

# Multilayer Ferrite Power Beads



## Features

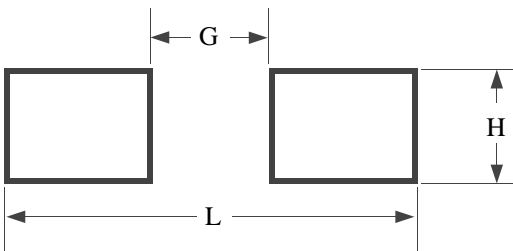
- Monolithic structure for closed magnetic path and high reliability
- Maximum permissible currents up to 4A
- Standard EIA/EIAJ chip sizes such as 0603/1608, 0805/2012, and 1206/3216
- Superior termination bonding strength
- Nickel barrier with solder overplated termination offering excellent solderability and solder leach resistance, suitable for both wave and reflow soldering processes
- RoHS compliant when -T option is specified

## Applications

- Noise suppression in computers and peripherals
- Noise suppression in telecommunications
- Noise suppression in data communications
- 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)
1210(3225)	0.173 (4.40)	0.059 (1.50)	0.106 (2.70)
1806(4516)	0.217 (5.50)	0.110 (2.80)	0.071 (1.80)
1812(4532)	0.217 (5.50)	0.110 (2.80)	0.134 (3.40)



## Operating Temperature

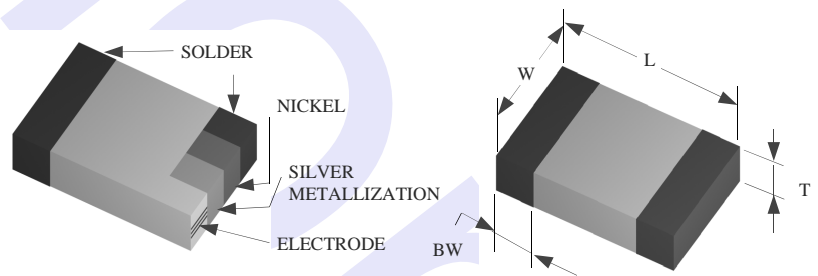
-55°C — +125°C

## Product Identification

MCP 0805 F 600 P I - I  
(1) (2) (3) (4) (5) (6) (7)

- (1) Series code:  
MCP: Multilayer Ferrite Power Bead
- (2) Dimensions: L x W inches  
The first two digits: L (length)  
The last two digits: W (width)
- (3) Characteristic code: F
- (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)
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)
1210/3225	0.126 ± 0.008 (3.20 ± 0.20)	0.098 ± 0.008 (2.50 ± 0.20)	0.051 ± 0.008 (1.30 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)
1806/4516	0.177 ± 0.010 (4.50 ± 0.25)	0.063 ± 0.008 (1.60 ± 0.20)	0.063 ± 0.008 (1.60 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)
1812/4532	0.177 ± 0.010 (4.50 ± 0.25)	0.126 ± 0.008 (3.20 ± 0.20)	0.059 ± 0.008 (1.50 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)

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

## MCP Series (High Current)

<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>
MCP0603F300	30	P	0.030	3.0
MCP0603F400	40	P	0.040	3.0
MCP0603F600	60	P	0.040	3.0
MCP0603F800	80	P	0.040	3.0
MCP0603F121	120	P	0.100	2.0
MCP0603F181	180	P	0.100	2.0
MCP0603F221	220	P	0.100	2.0
MCP0603F301	300	P	0.100	2.0
MCP0603F501	500	P	0.150	1.5
MCP0603F601	600	P	0.200	1.0
MCP0805F300	30	P	0.015	4.0
MCP0805F500	50	P	0.040	3.0
MCP0805F600	60	P	0.040	3.0
MCP0805F800	80	P	0.040	3.0
MCP0805F121	120	P	0.040	3.0
MCP0805F151	150	P	0.050	3.0
MCP0805F221	220	P	0.050	3.0
MCP0805F301	300	P	0.100	2.0
MCP0805F601	600	P	0.100	2.0
MCP0805F102	1000	P	0.150	1.0
MCP1206F190	19	P	0.020	4.0
MCP1206F300	30	P	0.020	4.0
MCP1206F500	50	P	0.020	4.0
MCP1206F800	80	P	0.040	3.0
MCP1206F101	100	P	0.060	2.5
MCP1206F121	120	P	0.060	2.5

