



**THE DATASHEET OF  
MMZ1608Y102CTA00**



# Chip Beads(SMD) For Signal Line

Conformity to RoHS Directive

## MMZ Series MMZ1608-C Type

### FEATURES

- Two sizes: 1.6×0.8×0.6 and 1.6×0.8×0.8mm. Chip bead(impeder) built using 5-materials construction.
- Layout of the interior electrode structure has been optimized, thereby improving high frequency characteristics, decreasing Rdc, and lowering height.
- Size standardized for use by automatic assembly equipment. No preferred orientation.
- Either flow or reflow soldering method 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.
- It is a product conforming to RoHS directive.

### APPLICATIONS

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

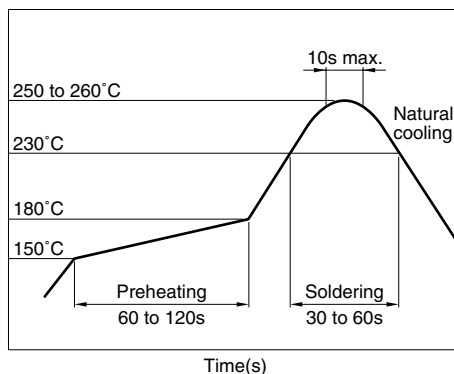
### PRODUCT IDENTIFICATION

|     |      |     |     |     |     |
|-----|------|-----|-----|-----|-----|
| MMZ | 1608 | R   | 121 | C   | 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

### RECOMMENDED SOLDERING CONDITION

#### REFLOW SOLDERING



- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application are considered the following:  
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

### MATERIAL CHARACTERISTICS

**B material:** This type is perfectly suited for fast digital signals. By equalizing R components and X components that beads possess at a frequency of 5MHz, it is able to suppress overshooting, undershooting and ringing of fast digital signals.

**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.

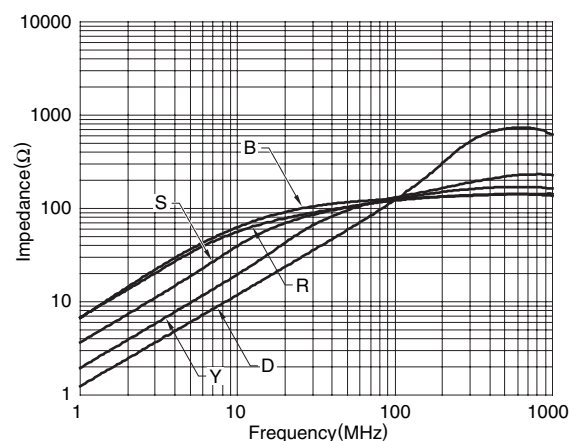
For signal line applications in which the blocking region is near 100MHz. Impedance values selected for effectiveness at 40 to 300MHz.

**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.

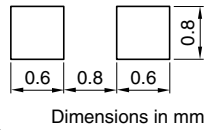
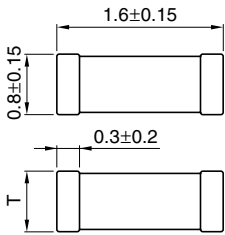
**D material:** For applications calling for low insertion loss at low frequencies and sharply increasing impedance at high frequencies. Designed for high impedance at high frequencies (200 to 500MHz) for signal line applications.

### TYPICAL MATERIAL CHARACTERISTICS



• All specifications are subject to change without notice.

## SHAPES AND DIMENSIONS/ RECOMMENDED PC BOARD PATTERN



Dimensions in mm

| Thickness(T) | Weight |
|--------------|--------|
| 0.6±0.15mm   | 3mg    |
| 0.8±0.15mm   | 4mg    |

## TEMPERATURE RANGES

|                   |               |
|-------------------|---------------|
| Operating/storage | -55 to +125°C |
|-------------------|---------------|

## PACKAGING STYLE AND QUANTITIES

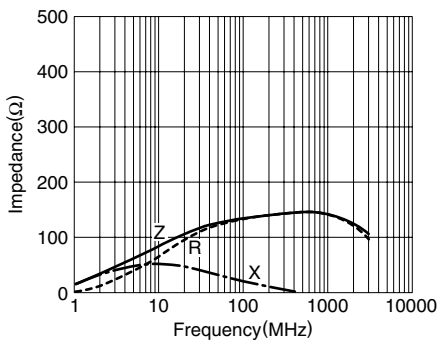
| Packaging style | Quantity           |
|-----------------|--------------------|
| Taping          | 4000 pieces / reel |

