, and 1206/3216
- Superior termination bonding strength
- Nickel barrier with solder overlated 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)
0402(1005)	0.063 (1.60)	0.016 (0.40)	0.024 (0.60)
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

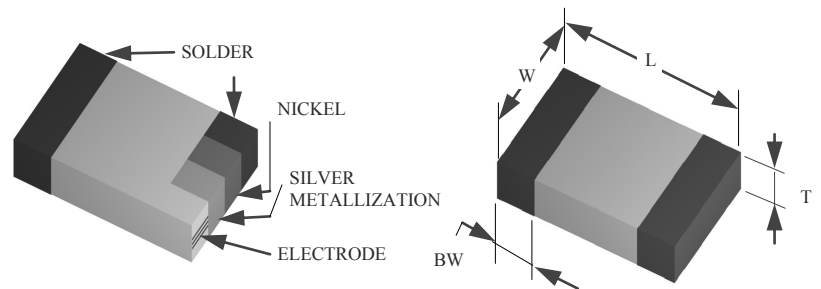
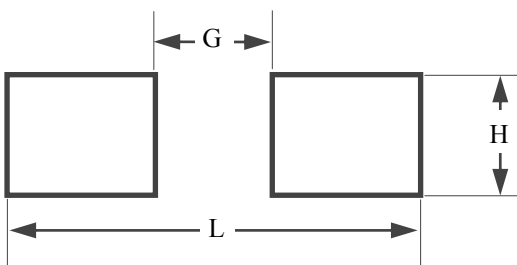
-55°C — +125°C

## Product Identification

MCB 0805 S 121 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 = ±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)
0402/1005	0.039 ± 0.004 (1.00 ± 0.10)	0.020 ± 0.004 (0.50 ± 0.10)	0.020 ± 0.004 (0.50 ± 0.10)	0.010 ± 0.004 (0.25 ± 0.10)
0603/1608	0.063 ± 0.006 (1.60 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.014 ± 0.006 (0.36 ± 0.15)
0805/2012	0.079 ± 0.008 (2.00 ± 0.20)	0.049 ± 0.008 (1.25 ± 0.20)	0.035 ± 0.008 (0.90 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)
1206/3216	0.126 ± 0.008 (3.20 ± 0.20)	0.063 ± 0.008 (1.60 ± 0.20)	0.043 ± 0.008 (1.10 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)

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

## MCB Series (High Speed)

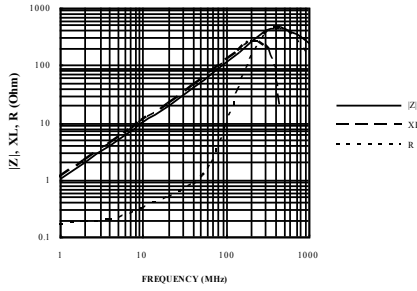
<i>AEM Part Number</i>	<i>Z@100MHz <math>\Omega</math></i>	<i>Tolerance</i>	<i>Max. R<sub>DC</sub> <math>\Omega</math></i>	<i>Max. I A</i>
MCB0402S100	10	P	0.20	0.40
MCB0402S300	30	P	0.20	0.40
MCB0402S600	60	P	0.30	0.35
MCB0402S800	80	P	0.40	0.30
MCB0402S121	120	P	0.40	0.20
MCB0402S221	220	P	0.60	0.20
MCB0402S301	300	P	1.00	0.20
MCB0402S601	600	P	1.20	0.20
MCB0603S100	10	P	0.10	0.60
MCB0603S300	30	P	0.20	0.50
MCB0603S600	60	P	0.25	0.40
MCB0603S800	80	P	0.25	0.40
MCB0603S101	100	P	0.30	0.40
MCB0603S121	120	P	0.30	0.40
MCB0603S221	220	P	0.35	0.30
MCB0603S301	300	P	0.35	0.30
MCB0603S601	600	P	0.50	0.20
MCB0603S102	1000	P	0.60	0.20
MCB0805S110	11	P	0.10	0.80
MCB0805S300	30	P	0.15	0.60
MCB0805S600	60	P	0.15	0.60
MCB0805S121	120	P	0.20	0.50
MCB0805S221	220	P	0.30	0.40
MCB0805S301	300	P	0.30	0.40
MCB0805S601	600	P	0.35	0.30
MCB0805S102	1000	P	0.40	0.20
MCB1206S300	30	P	0.15	0.60
MCB1206S600	60	P	0.15	0.60
MCB1206S800	80	P	0.15	0.60
MCB1206S121	120	P	0.20	0.50
MCB1206S221	220	P	0.30	0.40
MCB1206S301	300	P	0.30	0.40
MCB1206S601	600	P	0.35	0.30
MCB1206S102	1000	P	0.40	0.30

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

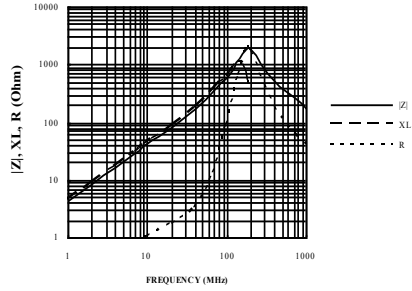
# Electrical Characteristics

(Curves not listed are available upon request)

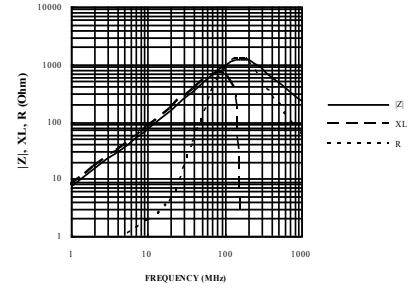
MCB0603S121



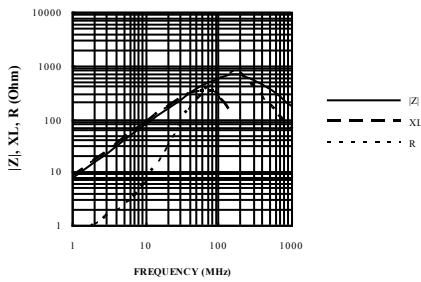
MCB0603S601



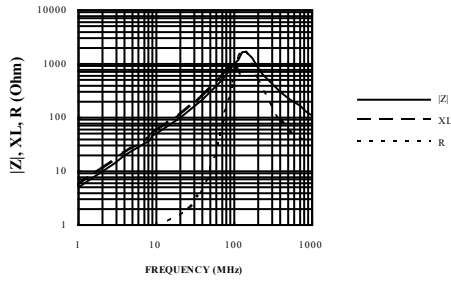
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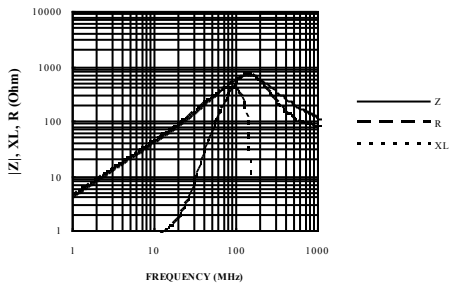
MCB0805S601



MCB0805S102



MCB1206S601



MCB1206S102

