

## EMC Components

### Ferrite Beads

#### SMD

## MPZ Series MPZ1608 Type

Size: JIS/IEC 1608, EIA 0603

TDK has manufactured MPZ2012 type as EMI countermeasure product for power line, and now maximizes impedance to 600Ω (at 100MHz) and rated current to 1A, while minimizes Rdc under 150mΩ as 1608 type.

#### FEATURES

- This type is the best for energy-saving in the low DC resistance.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

#### APPLICATIONS

Noise suppression of personal computers, USB/IEEE1394 interfaces, HDDs, CD-ROMs, DVDs, DSCs, LCD panels, cellular phones, etc.

#### PRODUCT IDENTIFICATION

| MPZ | 1608 | S   | 221 | A   | T   |
|-----|------|-----|-----|-----|-----|
| (1) | (2)  | (3) | (4) | (5) | (6) |

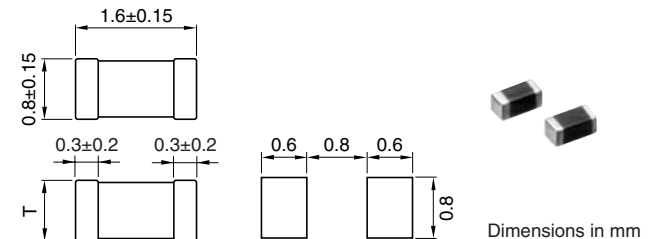
- (1) Series name  
(2) Dimensions L×W  
(3) Material code  
(4) Nominal impedance  
221: 220Ω at 100MHz  
(5) Characteristic type  
(6) Packaging style  
T: Taping

#### ELECTRICAL CHARACTERISTICS

| Part No.     | Impedance<br>(Ω)[100MHz] | DC resistance<br>(Ω)max. | Rated current*<br>(A)max. | Thickness<br>(T)mm |
|--------------|--------------------------|--------------------------|---------------------------|--------------------|
| MPZ1608S300A | 30±10Ω                   | 0.01                     | 5                         | 0.6                |
| MPZ1608S600A | 60±25%                   | 0.02                     | 3.5                       | 0.6                |
| MPZ1608S101A | 100±25%                  | 0.03                     | 3                         | 0.6                |
| MPZ1608S221A | 220±25%                  | 0.05                     | 2                         | 0.8                |
| MPZ1608R391A | 390±25%                  | 0.12                     | 1.2                       | 0.8                |
| MPZ1608S601A | 600±25%                  | 0.15                     | 1                         | 0.8                |
| MPZ1608Y600B | 60±25%                   | 0.03                     | 2.3                       | 0.8                |
| MPZ1608Y101B | 100±25%                  | 0.05                     | 2.0                       | 0.8                |
| MPZ1608Y151B | 150±25%                  | 0.07                     | 1.8                       | 0.8                |
| MPZ1608D300B | 30±10Ω                   | 0.07                     | 1.8                       | 0.8                |
| MPZ1608D600B | 60±25%                   | 0.12                     | 1.2                       | 0.8                |
| MPZ1608D101B | 100±25%                  | 0.15                     | 1.0                       | 0.8                |

\* Please refer to the graph of RATED CURRENT vs. TEMPERATURE CHARACTERISTICS(DERATING) about the rating current at 85°C or more in temperature of the product.

#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



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

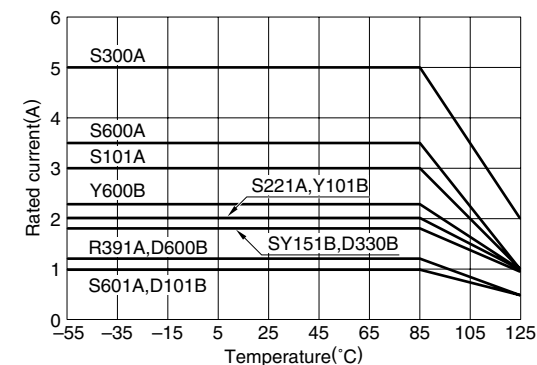
#### TEMPERATURE RANGES

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

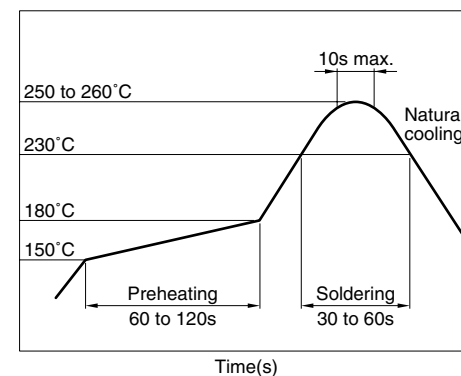
#### PACKAGING STYLE AND QUANTITIES

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

#### RATED CURRENT vs. TEMPERATURE CHARACTERISTICS (DERATING)



#### 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.)

- All specifications are subject to change without notice.