## ELECTRICAL CHARACTERISTICS

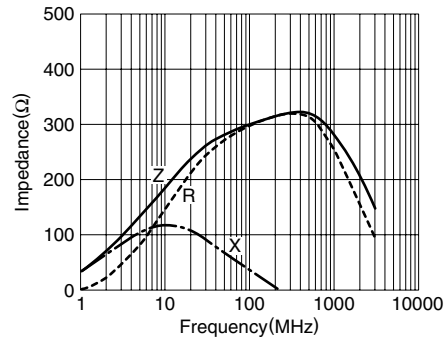
| Part No.     | Impedance (Ω)<br>[100MHz] | DC resistance (Ω)max. | Rated current (mA)max. | Product's thickness T(mm) |
|--------------|---------------------------|-----------------------|------------------------|---------------------------|
| MMZ1608B121C | 120±25%                   | 0.15                  | 600                    | 0.6                       |
| MMZ1608B301C | 300±25%                   | 0.25                  | 500                    | 0.6                       |
| MMZ1608B601C | 600±25%                   | 0.4                   | 500                    | 0.6                       |
| MMZ1608R121C | 120±25%                   | 0.15                  | 500                    | 0.6                       |
| MMZ1608R301C | 300±25%                   | 0.25                  | 500                    | 0.6                       |
| MMZ1608R601C | 600±25%                   | 0.3                   | 500                    | 0.6                       |
| MMZ1608R102C | 1000±25%                  | 0.45                  | 400                    | 0.8                       |
| MMZ1608S800C | 80±25%                    | 0.15                  | 500                    | 0.6                       |
| MMZ1608S121C | 120±25%                   | 0.15                  | 500                    | 0.6                       |
| MMZ1608S181C | 180±25%                   | 0.2                   | 500                    | 0.6                       |
| MMZ1608S301C | 300±25%                   | 0.25                  | 500                    | 0.6                       |
| MMZ1608S601C | 600±25%                   | 0.3                   | 500                    | 0.6                       |
| MMZ1608S102C | 1000±25%                  | 0.45                  | 400                    | 0.8                       |
| MMZ1608Y121C | 120±25%                   | 0.15                  | 500                    | 0.6                       |
| MMZ1608Y301C | 300±25%                   | 0.25                  | 500                    | 0.6                       |
| MMZ1608Y601C | 600±25%                   | 0.3                   | 500                    | 0.6                       |
| MMZ1608Y102C | 1000±25%                  | 0.45                  | 400                    | 0.8                       |
| MMZ1608Y152C | 1500±25%                  | 0.5                   | 300                    | 0.8                       |
| MMZ1608D050C | 5±2Ω                      | 0.1                   | 700                    | 0.8                       |
| MMZ1608D100C | 10±5Ω                     | 0.15                  | 500                    | 0.6                       |
| MMZ1608D220C | 22±25%                    | 0.2                   | 500                    | 0.6                       |
| MMZ1608D500C | 50±25%                    | 0.3                   | 500                    | 0.6                       |
| MMZ1608D800C | 80±25%                    | 0.35                  | 500                    | 0.6                       |
| MMZ1608D121C | 120±25%                   | 0.45                  | 400                    | 0.6                       |
| MMZ1608D241C | 240±25%                   | 0.6                   | 300                    | 0.8                       |

