

# EMC Components

## Ferrite Beads

### SMD

## MMZ Series MMZ1608 Type

Size: JIS/IEC 1608, EIA 0603

### FEATURES

- Chip bead(impeder), MMZ series offers 5 construction materials.
- Size standardized for use by automatic assembly equipment. No preferred orientation.
- Either flow or reflow soldering methods can be used due to electroplating of the terminal electrodes.
- High reliability due to an entirely monolithic structure.
- Closed magnetic circuit structure allows high-density installation while preventing crosstalk between circuits.
- Low DC resistance structure of electrode prevents wasteful electric power consumption.
- The products contain no lead and also support lead-free soldering.

### APPLICATIONS

PCs, CRTs, liquid crystal display panels, printers, hard disk drives, game machines, cellular phones, etc.

### PRODUCT IDENTIFICATION

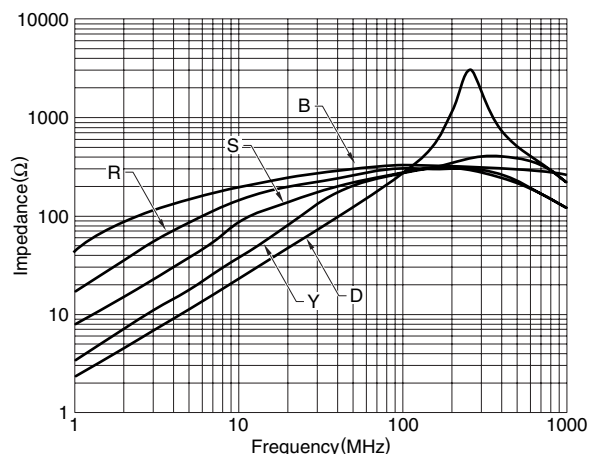
MMZ	1608	R	121	A	T
(1)	(2)	(3)	(4)	(5)	(6)

- (1) Series name  
 (2) Dimensions L×W  
 (3) Material code  
 (4) Nominal impedance  
 121:120Ω at 100MHz  
 (5) Characteristic type  
 (6) Packaging style  
 T:Taping

### MATERIAL CHARACTERISTICS

- R material:** For wide frequency applications calling for broad impedance characteristics.  
 For digital signal line applications calling requiring good waveform integrity. Impedance values selected for effectiveness at 10 to 200MHz.
- S material:** Standard type that features impedance characteristics similar to those of a typical ferrite core.  
 For signal line applications in which the blocking region is near 100MHz. Impedance values selected for effectiveness at 40 to 300MHz.
- Y material:** High frequency range type intended for the 100MHz region and above.  
 For signal line applications in which the signal frequency is far from the cutoff frequency. Impedance values selected for effectiveness at 80 to 400MHz.
- A material:** This high-impedance product is based on the impedance frequency characteristics of our Y-material. The product offers excellent impedance characteristics, which is greater than 2500Ω, in the vicinity of 100MHz range (MMZ1608A252B).
- D material:** For applications calling for low insertion loss at low frequencies and sharply increasing impedance at high frequencies. Designed for high impedance at high frequencies (200 to 500MHz) for signal line applications.

### TYPICAL MATERIAL CHARACTERISTICS



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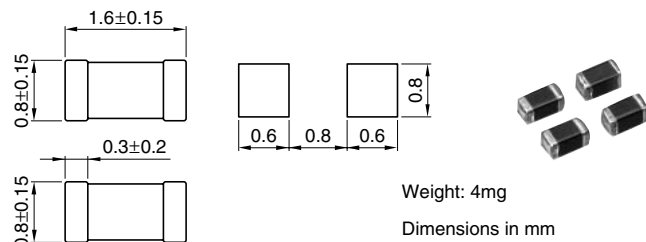
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### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



