

Surface Mount High Current EMI Filters Ferrite Power Beads



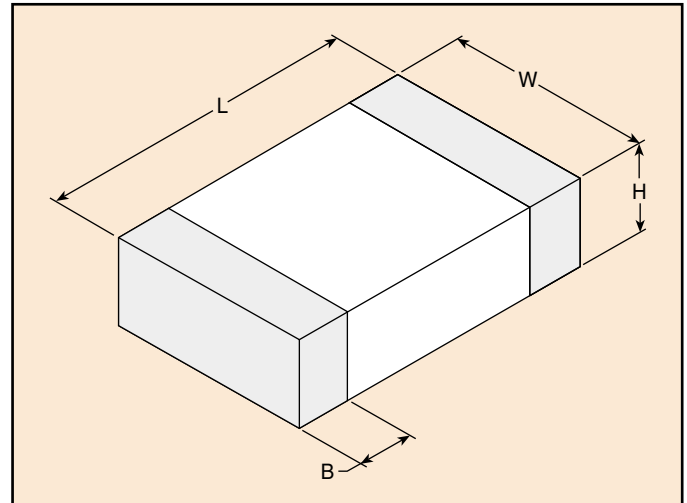
Ferrite Power Beads

Features

- Rated up to 6 Amps
- Broad range of impedance values available (Standard line has values of 7 Ω to 600 Ω)
- Available in standard EIA/EIAJ chip sizes (0603/1608, 0805/2012, 1206/3216, etc.)
- Excellent solderability is achieved from a nickel barrier with a solder overplate
- Provides EMI attenuation without grounding
- Closed magnetic circuit
- Parts are suitable for flow or re-flow soldering
- Available in tape and reel for easy placement
- Operational temperature range of -55°C to +125°C

Applications

- Telecommunications equipment (cellular phones, cordless phones, faxes and ISDN's)
- Digital audio/visual equipment (TV, HDTV, VTR, DVD, CATV tuners and etc.)
- GPS and car navigation equipment
- High speed clocks
- Consumer electronics
- Signal lines
- LAN and WAN hardware



Part Numbering System

Example: **FPB-0805-A301P7**

FPB	-	0805	-	A	301	P	7
Series Ferrite Power Beads		Part Size EIA Size (Length x Width)		Material Characteristic Determined by the desired electrical characteristic	Impedance Value 30(1) (1) = the # of zeros that will follow the first two digits Example: 30(1) = 30 followed by 1 zero = 300 Ohms	Tolerance Code Standard Value is P P = $\pm 25\%$ M = $\pm 20\%$	Packaging 7 = 7 inch reel 3 = 13 inch reel B = Bulk

Land Patterns and Soldering Temperature Profiles

- See page 33.

Packaging Specifications and Storage Requirements

- See page 34.

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Physical Characteristics

Size		Physical Dimensions			
EIA	EIAJ	Length (L)	Width (W)	Height (H)	Termination Band (B)
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 ± 0.010 (0.51 ± 0.25)
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 ± 0.010 (0.51 ± 0.25)
1806	4516	0.177 ± 0.010 (4.50 ± 0.25)	0.063 ± 0.008 (1.60 ± 0.20)	0.055 ± 0.010 (1.40 ± 0.25)	0.020 ± 0.010 (0.51 ± 0.25)
1812	4532	0.177 ± 0.010 (4.50 ± 0.25)	0.126 ± 0.010 (3.20 ± 0.25)	0.055 ± 0.010 (1.40 ± 0.25)	0.020 ± 0.010 (0.51 ± 0.25)

Dimensions in inches (mm)

Electrical Characteristics

Standard FPB-0603 and FPB-0805 Sizes

Part Number	Impedance Ω at 100 MHz	Max. DCR Ω	Max. Current mA
FPB-0603-A300P*	30	0.06	1,000
FPB-0603-A600P*	60	0.10	500
FPB-0805-A070P*	7	0.02	3,000
FPB-0805-A100P*	10		
FPB-0805-A110P*	11		
FPB-0805-A150P*	15	0.025	3,000
FPB-0805-A300P*	30		
FPB-0805-A400P*	40	0.03	2,000
FPB-0805-A450P*	45		
FPB-0805-A800P*	80	0.10	1,000
FPB-0805-A201P*	200	0.15	1,000
FPB-0805-A301P*	300		
FPB-0805-A601P*	600	0.20	1,000

Notes: * Please add packaging code at the end of part.
To change Tolerance Code, replace P with other tolerance values.
Consult factory for other impedance values of the 0603 and 0805 footprint that are available from Spectrum Control.

