

### ■ FEATURES

#### Effective EMI Protection

A-Series chip beads have a monolithic inorganic material construction that minimizes the effect of electromagnetic interference.

#### Wide Frequency Characteristics

A-series chip beads can generate impedances over a wide range of frequencies.

#### High Soldering Heat Resistance

A-series chip beads have high quality termination that allows the applications of both flow and reflow soldering methods.

#### Multiple Size Availability

A- series chip beads are available in eight compact sizes: 100505, 160808, 201209, 321611, 321616, 322513, 451616, and 453215.

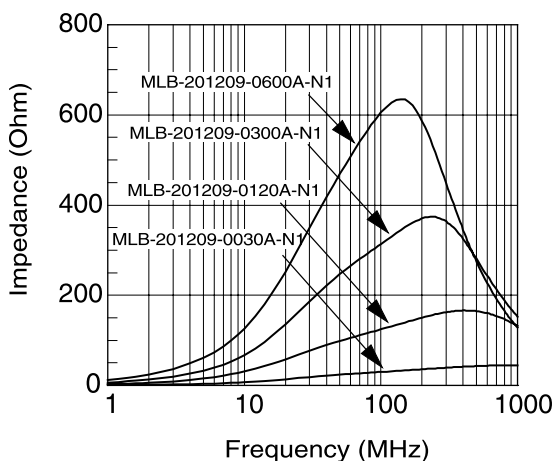
### ■ APPLICATIONS

A-series chip beads can be used in a variety of electronics including:

- Computers
- Motherboards
- Printers
- Modems
- Hard Drives
- CD-ROMs
- Audio Equipment
- Digital Televisions.

### ■ TYPICAL ELECTRICAL CHARACTERISTIC CURVES

Typical electrical characteristic curves for MLB A-series chip beads. The A-series covers a wide frequency range and has wide impedance characteristics.



## ■ PRODUCT SPECIFICATION

### 100505(0402)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-100505-0030A-N2	30 ± 25%	0.20	400	-55~+125
MLB-100505-0060A-N2	60 ± 25%	0.20	300	
MLB-100505-0120A-N2	120 ± 25%	0.30	300	
MLB-100505-0240A-N2	240 ± 25%	0.40	200	
MLB-100505-0300A-N2	300 ± 25%	0.50	200	
MLB-100505-0470A-N2	470 ± 25%	0.60	200	
MLB-100505-0600A-N2	600 ± 25%	0.80	200	
MLB-100505-1000A-N2	1000 ± 25%	1.0	150	

### 160808(0603)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-160808-0030A-N2	30 ± 25%	0.20	400	-55~+125
MLB-160808-0040A-N2	40 ± 25%		300	
MLB-160808-0060A-N2	60 ± 25%		250	
MLB-160808-0080A-N2	80 ± 25%	0.40	200	
MLB-160808-0100A-N2	100 ± 25%		150	
MLB-160808-0120A-N2	120 ± 25%		100	
MLB-160808-0180A-N2	180 ± 25%	0.50	200	
MLB-160808-0220A-N2	220 ± 25%		150	
MLB-160808-0240A-N2	240 ± 25%		100	
MLB-160808-0300A-N2	300 ± 25%	0.70	150	
MLB-160808-0450A-N2	450 ± 25%		100	
MLB-160808-0600A-N1	600 ± 25%		100	
MLB-160808-0600A-N2	1000 ± 25%	1.0	200	
MLB-160808-1000A-N1			100	
MLB-160808-1000A-N2			100	
MLB-160808-1200A-N2	1500 ± 25%	1.0	200	
MLB-160808-1500A-N2			100	
MLB-160808-2000A-N5			100	
MLB-160808-2500A-N5	2500 ± 25%	1.2	100	

### 201209(0805)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-201209-0010A-N1	10 ± 25%	0.10	600	-55~+125
MLB-201209-0017A-N2	17 ± 25%		500	
MLB-201209-0030A-N1	30 ± 25%		400	
MLB-201209-0080A-N4	80 ± 25%		300	
MLB-201209-0120A-N1	120 ± 25%	0.30	300	
MLB-201209-0120A-N2				
MLB-201209-0120A-N4				
MLB-201209-0150A-N1	150 ± 25%	0.50	250	
MLB-201209-0220A-N4	220 ± 25%			
MLB-201209-0300A-N1	300 ± 25%			
MLB-201209-0400A-N2	400 ± 25%	0.60	200	
MLB-201209-0600A-N1	600 ± 25%			
MLB-201209-0600A-N2				
MLB-201209-0600A-N4	1000 ± 25%	0.80	100	
MLB-201209-1000A-N4	1200 ± 25%			
MLB-201209-1200A-N4	1500 ± 25%			
MLB-201209-1500A-N4	2000 ± 25%	1.00	100	
MLB-201209-2000A-N4	2200 ± 25%			
MLB-201209-2200A-N4	2700 ± 25%			
MLB-201209-2700A-N4		1.50		

### 321611(1206)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz *50MHz **30MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-321611-0026A-N1	26 ± 25%	0.20	600	-55~+125
MLB-321611-0031A-N2	31 ± 25%		500	
MLB-321611-0050A-N2	50 ± 25%		400	
MLB-321611-0070A-N2	70 ± 25%		300	
MLB-321611-0090A-N2	90 ± 25%	0.30	500	
MLB-321611-0120A-N4	120 ± 25%			
MLB-321611-0150A-N4	150 ± 25%			
MLB-321611-0220A-N4	220 ± 25%	0.40	400	
MLB-321611-0400A-N4	400 ± 25%			
MLB-321611-0500A-N1	500 ± 25%			

