

# Multilayer Ferrite Chip Beads



## Features

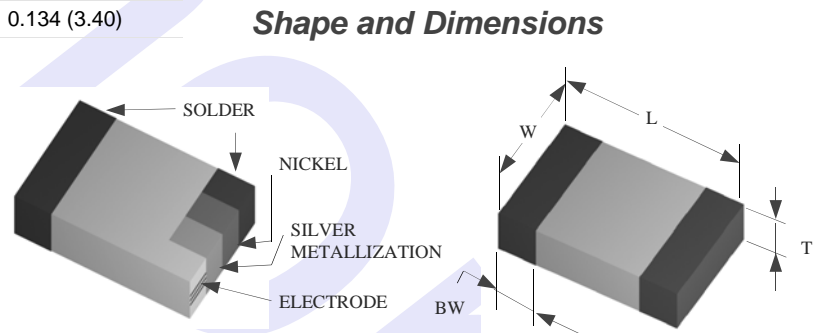
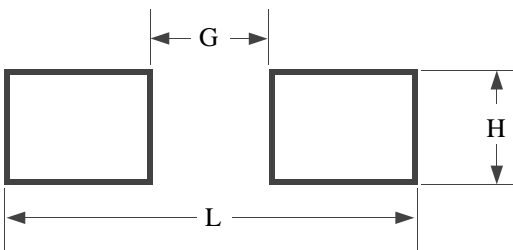
- Monolithic structure for closed magnetic path and high reliability
- Standard EIA/EIAJ chip sizes such as 0402/1005, 0603/1608, 0805/2012, and 1206/3216
- A complete set of ferrite and electrode materials providing a wide range of electrical properties
- Superior termination bonding strength
- Nickel 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

- Noise suppression in computers and peripherals
- Noise suppression in telecommunications
- Noise suppression in data communications

## 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)
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

MCB 0805 G 101 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: F, G
- (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)
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.

## MCB Series (General Use)

<b>AEM Part Number</b>	<b>Z@100MHz <math>\Omega</math></b>	<b>Tolerance</b>	<b>Max. <math>R_{DC}</math> <math>\Omega</math></b>	<b>Max. I A</b>
MCB0402G100	10	P	0.05	0.60
MCB0402G400	40	P	0.30	0.40
MCB0402G700	70	P	0.40	0.35
MCB0402G800	80	P	0.40	0.35
MCB0402G121	120	P	0.50	0.30
MCB0402G221	220	P	0.70	0.20
MCB0402G301	300	P	0.80	0.20
MCB0402G451	450	P	0.80	0.20
MCB0402G601	600	P	1.00	0.15
MCB0402G102	1000	P	1.50	0.10
MCB0603G190	19	P	0.10	0.60
MCB0603G300	30	P	0.10	0.60
MCB0603G400	40	P	0.10	0.60
MCB0603G600	60	P	0.10	0.60
MCB0603G800	80	P	0.15	0.60
MCB0603G900	90	P	0.20	0.50
MCB0603G101	100	P	0.25	0.40
MCB0603G121	120	P	0.25	0.40
MCB0603G181	180	P	0.30	0.40
MCB0603G221	220	P	0.30	0.40
MCB0603G301	300	P	0.40	0.30
MCB0603G451	450	P	0.50	0.30
MCB0603G601	600	P	0.50	0.30
MCB0603G102	1000	P	0.70	0.25
MCB0603G152	1500	P	1.00	0.15
MCB0805F110	11	P	0.10	0.80
MCB0805F170	17	P	0.10	0.80
MCB0805F300	30	P	0.10	0.80
MCB0805F400	40	P	0.10	0.80
MCB0805F500	50	P	0.10	0.80
MCB0805F600	60	P	0.10	0.80
MCB0805F800	80	P	0.15	0.60
MCB0805G101	100	P	0.15	0.60
MCB0805G121	120	P	0.15	0.60
MCB0805G151	150	P	0.25	0.50
MCB0805G221	220	P	0.30	0.40
MCB0805G301	300	P	0.30	0.40
MCB0805G401	400	P	0.30	0.40
MCB0805G601	600	P	0.30	0.40
MCB0805G102	1000	P	0.40	0.30
MCB0805G152	1500	P	0.55	0.20