Standard FPB-1206 Sizes

Part Number	Impedance Ω at 100 MHz	Max. DCR Ω	Max. Current mA
FPB-1206-A190P*	19		
FPB-1206-A260P*	26	0.02	3,000
FPB-1206-A300P*	30		
FPB-1206-A310P*	31		
FPB-1206-A500P*	50	0.025	3,000
FPB-1206-A700P*	70	0.03	2,000
FPB-1206-A800P*	80		
FPB-1206-A900P*	90	0.10	1,000
FPB-1206-A121P*	120		
FPB-1206-A601P*	600	0.20	1,000
FPB-1206-E101P*	100	0.03	3,000
FPB-1206-E121P*	120	0.04	
FPB-1206-E601P*	600	0.10	1,500

Notes: * Please add packaging code at the end of part.
To change Tolerance Code, replace P with other tolerance values.
Consult factory for other impedance values of the 1206 footprint that are available from Spectrum Control.

Standard FPB-1806 and FPB-1812 Sizes

Part Number	Impedance Ω at 100 MHz	Max. DCR Ω	Max. Current mA
FPB-1806-B600P*	60	0.01	6,000
FPB-1806-B750P*	75	0.03	4,000
FPB-1806-B800P*	80	0.03	4,000
FPB-1806-B151P*	150	0.07	2,000
FPB-1812-B700P*	70	0.03	6,000
FPB-1812-B121P*	120	0.05	3,000

Notes: * Please add packaging code at the end of part.
To change Tolerance Code, replace P with other tolerance values.
Consult factory for other impedance values of the 1806 and 1812 footprint that are available from Spectrum Control.



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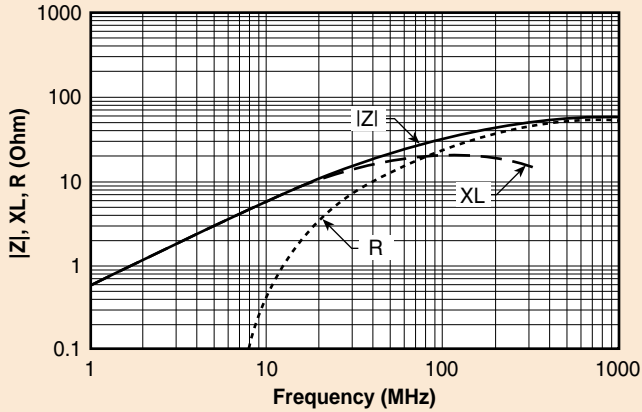
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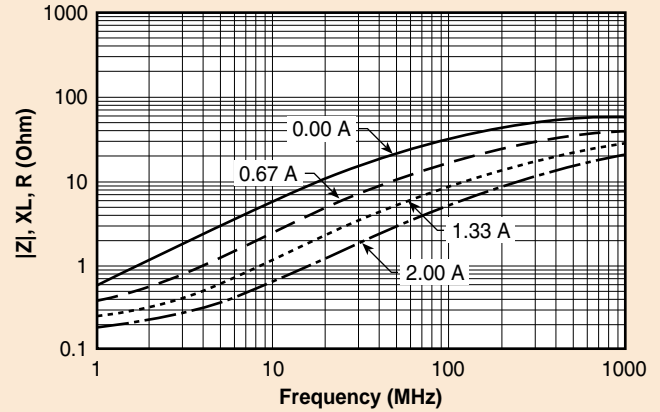
Typical Impedance Characteristics (Curves not listed are available upon request or at our website.)