## 321611(1206)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz *50MHz **30MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-321611-0600A-N1	600 ± 25%	0.50	250	-55~+125
MLB-321611-0600A-N2				
MLB-321611-1200A-N2	*1200 ± 25%	0.70	200	
MLB-321611-1500A-N2	*1500 ± 25%	1.00		
MLB-321611-2000A-N1	**2000 ± 25%	1.50	150	
MLB-321611-2000A-N2				

## 321616(1206)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-321616-0050A-N2	50 ± 25%	0.30	300	55~+125
MLB-321616-0070A-N1	70 ± 25%			

## 322513(1210)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-322513-0052A-N1	52 ± 25%	0.30	300	-55~+125
MLB-322513-0060A-N2	60 ± 25%			

## 451616(1806)SIZES

Part Number	Impedance ( $\Omega$ ) at 100 MHz	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	Operating Temp. Range(°C)
MLB-451616-0052A-N1	52 ± 25%	0.30	300	-55~+125
MLB-451616-0060A-N2	60 ± 25%			
MLB-451616-0080A-N1	80 ± 25%			
MLB-451616-0125A-N2	125 ± 25%	0.50		
MLB-451616-0150A-N2	150 ± 25%			

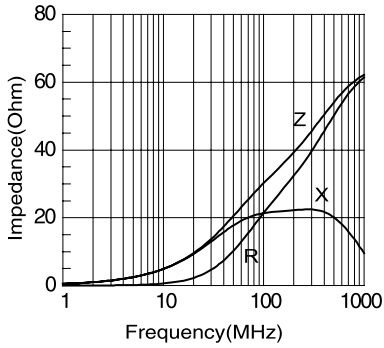
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MLB-453215-0120A-N1	120 ± 25%	0.50	300	-55~+125
MLB-453215-0125A-N2	125 ± 25%			

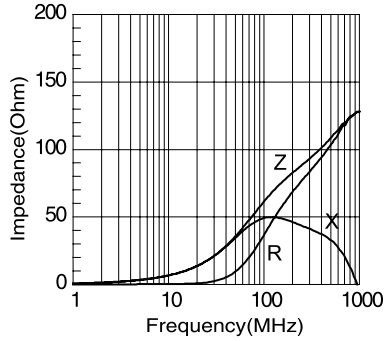
**TYPICAL ELECTRICAL CHARACTERISTIC CURVES**

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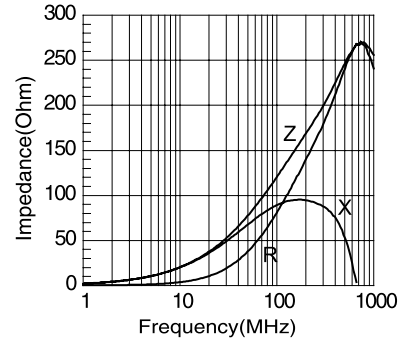
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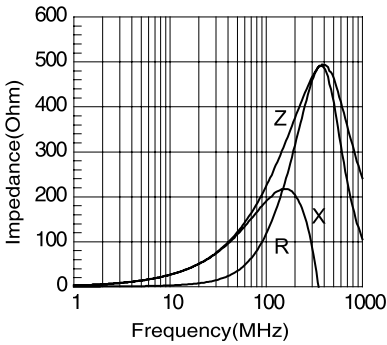
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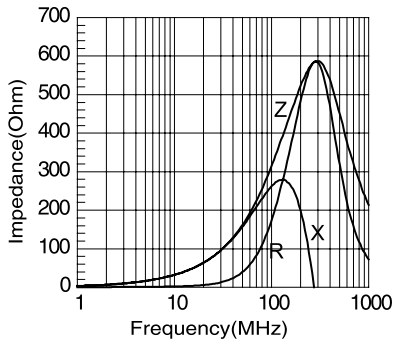
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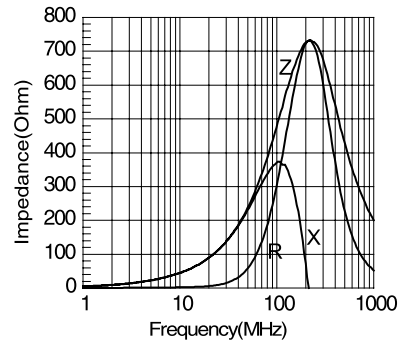
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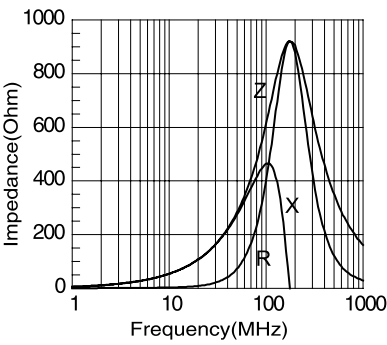
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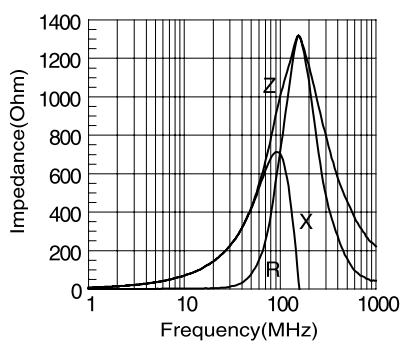
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**MLB-100505-0600A-N2**