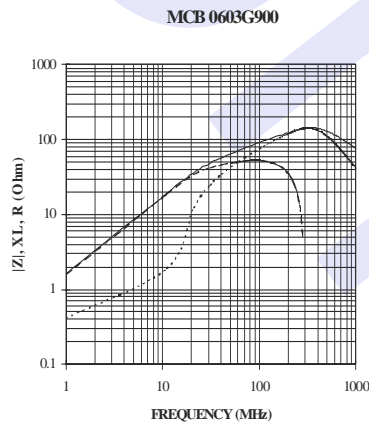
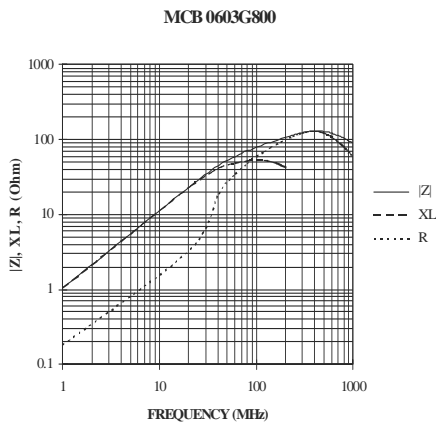
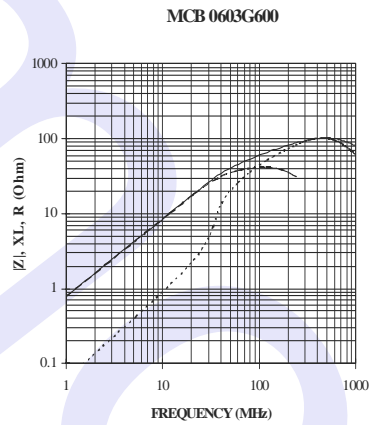
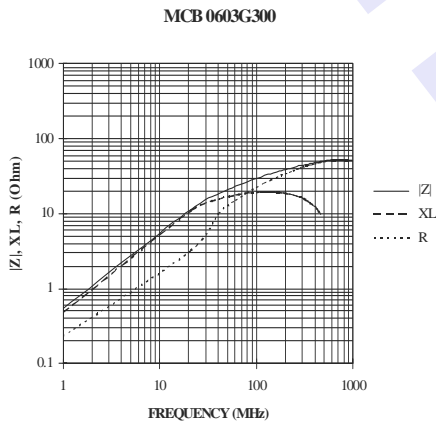
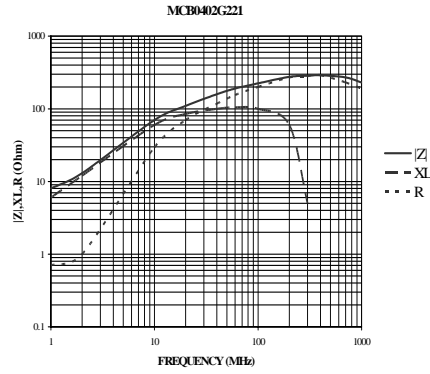
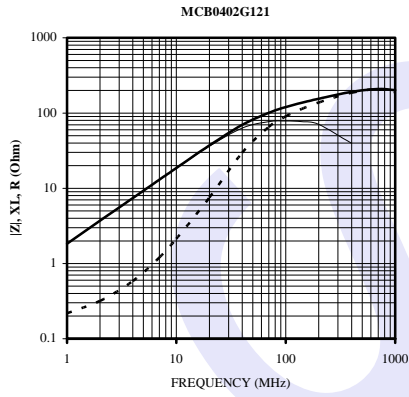
## MCB Series (General Use)