0805 Size

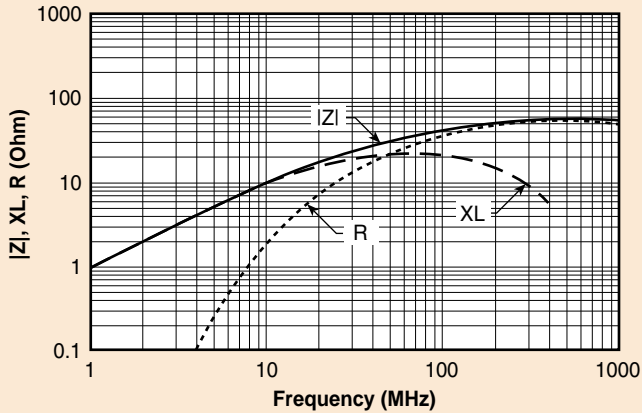
FPB-0805-A300



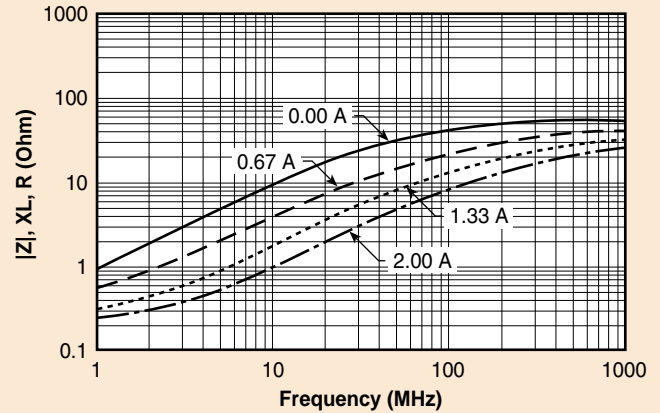
FPB-0805-A300



FPB-0805-A450



FPB-0805-A450



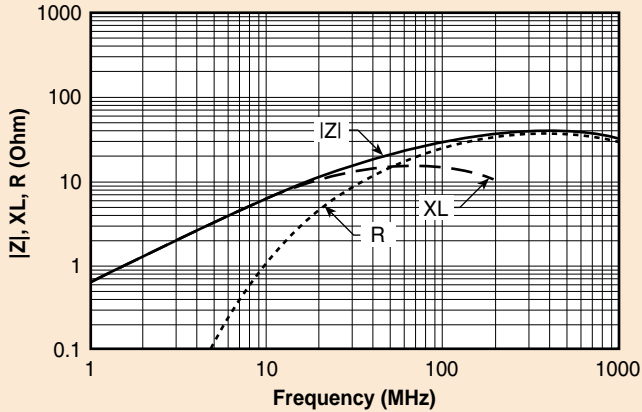
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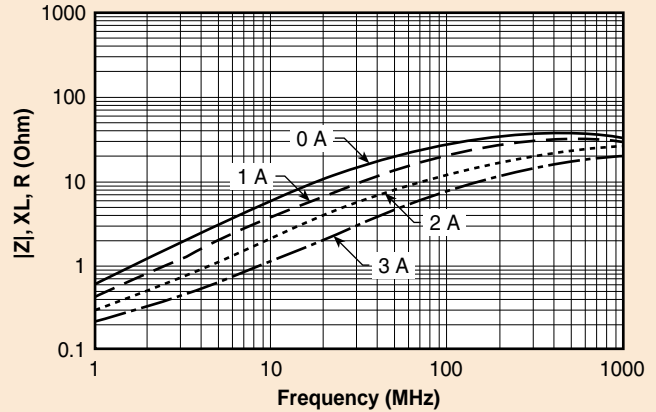