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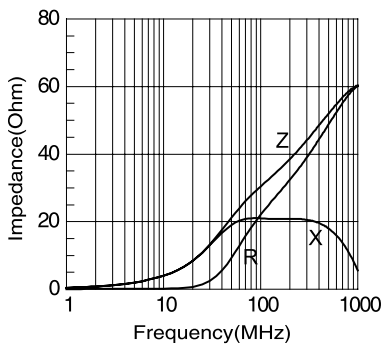


MULTILAYER CHIP BEADS

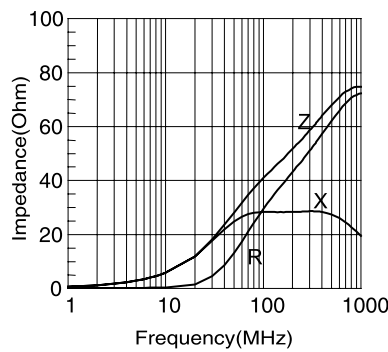
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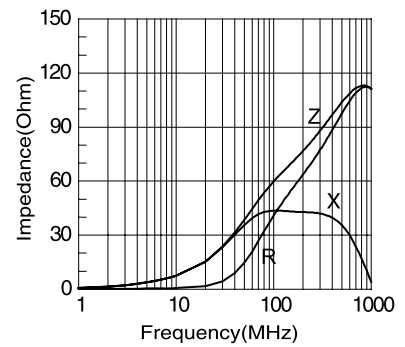
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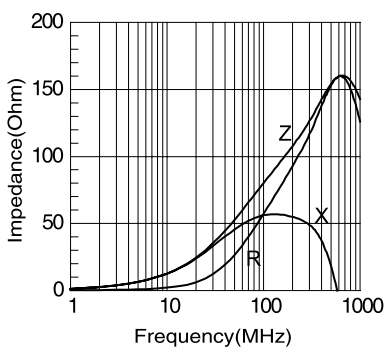
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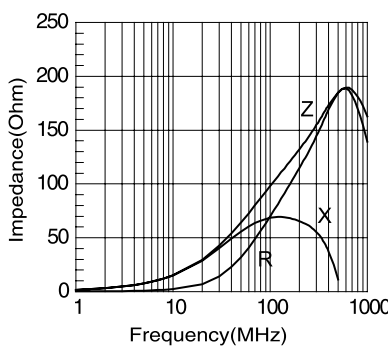
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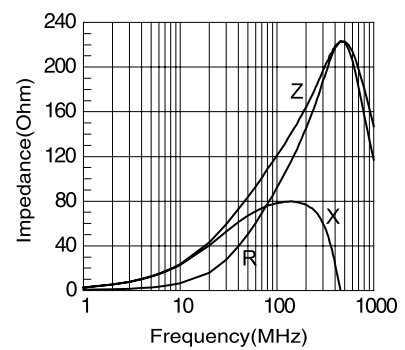
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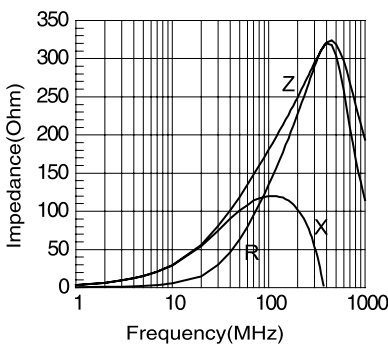
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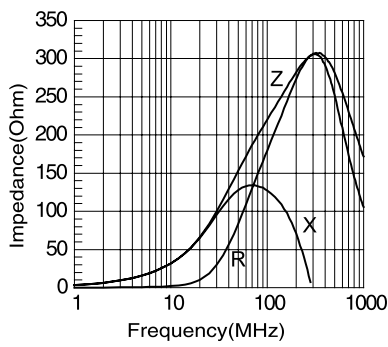
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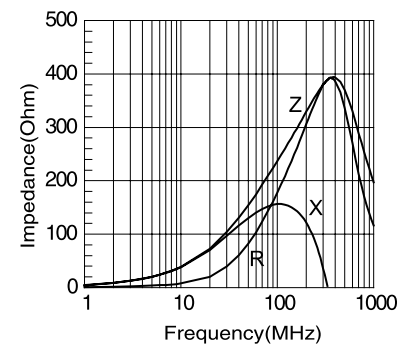
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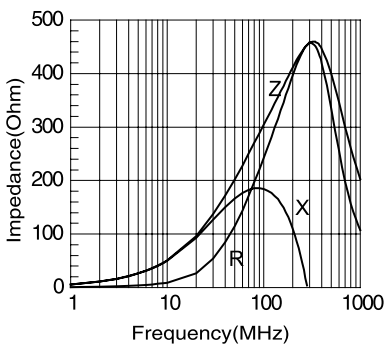
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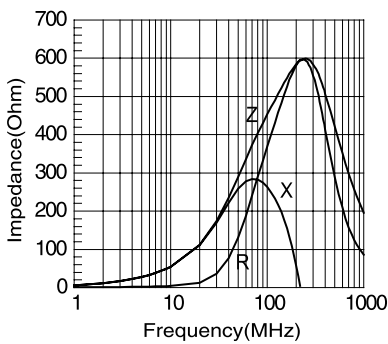
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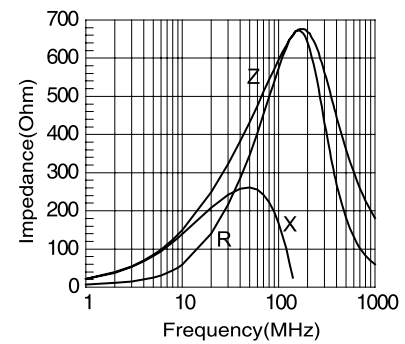
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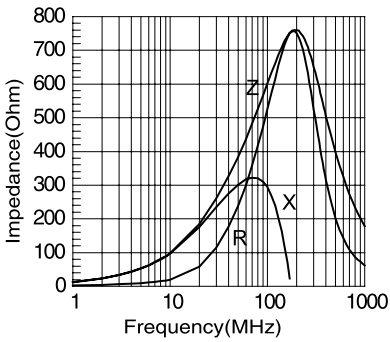