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

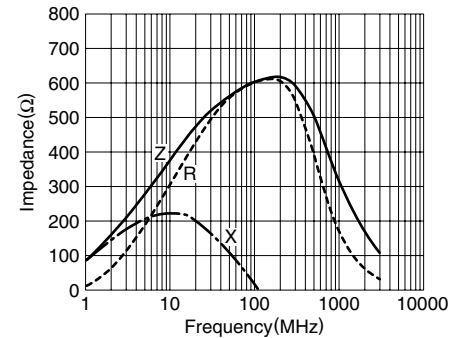
MMZ1608B121C



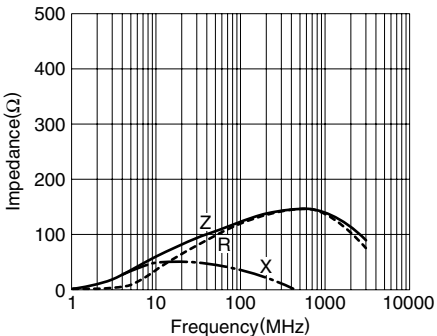
MMZ1608B301C



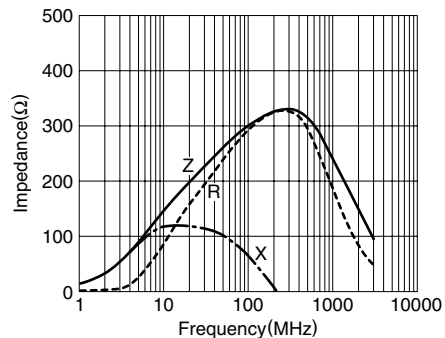
MMZ1608B601C



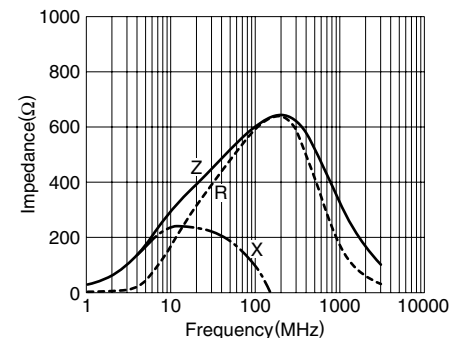
MMZ1608R121C



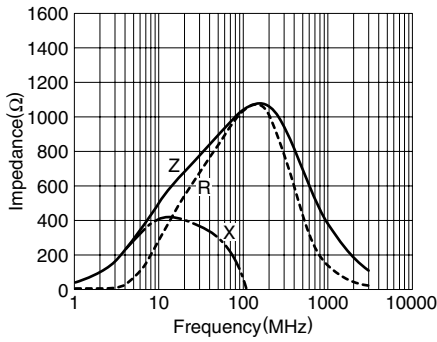
MMZ1608R301C



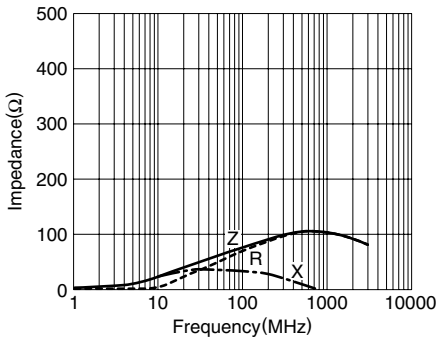
MMZ1608R601C



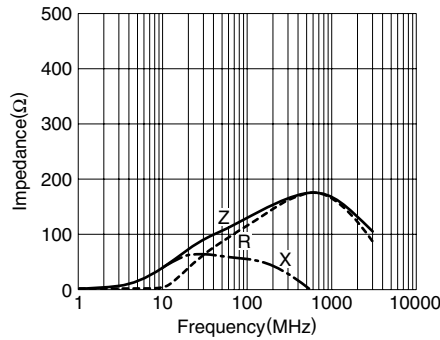
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**Z, X, R vs. FREQUENCY CHARACTERISTICS**  
**MMZ1608R102C**