<b>AEM Part Number</b>	<b>Z@100MHz <math>\Omega</math></b>	<b>Tolerance</b>	<b>Max. <math>R_{DC}</math> <math>\Omega</math></b>	<b>Max. I A</b>
MCB1206F190	19	P	0.05	0.80
MCB1206F300	30	P	0.05	0.80
MCB1206F500	50	P	0.10	0.60
MCB1206F600	60	P	0.10	0.60
MCB1206F700	70	P	0.10	0.60
MCB1206F900	90	P	0.15	0.60
MCB1206F101	100	P	0.15	0.60
MCB1206F121	120	P	0.15	0.60
MCB1206F151	150	P	0.15	0.60
MCB1206F201	200	P	0.20	0.50
MCB1206F301	300	P	0.20	0.50
MCB1206F401	400	P	0.20	0.50
MCB1206F601	600	P	0.30	0.40
MCB1206G102	1000	P	0.40	0.30
MCB1206G152	1500@50MHz	P	0.40	0.30
MCB1210G600	60	P	0.10	0.80
MCB1806F600	60	P	0.10	0.80
MCB1806F101	100	P	0.20	0.50
MCB1812F700	70	P	0.20	0.50
MCB1812F121	120	P	0.20	0.50

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

## Electrical Characteristics

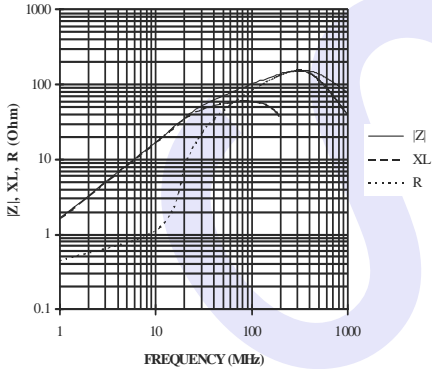
(Curves not listed are available upon request)



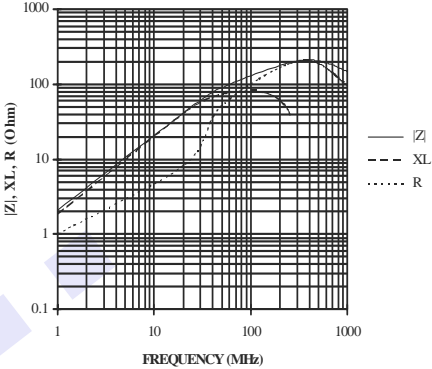
### Electrical Characteristics

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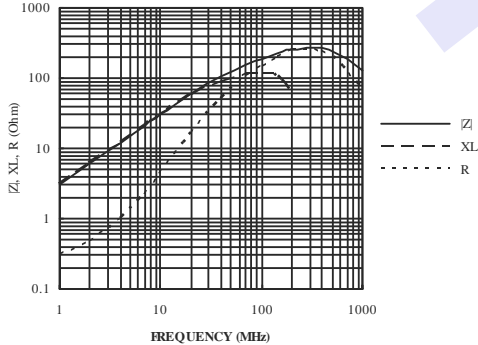
MCB 0603G101



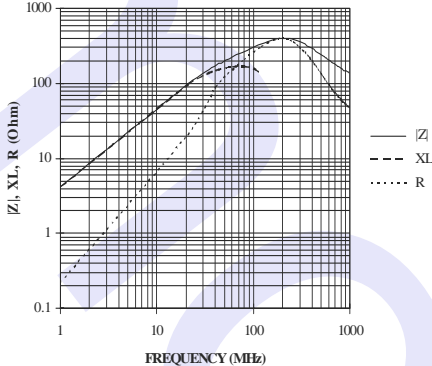
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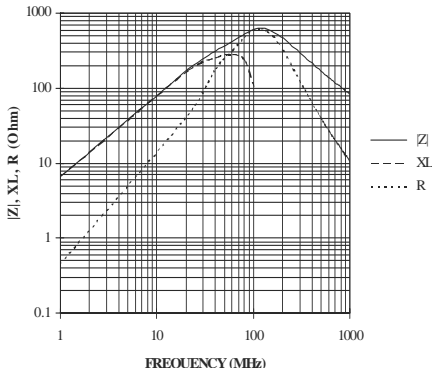
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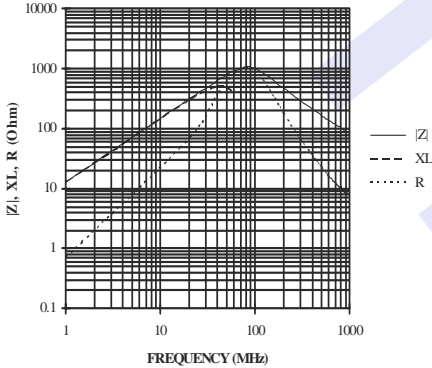
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MCB 0603G601