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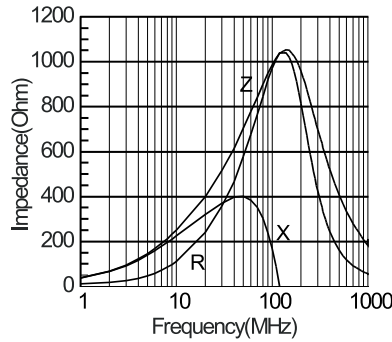


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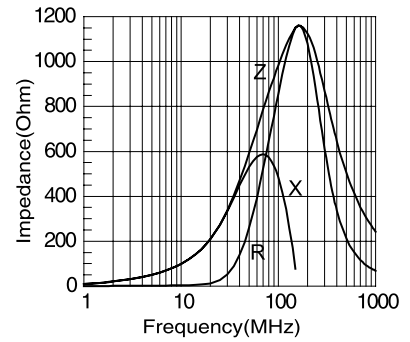
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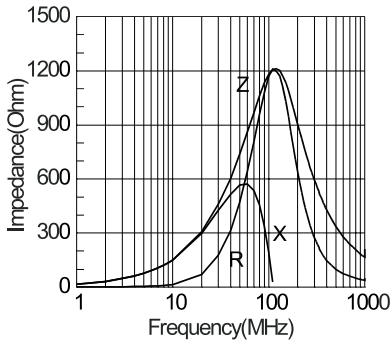
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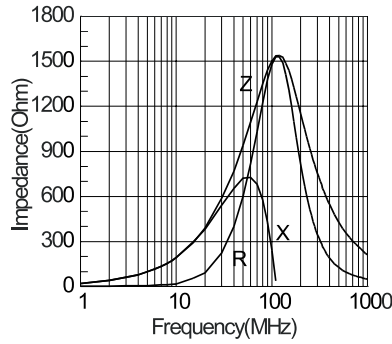
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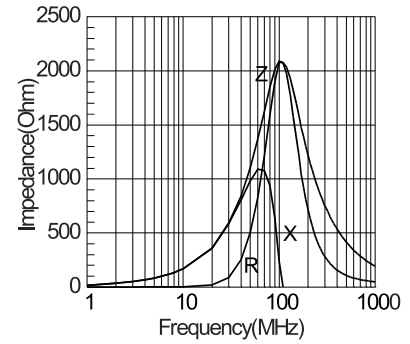
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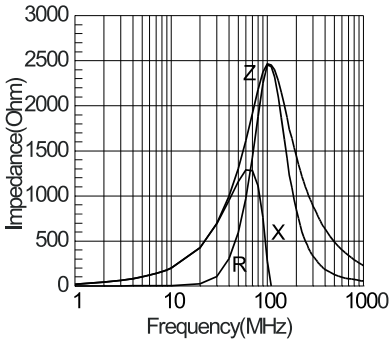
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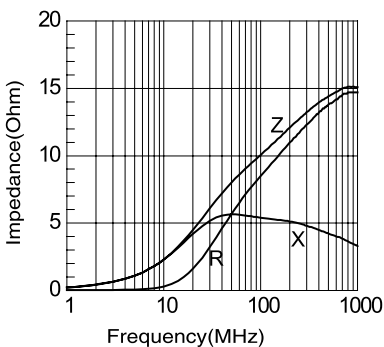


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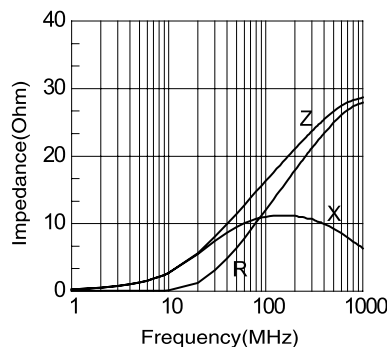