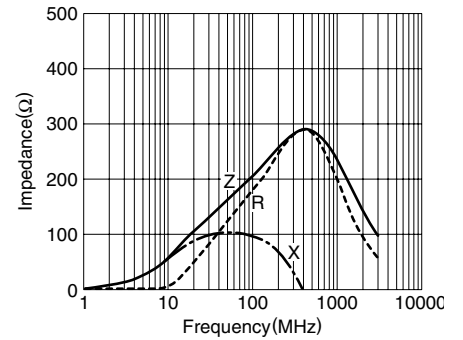
**MMZ1608S800C**



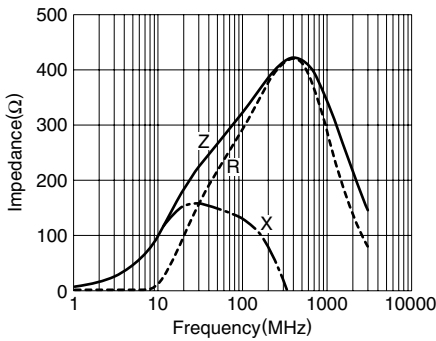
**MMZ1608S121C**



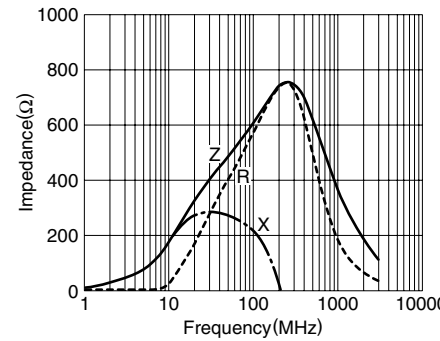
**MMZ1608S181C**



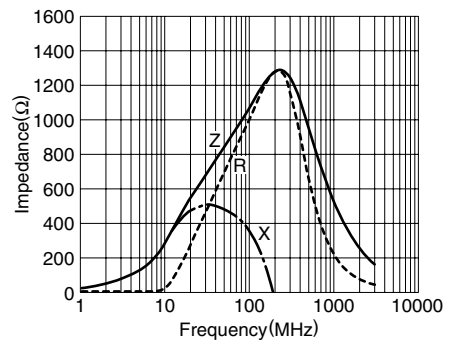
**MMZ1608S301C**



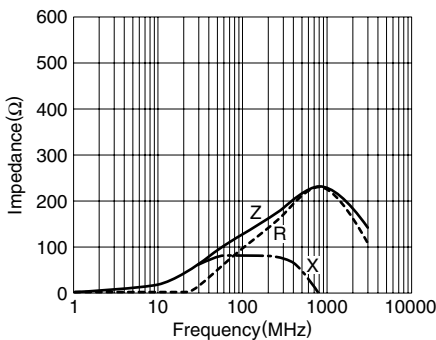
**MMZ1608S601C**



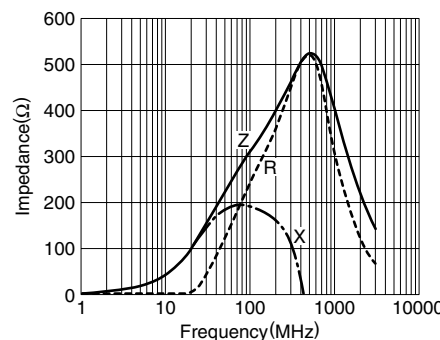
**MMZ1608S102C**



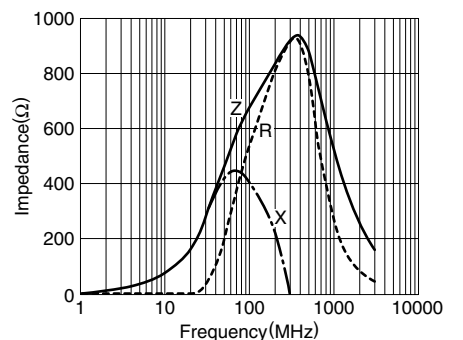
**MMZ1608Y121C**



**MMZ1608Y301C**



**MMZ1608Y601C**

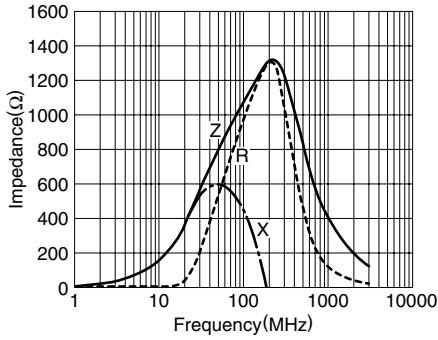


• All specifications are subject to change without notice.