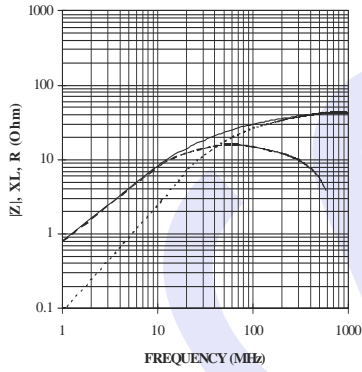
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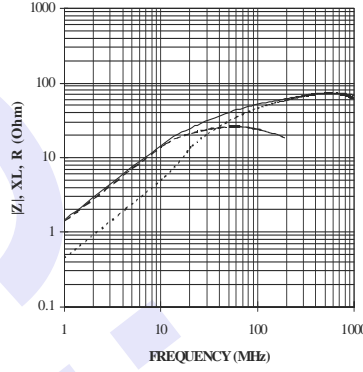
Electrical Characteristics

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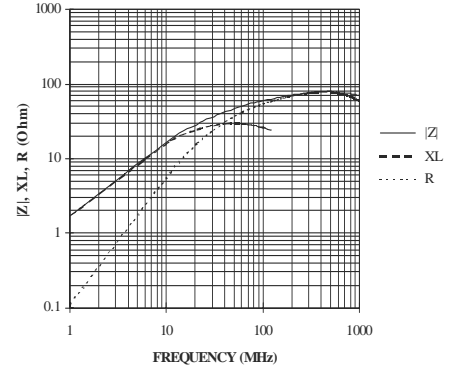
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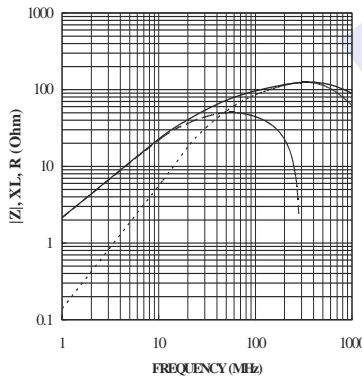
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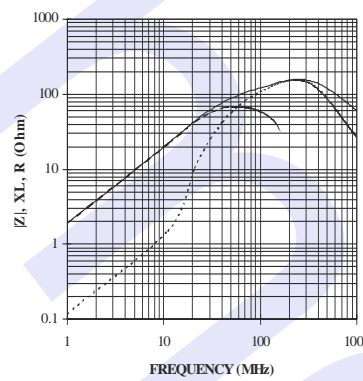
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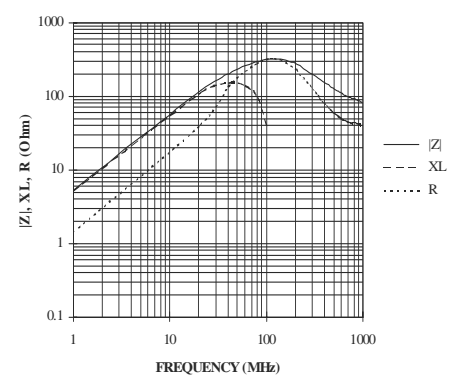
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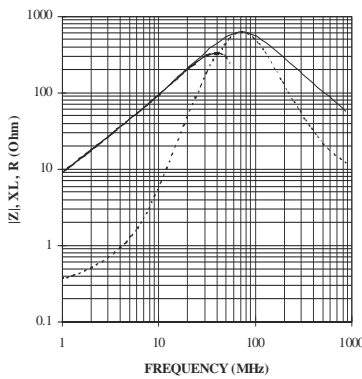
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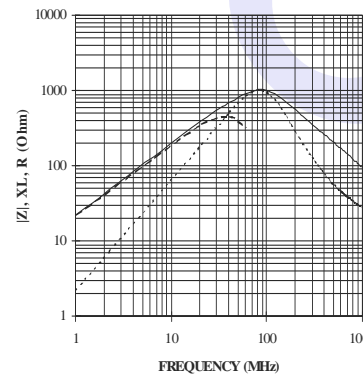
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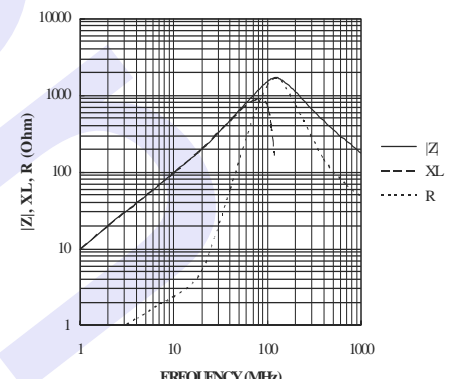
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MCB 0805G102