### TEMPERATURE RANGES

Operating/storage -55 to +125°C

### PACKAGING STYLE AND QUANTITIES

Packaging style Quantity  
Taping 4000 pieces/reel

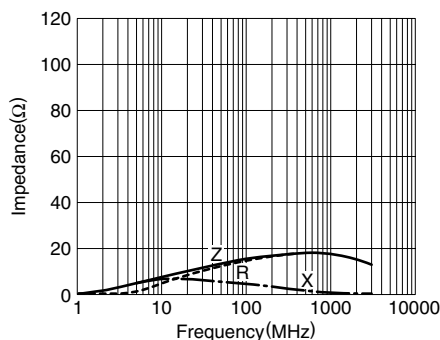
### ELECTRICAL CHARACTERISTICS

Part No.	Impedance ( $\Omega$ ) $\pm$ 25% [100MHz]	DC resistance ( $\Omega$ )max.	Rated current (mA)max.
MMZ1608R150A	15	0.05	1500
MMZ1608R300A	30	0.05	1500
MMZ1608R600A	60	0.1	800
MMZ1608R121A	120	0.18	500
MMZ1608R301A	300	0.25	500
MMZ1608R601A	600	0.4	500
MMZ1608R102A	1000	0.5	400
MMZ1608S400A	40	0.1	600
MMZ1608S800A	80	0.15	500
MMZ1608S121A	120	0.2	500
MMZ1608S181A	180	0.2	500
MMZ1608S301A	300	0.3	500
MMZ1608S601A	600	0.4	500
MMZ1608S102A	1000	0.5	400
MMZ1608Y150B	15	0.05	1500
MMZ1608Y300B	30	0.05	1500
MMZ1608Y600B	60	0.15	500
MMZ1608Y121B	120	0.2	500
MMZ1608Y301B	300	0.3	500
MMZ1608Y601B	600	0.4	500
MMZ1608Y102B	1000	0.5	400
MMZ1608Y152B	1500	0.6	300
MMZ1608A152E	1500	1	300
MMZ1608A252B	2500	0.8	200
MMZ1608D800B	80	0.4	500
MMZ1608D121B	120	0.5	400
MMZ1608D301B	300	0.7	300

