

# Chip Beads(SMD) For Power Line

Conformity to RoHS Directive

## MPZ Series MPZ2012 Type

### FEATURES

- The MPZ series are multilayer chip impeders for power supply line applications.
- High miniaturized, these parts nonetheless exhibit low DC resistance and high current handling capability.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

### APPLICATIONS

Removal of power line noises of cellular phones, PCs, note PCs, TVs, TV tuners, STBs, audio players, DVDs, DSCs, DVCs, game machines, digital photo frames, car navigation system, PNDs, etc.

### PRODUCT IDENTIFICATION

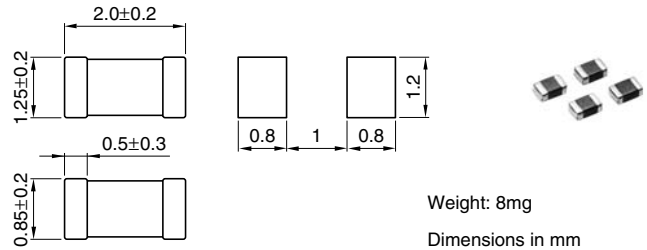
| MPZ | 2012 | S   | 331 | A   | T   |
|-----|------|-----|-----|-----|-----|
| (1) | (2)  | (3) | (4) | (5) | (6) |

- (1)Series name  
 (2)Dimensions L×W  
 (3)Material code  
 (4)Nominal impedance  
 331: 330Ω at 100MHz  
 (5)Characteristic type  
 (6)Packaging style  
 T: Taping

### HANDLING AND PRECAUTIONS

- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.

### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



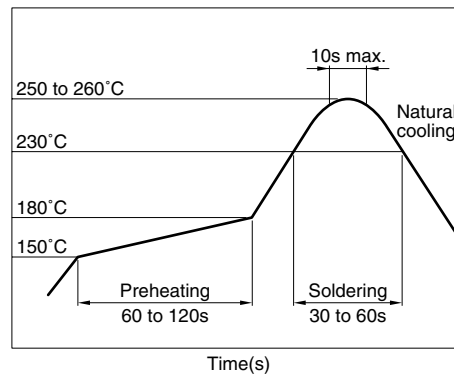
### TEMPERATURE RANGES

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

### PACKAGING STYLE AND QUANTITIES

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

### 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.

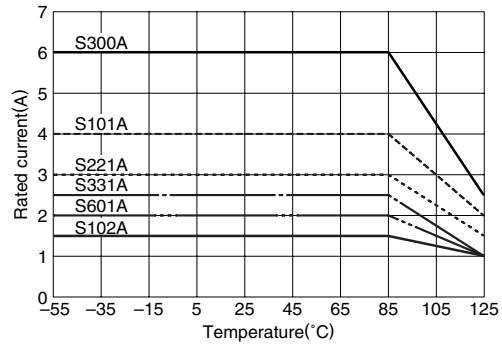
### ELECTRICAL CHARACTERISTICS

| Part No.     | Impedance (Ω)[100MHz]*1 | DC resistance (Ω)max. | Rated current*2 (A)max. |
|--------------|-------------------------|-----------------------|-------------------------|
| MPZ2012S300A | 30±10Ω                  | 0.01                  | 6                       |
| MPZ2012S101A | 100±25%                 | 0.02                  | 4                       |
| MPZ2012S221A | 220±25%                 | 0.04                  | 3                       |
| MPZ2012S331A | 330±25%                 | 0.05                  | 2.5                     |
| MPZ2012S601A | 600±25%                 | 0.1                   | 2                       |
| MPZ2012S102A | 1000±25%                | 0.15                  | 1.5                     |

\*1 Test equipment: E4991A or equivalent  
 Test tool: 16192A or equivalent  
 Test temperature: 25±10°C

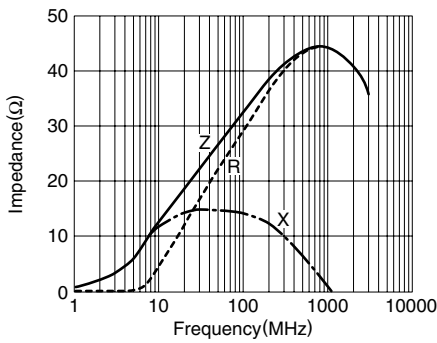
\*2 Please refer to the graph of RATED CURRENT vs. TEMPERATURE CHARACTERISTICS(DERATING) about the rating current at 85°C or more in temperature of the product.