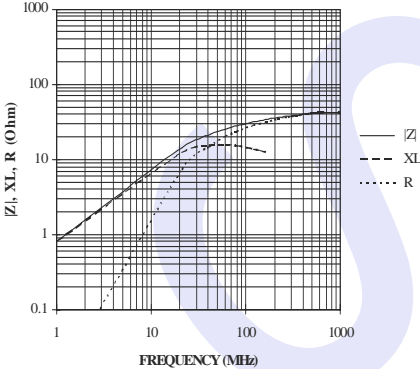
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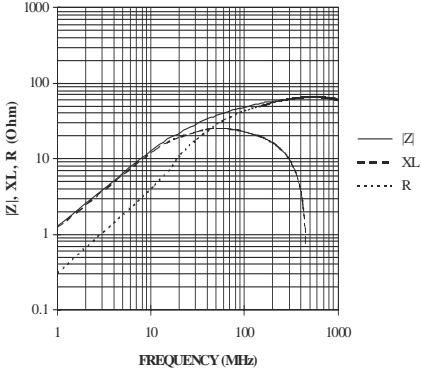
### Electrical Characteristics

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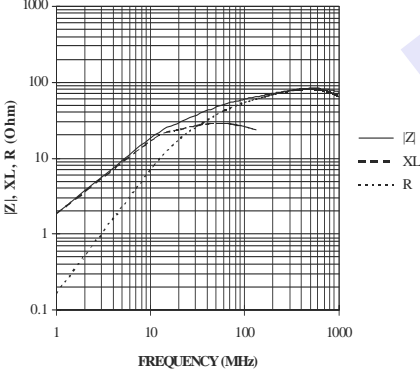
MCB 1206F300