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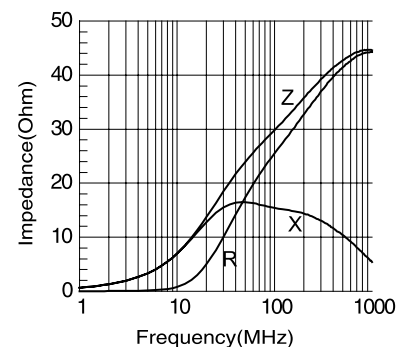
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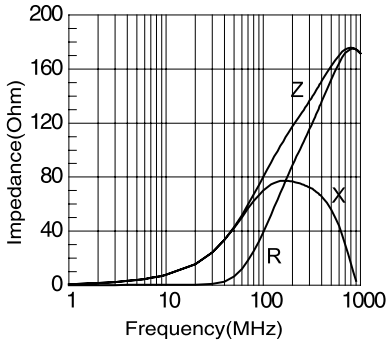
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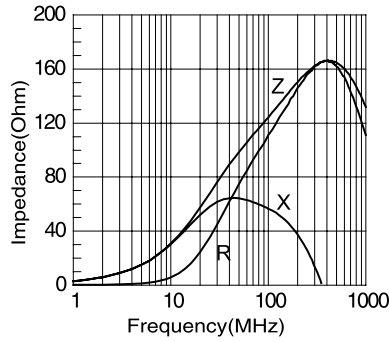
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MULTILAYER CHIP BEADS

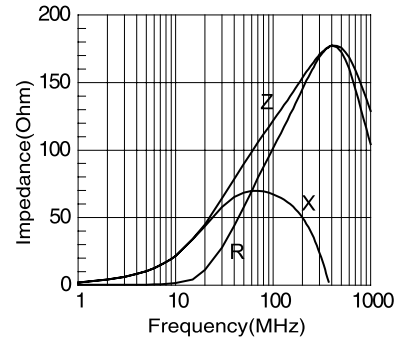
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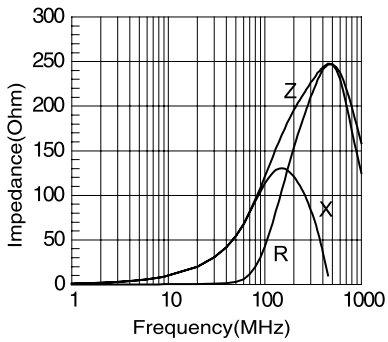
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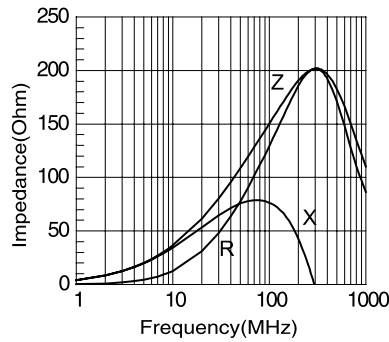
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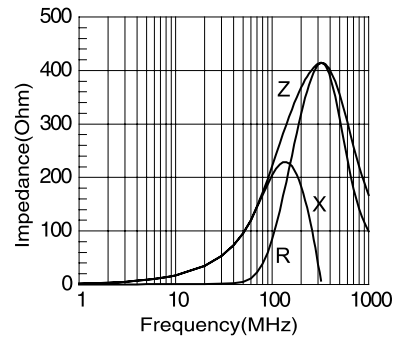
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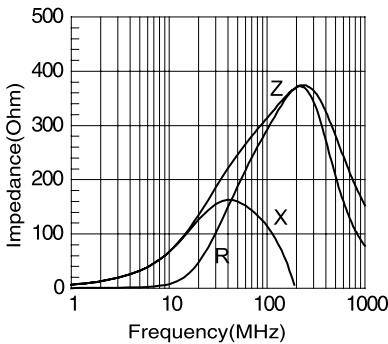
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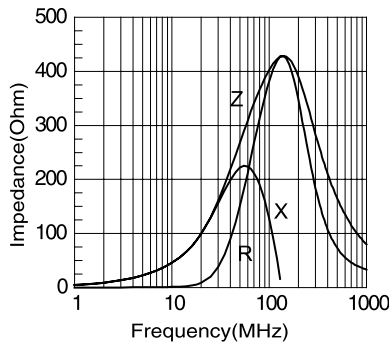
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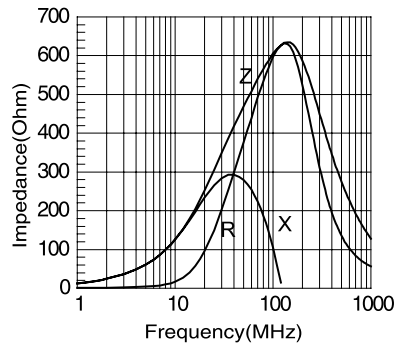
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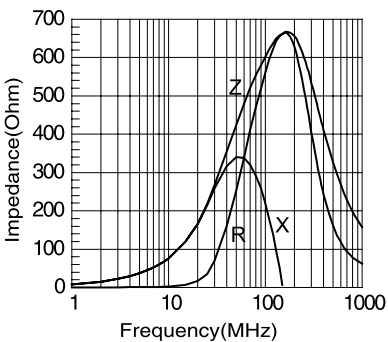
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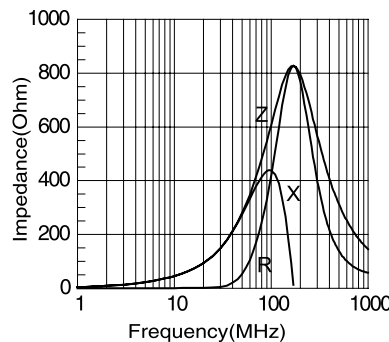
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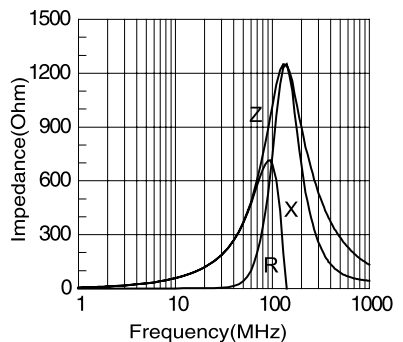
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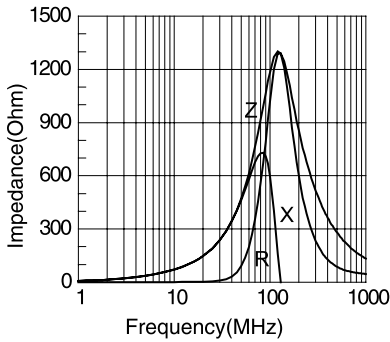
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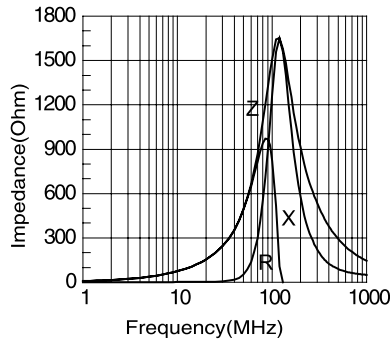