1206 Size

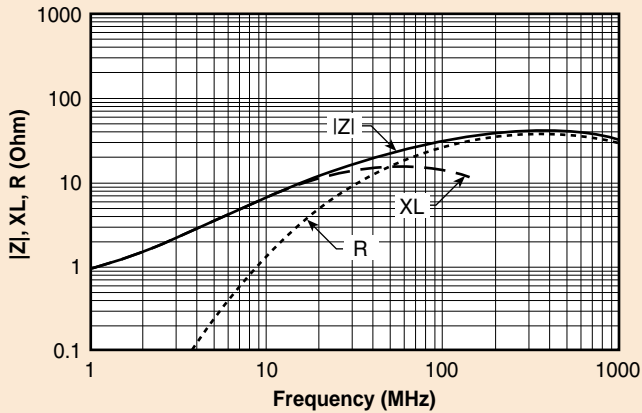
FPB-1206-A260



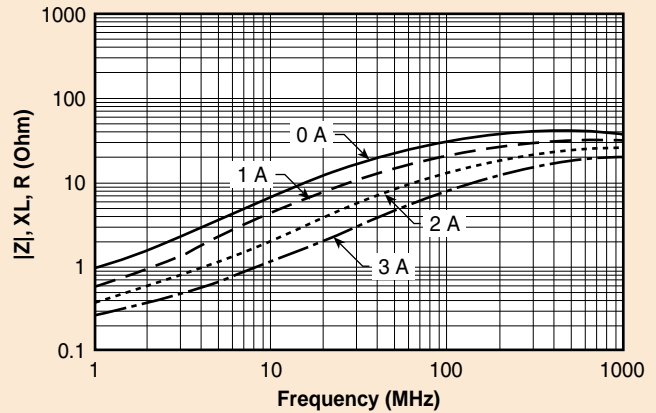
FPB-1206-A260



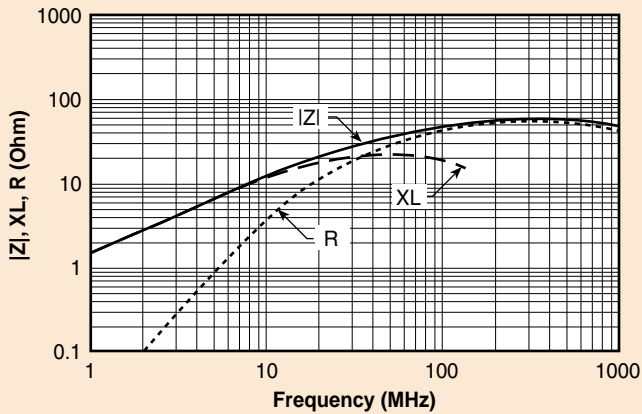
FPB-1206-A300



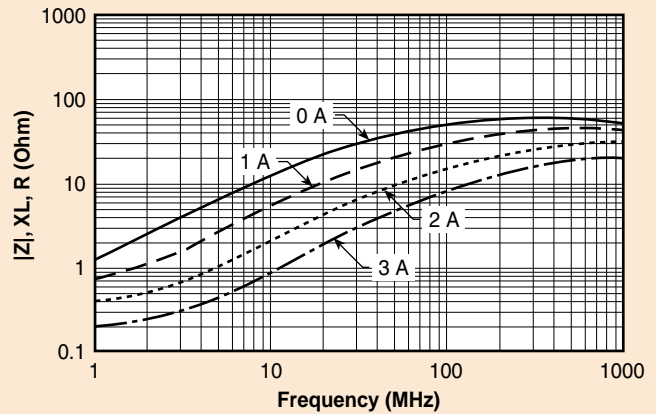
FPB-1206-A300



FPB-1206-A500



FPB-1206-A500



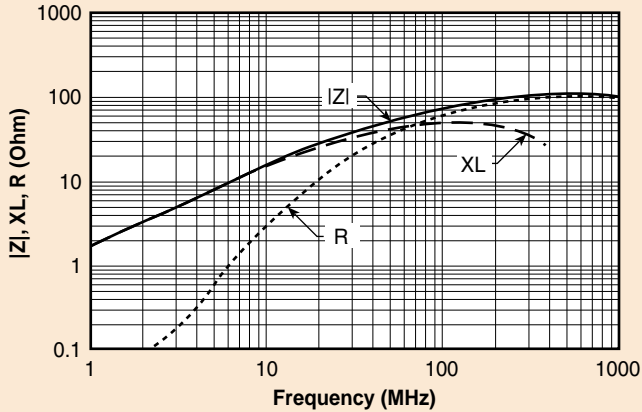
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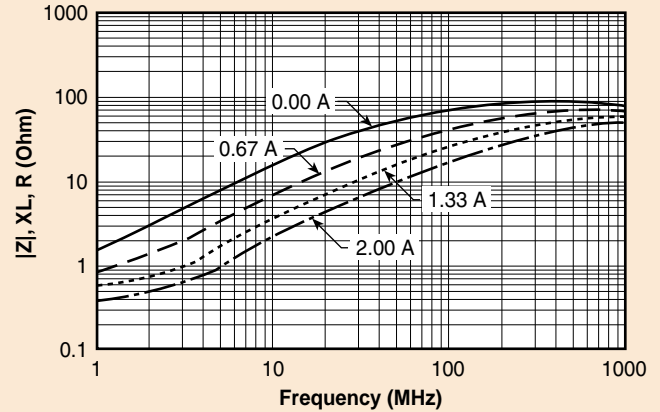
Typical Impedance Characteristics (Curves not listed are available upon request or at our website.)