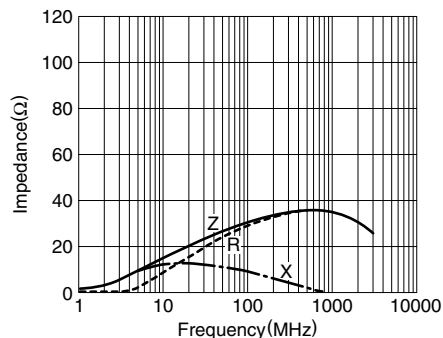
### TYPICAL ELECTRICAL CHARACTERISTICS

#### Z, X, R vs. FREQUENCY CHARACTERISTICS

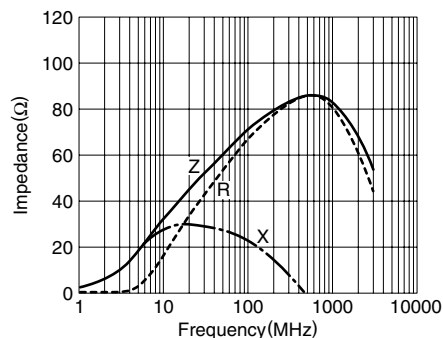
MMZ1608R150A



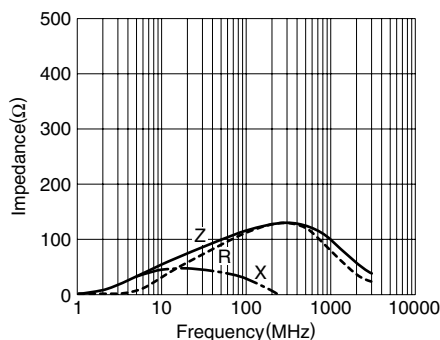
MMZ1608R300A



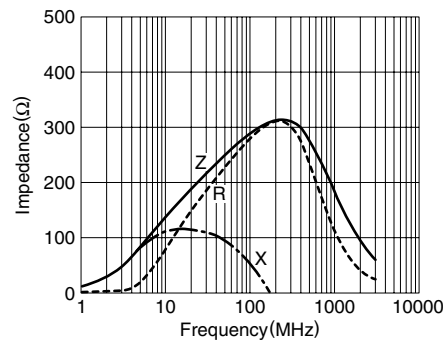
MMZ1608R600A



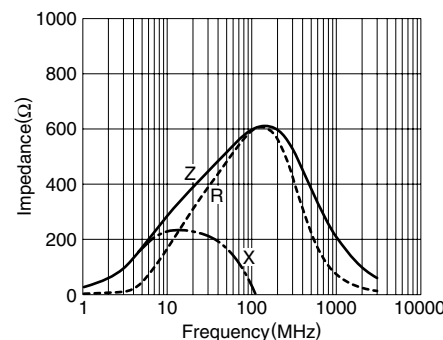
MMZ1608R121A



MMZ1608R301A



MMZ1608R601A



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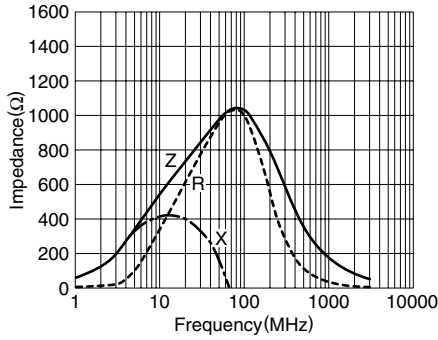
SMD

# MMZ Series MMZ1608 Type

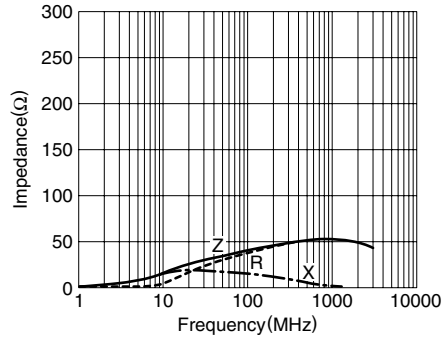
Size: JIS/IEC 1608, EIA 0603

## TYPICAL ELECTRICAL CHARACTERISTICS Z, X, R vs. FREQUENCY CHARACTERISTICS

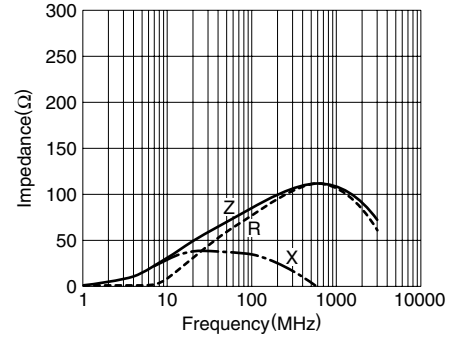
MMZ1608R102A



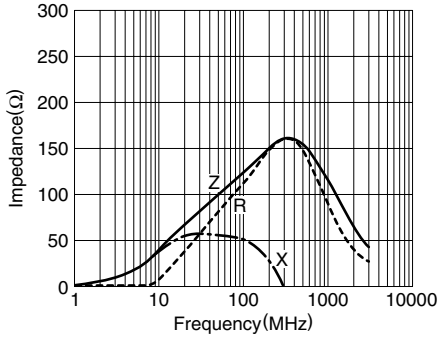
MMZ1608S400A



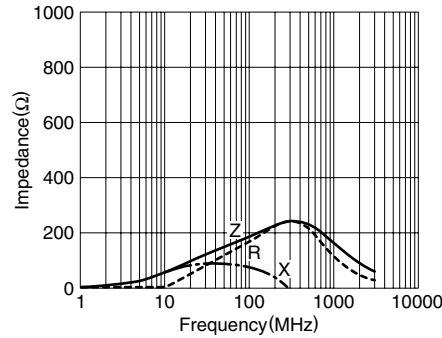
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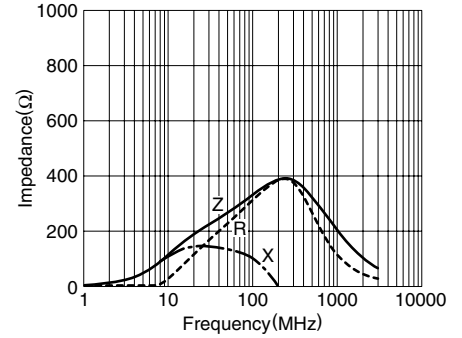
MMZ1608S121A