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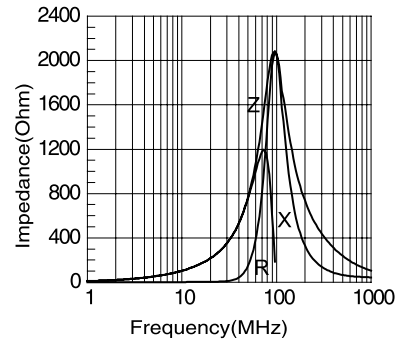
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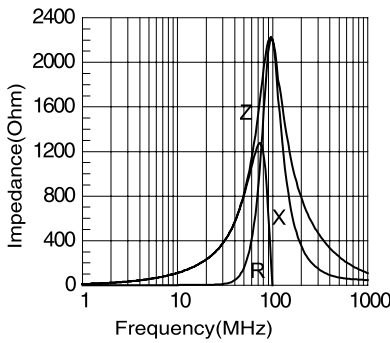
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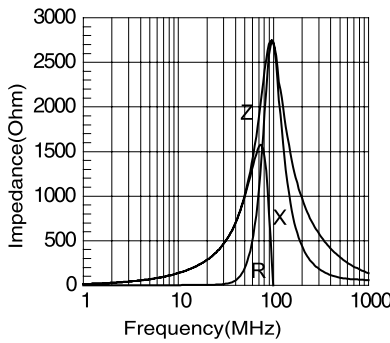
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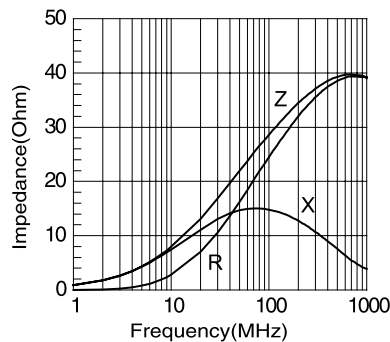


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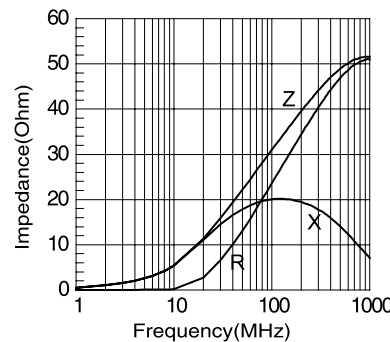


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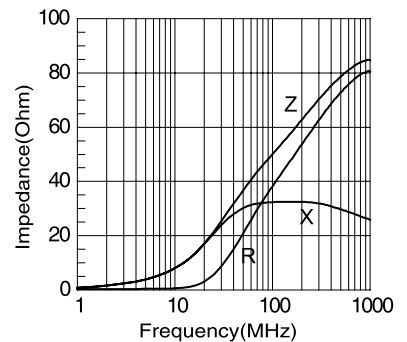
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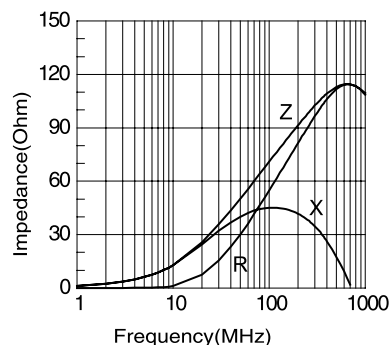
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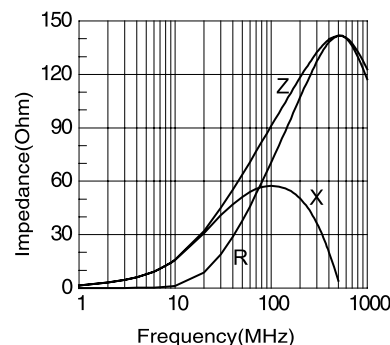
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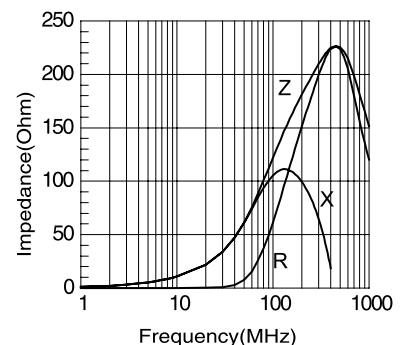
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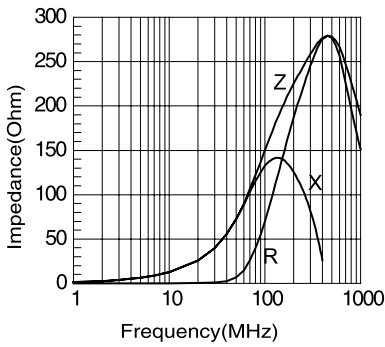
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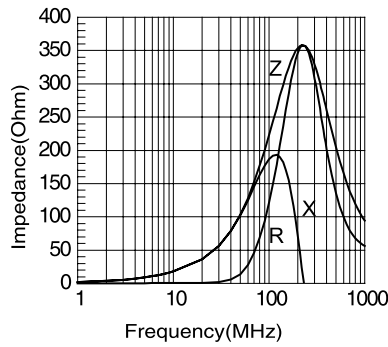
MULTILAYER CHIP BEADS