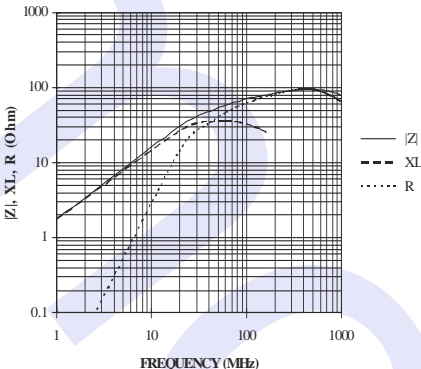
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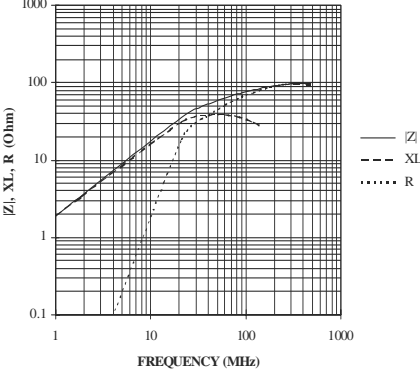
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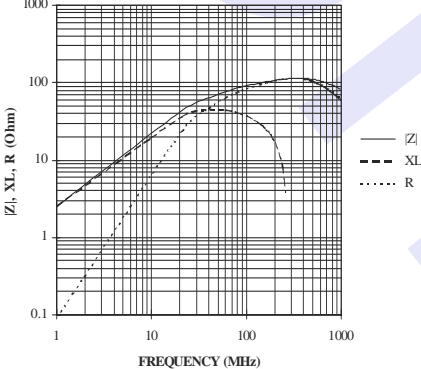
MCB 1206F700



MCB 1206F800



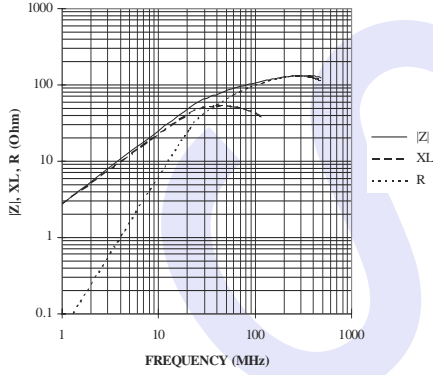
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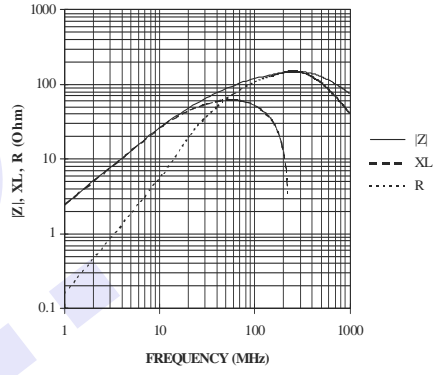
## Electrical Characteristics

(Curves not listed are available upon request)

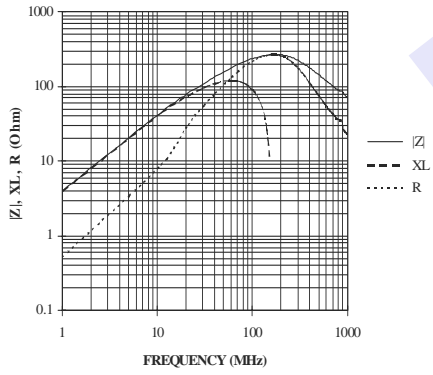
MCB 1206F101



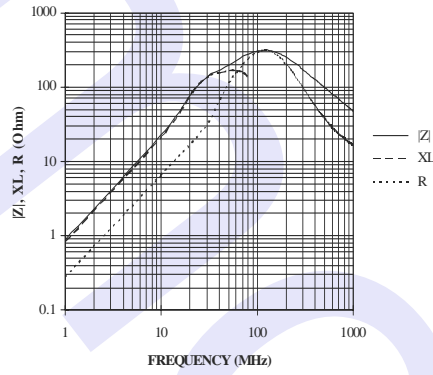
MCB 1206F121



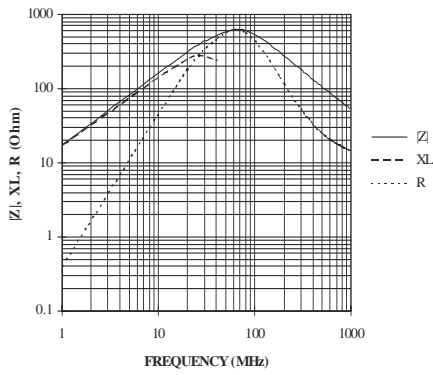
MCB 1206F201



MCB 1206F301



MCB 1206F601



MCB 1206G102