# EMC Components

Ferrite Beads

SMD

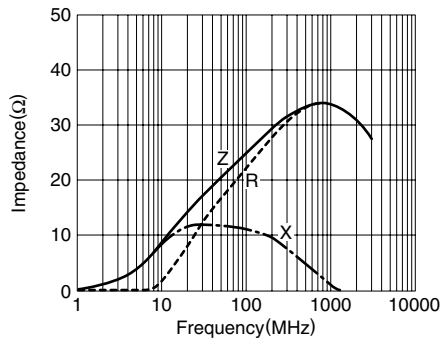
## MPZ Series MPZ1608 Type

Size: JIS/IEC 1608, EIA 0603

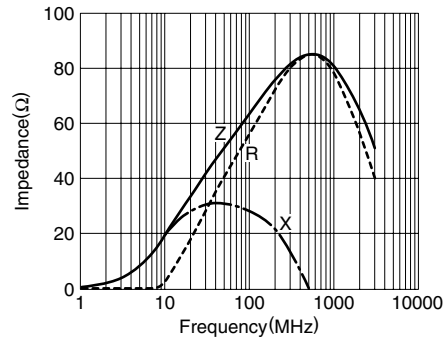
### TYPICAL ELECTRICAL CHARACTERISTICS

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

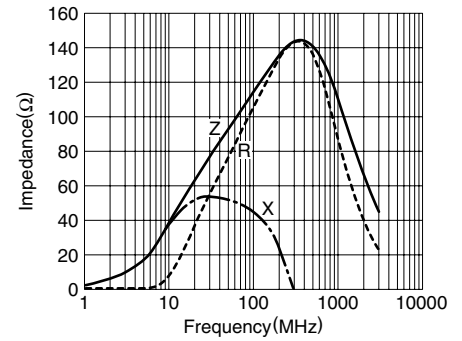
MPZ1608S300A



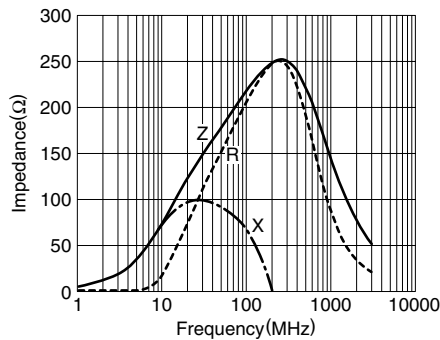
MPZ1608S600A



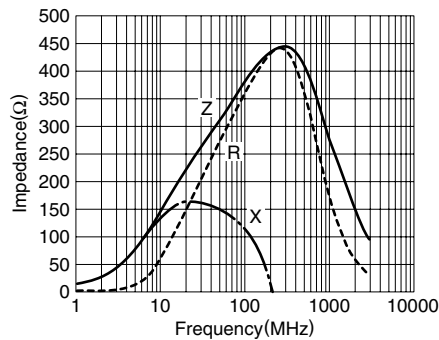
MPZ1608S101A



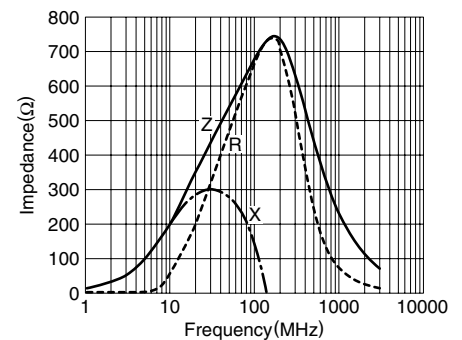
MPZ1608S221A



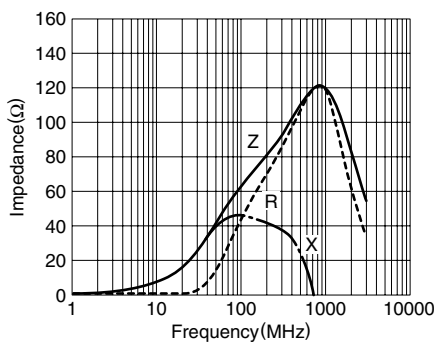
MPZ1608R391A



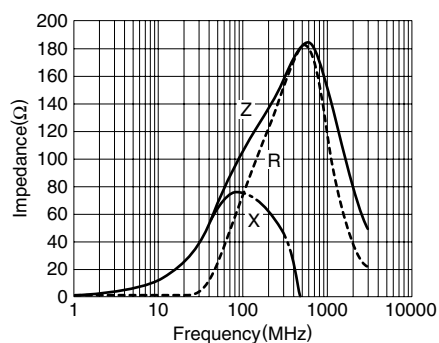
MPZ1608S601A



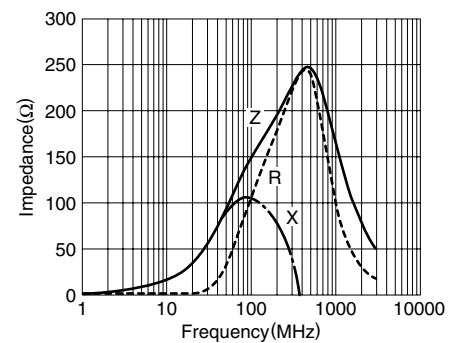
MPZ1608Y600B



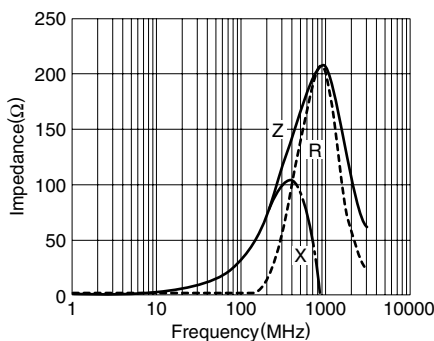
MPZ1608Y101B



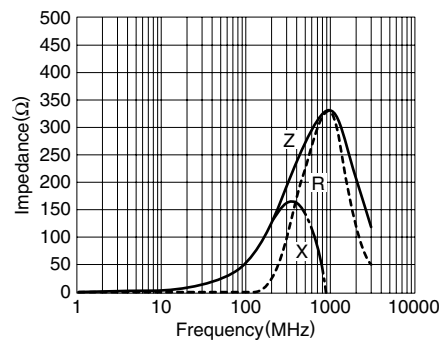
MPZ1608Y151B



MPZ1608D300B



MPZ1608D600B



MPZ1608D101B