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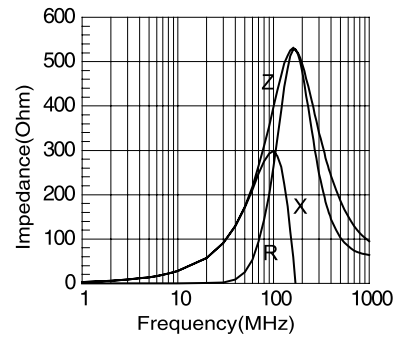
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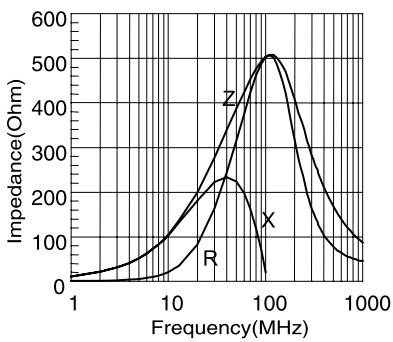
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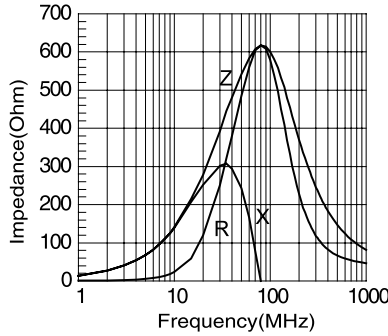
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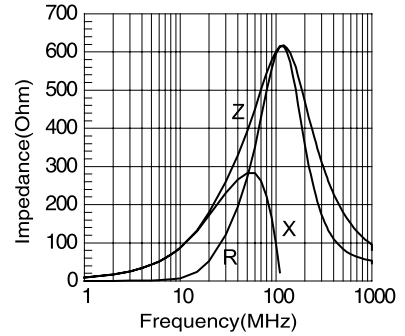
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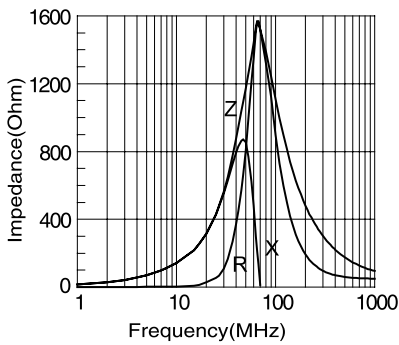
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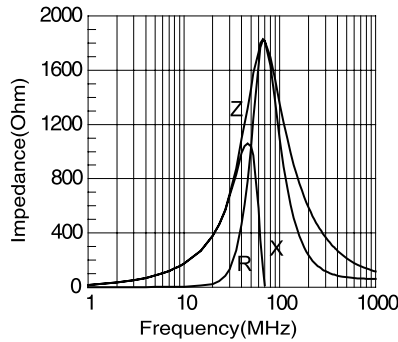
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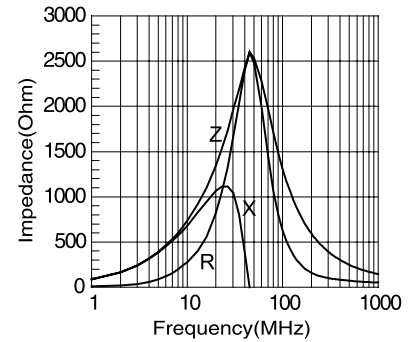
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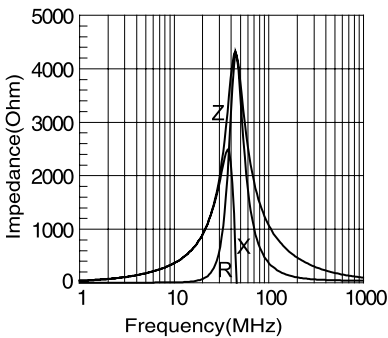
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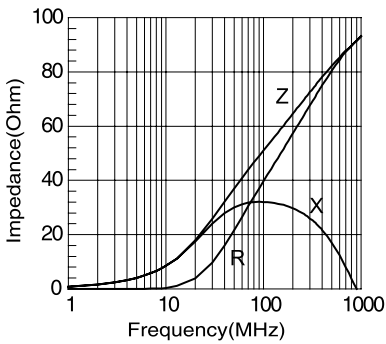
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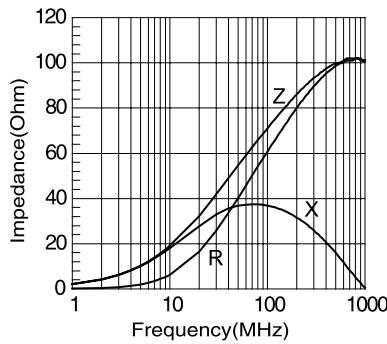
MULTILAYER CHIP BEADS