1206 Size *continued*

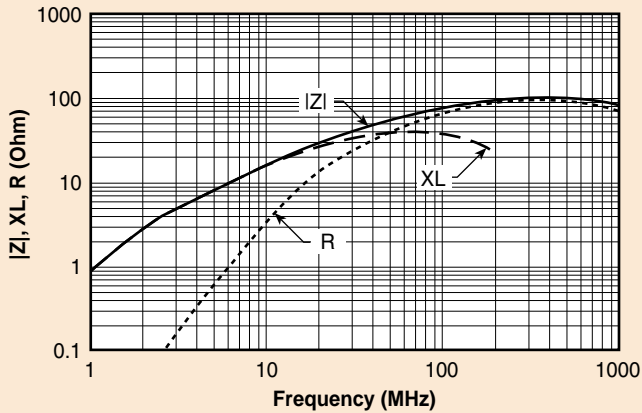
FPB-1206-A700



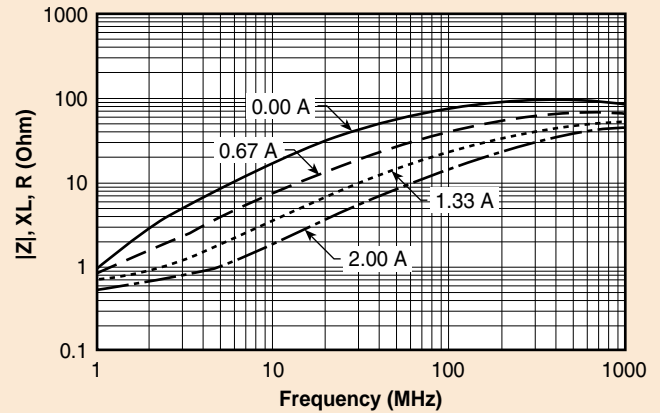
FPB-1206-A700



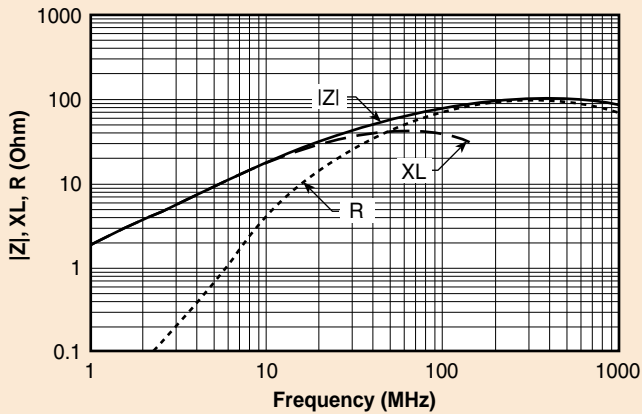
FPB-1206-A800



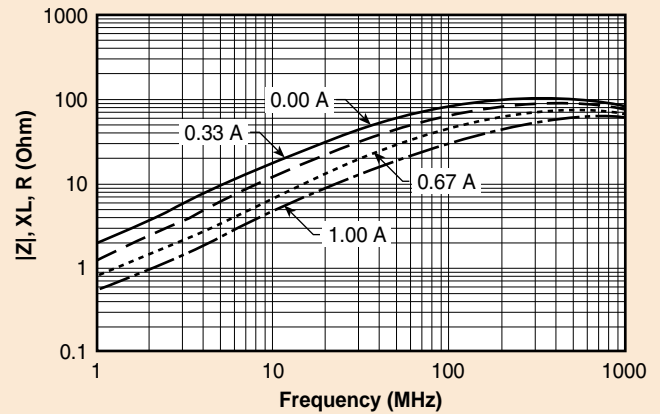
FPB-1206-A800



FPB-1206-A900



FPB-1206-A900