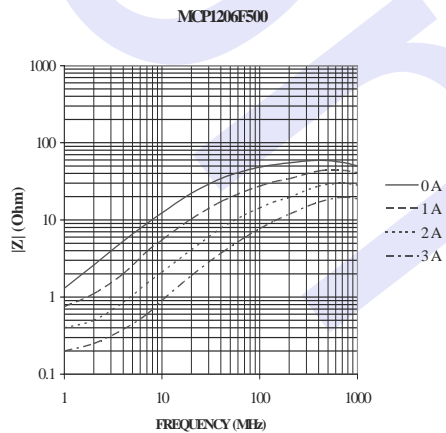
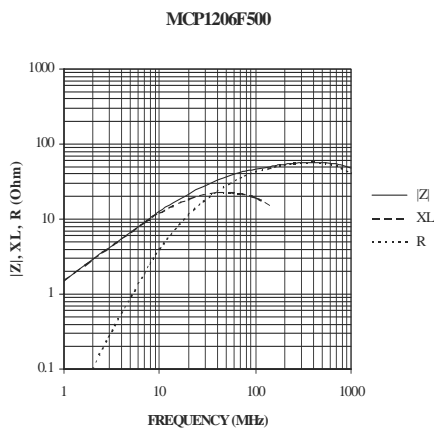
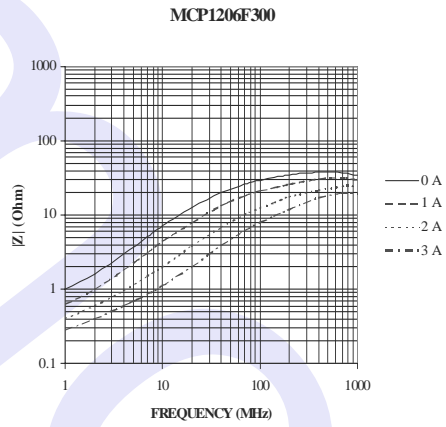
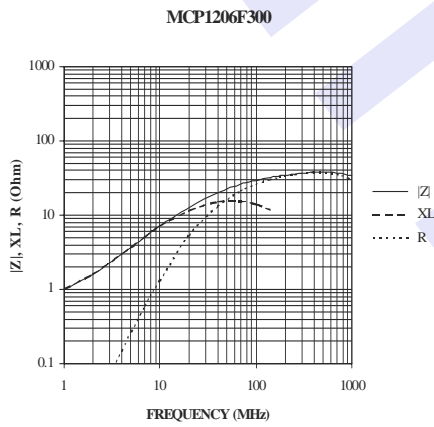
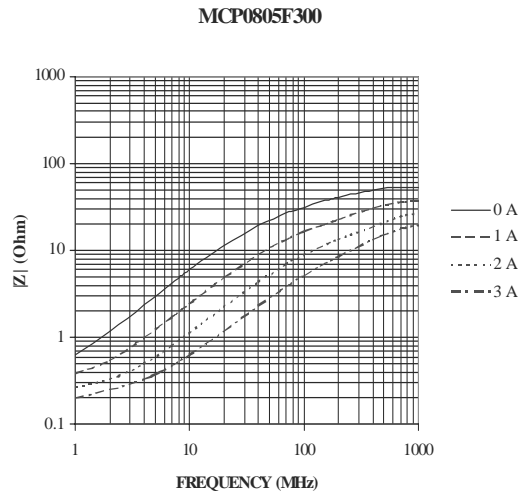
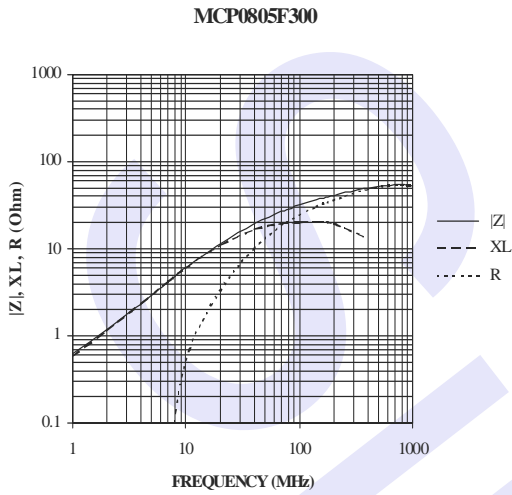
## MCP Series (High Current)

<i>AEM Part Number</i>	<i>Z@100MHz Ω</i>	<i>Tolerance</i>	<i>Max. R<sub>DC</sub> Ω</i>	<i>Max. I A</i>
MCP1206F221	220	P	0.080	2.0
MCP1206F301	300	P	0.080	2.0
MCP1206F601	600	P	0.100	2.0
MCP1210F600	60	P	0.030	4.0
MCP1806F600	60	P	0.030	4.0
MCP1806F900	90	P	0.030	4.0
MCP1812F700	70	P	0.030	4.0
MCP1812F121	120	P	0.030	4.0

Definition of rated current: When the rated current is applied to a power bead, its temperature rise shall not exceed 20°C.  
Please add tolerance, packaging and termination type codes when ordering.

## Electrical Characteristics

(Curves not listed are available upon request)



Electrical Characteristics

(Curves not listed are available upon request)