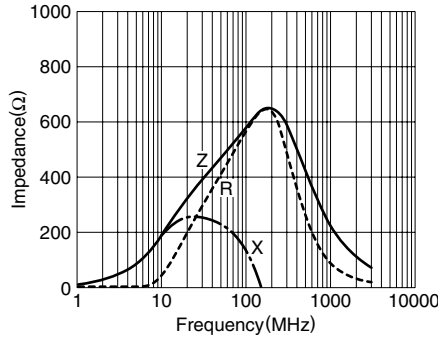
MMZ1608S181A



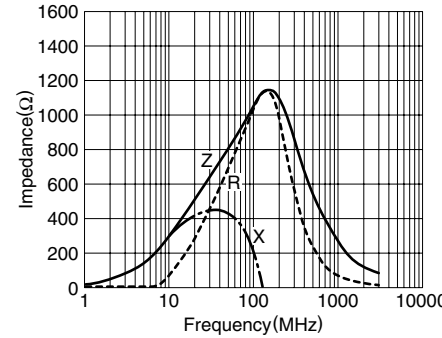
MMZ1608S301A



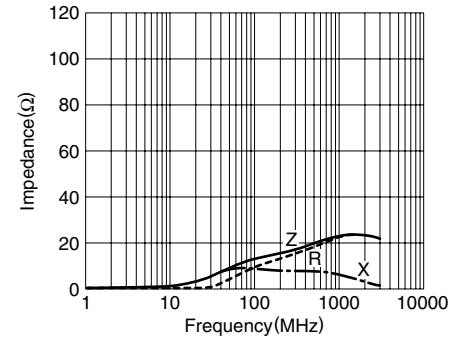
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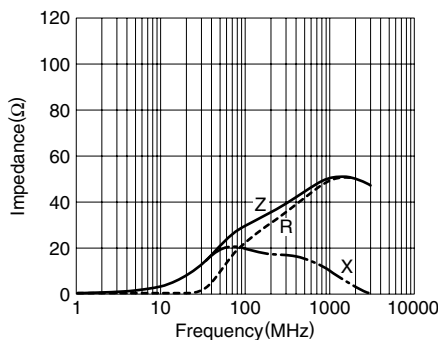
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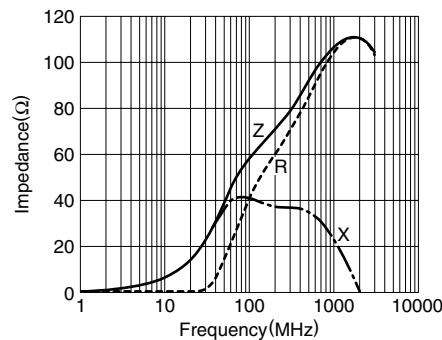
MMZ1608Y150B



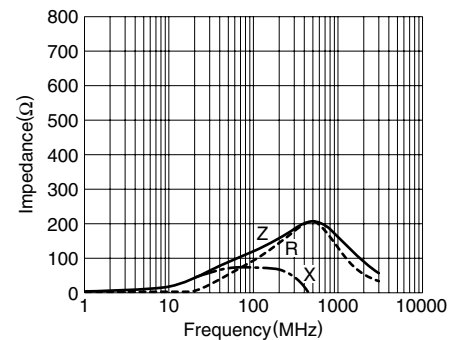
MMZ1608Y300B



MMZ1608Y600B



MMZ1608Y121B



• All specifications are subject to change without notice.