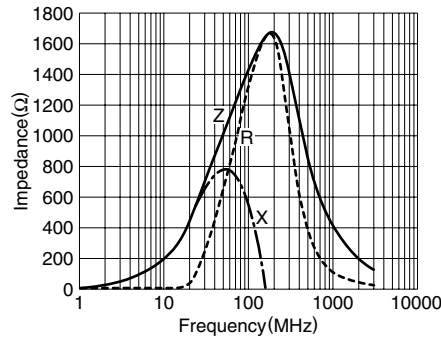
**TYPICAL ELECTRICAL CHARACTERISTICS**

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

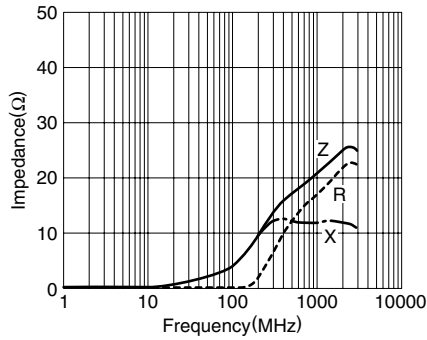
**MMZ1608Y102C**



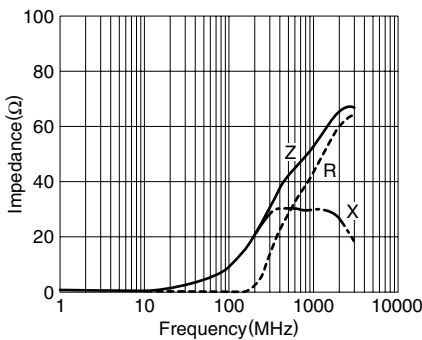
**MMZ1608Y152C**



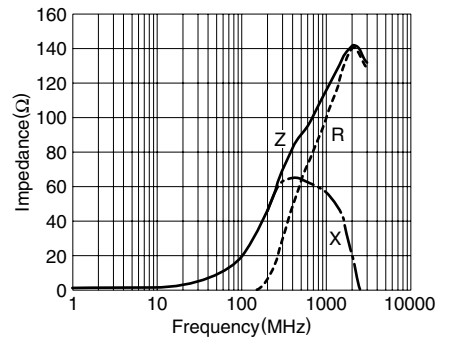
**MMZ1608D050C**



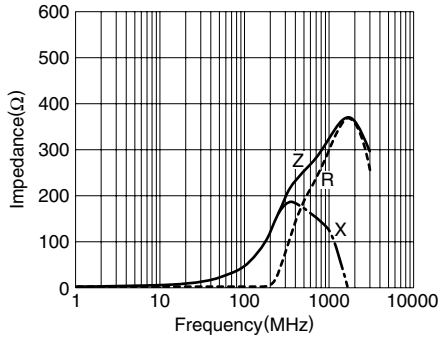
**MMZ1608D100C**



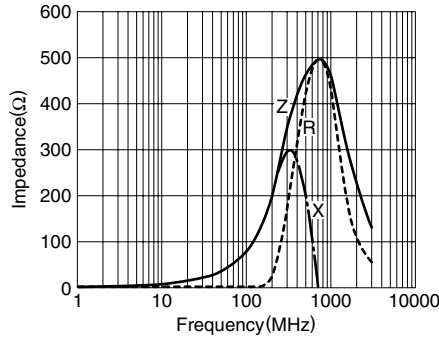
**MMZ1608D220C**



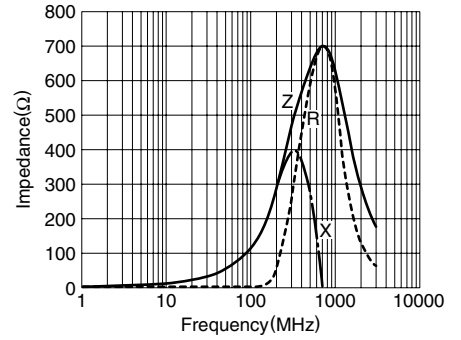
**MMZ1608D500C**



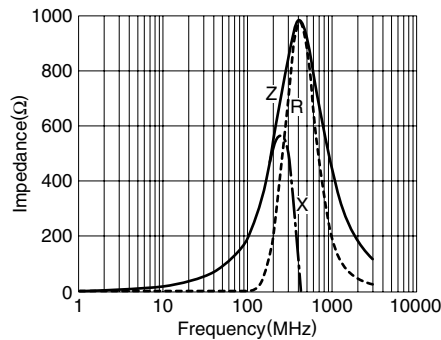
**MMZ1608D800C**



**MMZ1608D121C**



**MMZ1608D241C**



• All specifications are subject to change without notice.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View MMZ1608Y102CTA00 on WIN SOURCE](#)
- ⊖ [TDK Corporation Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management