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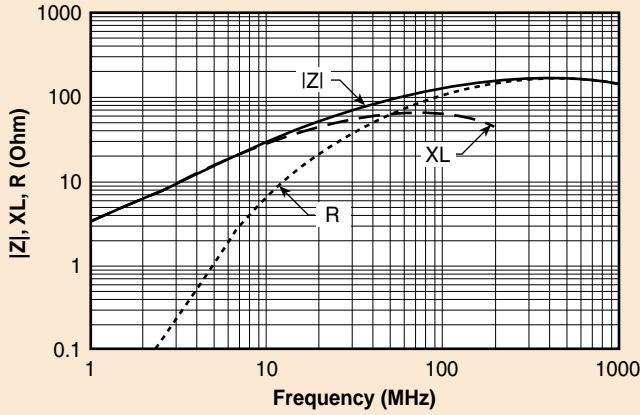
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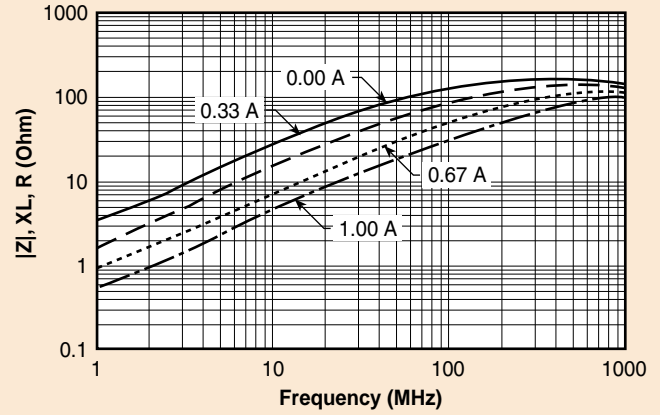


1206 Size *continued*

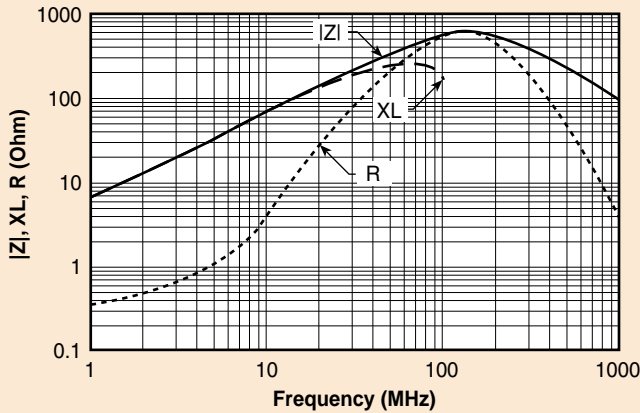
FPB-1206-A121



FPB-1206-A121



FPB-1206-A601



FPB-1206-A601