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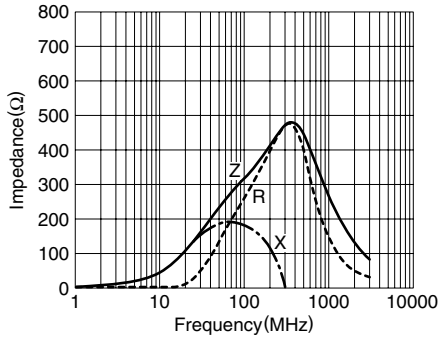
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# MMZ Series MMZ1608 Type

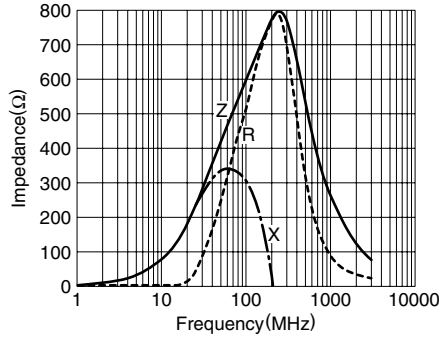
Size: JIS/IEC 1608, EIA 0603

## TYPICAL ELECTRICAL CHARACTERISTICS Z, X, R vs. FREQUENCY CHARACTERISTICS

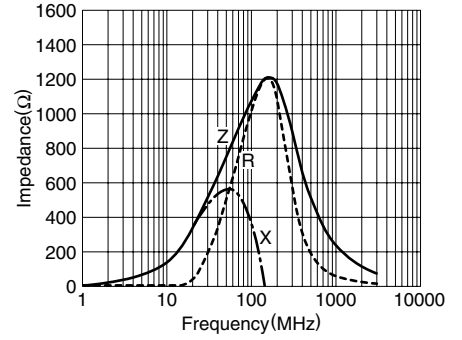
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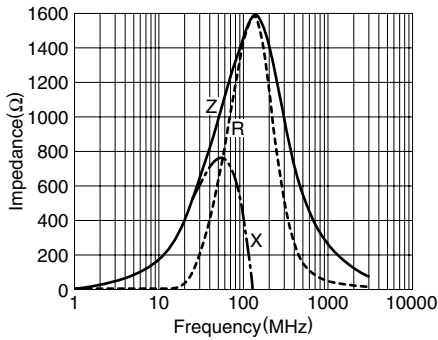
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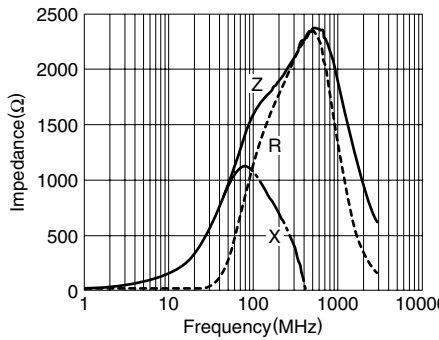
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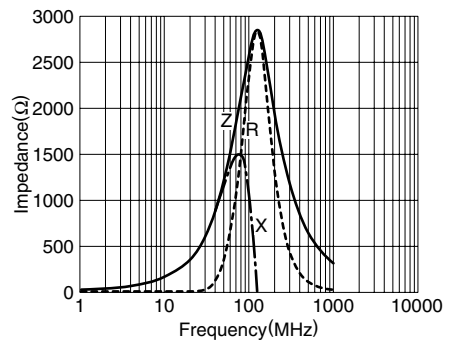
**MMZ1608Y152B**



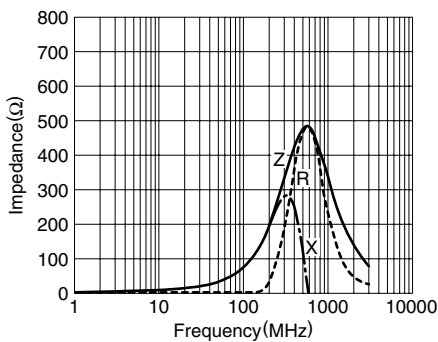
**MMZ1608A152E**



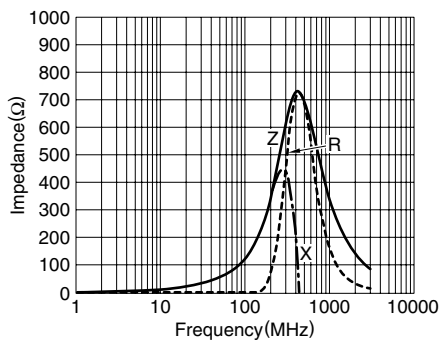
**MMZ1608A252B**



**MMZ1608D800B**



**MMZ1608D121B**



**MMZ1608D301B**