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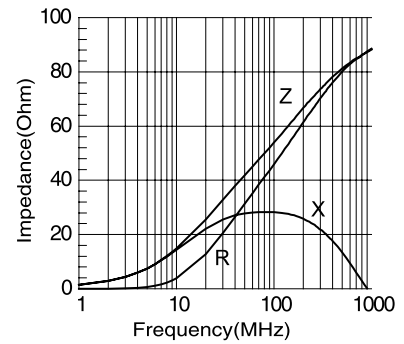
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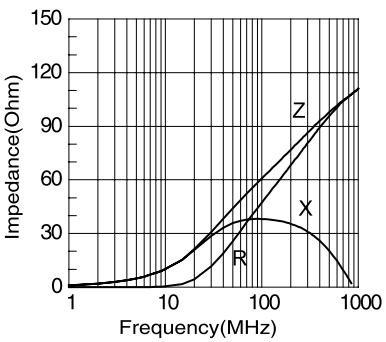
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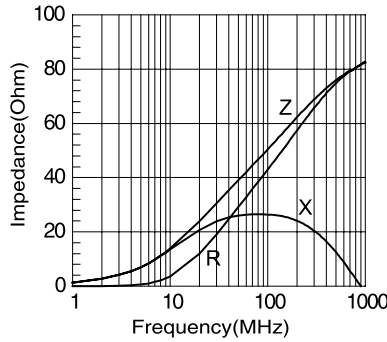
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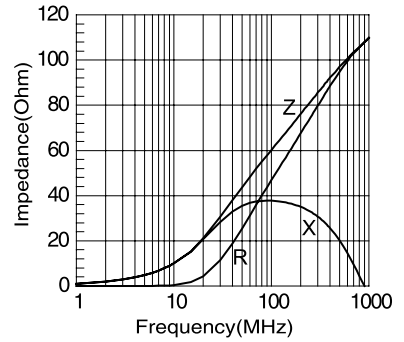
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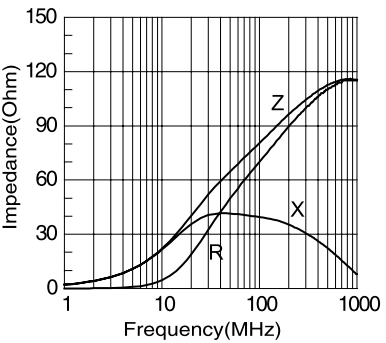
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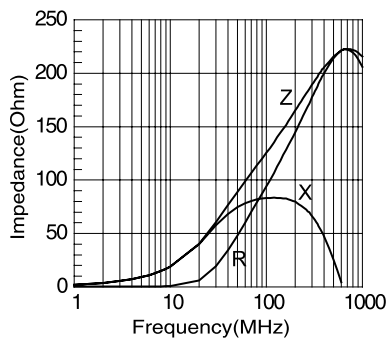
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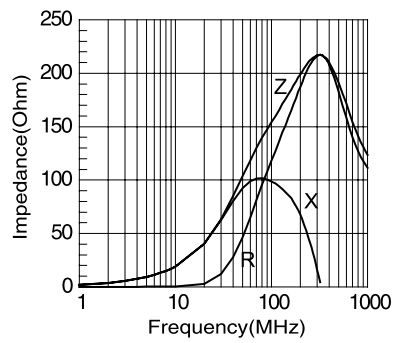
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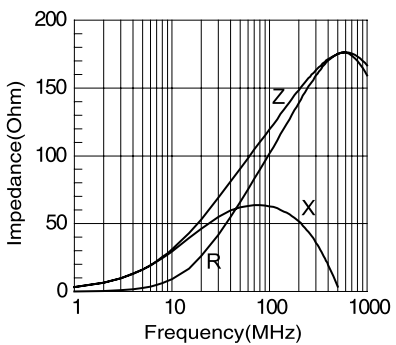
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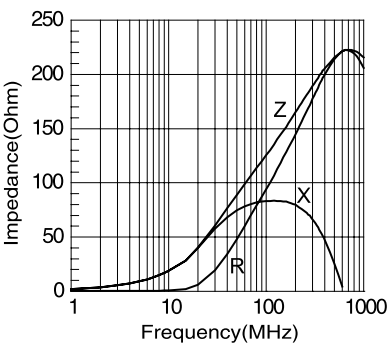
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**MLB-453215-0120A-N1**



**MLB-453215-0125A-N2**



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