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

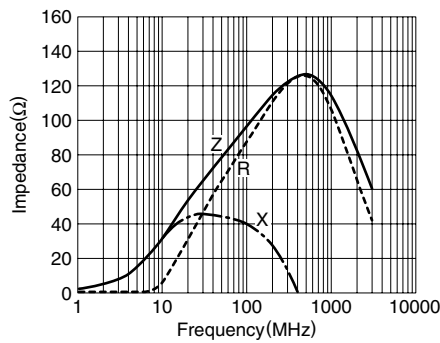


### TYPICAL ELECTRICAL CHARACTERISTICS Z, X, R vs. FREQUENCY CHARACTERISTICS

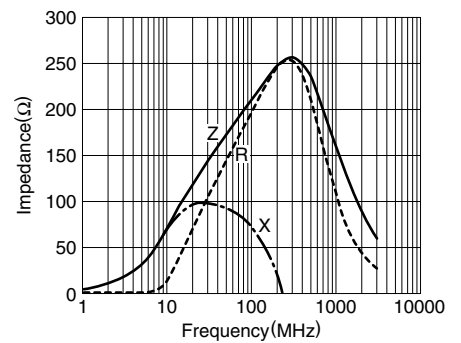
MPZ2012S300A



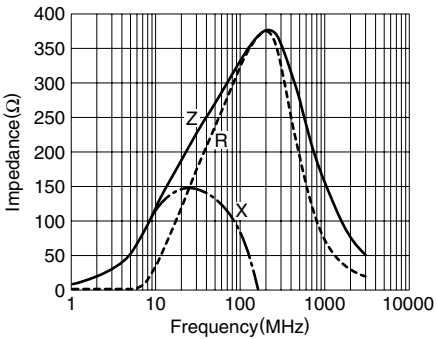
MPZ2012S101A



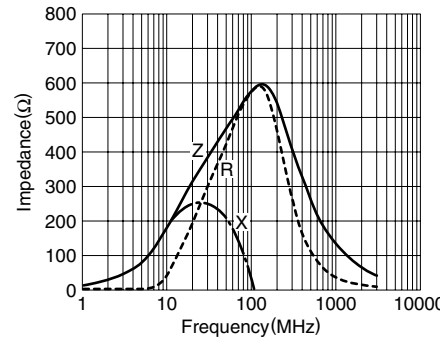
MPZ2012S221A



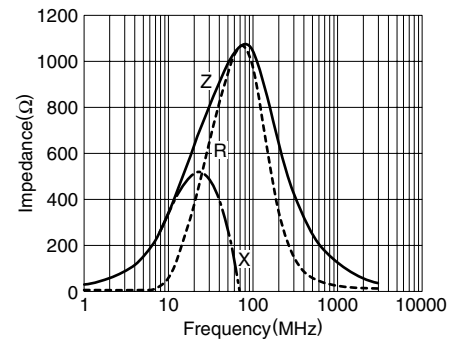
MPZ2012S331A



MPZ2012S601A

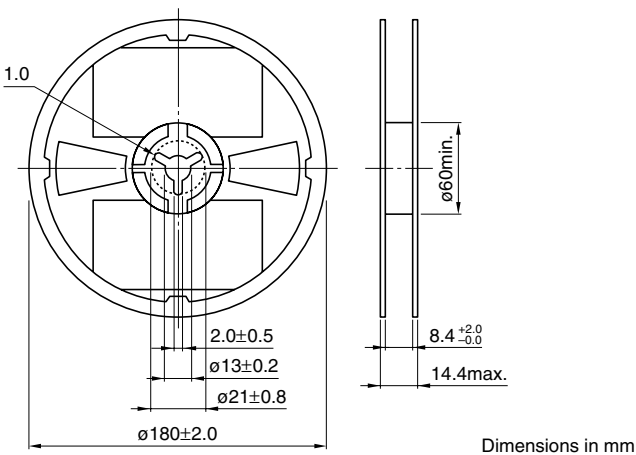


MPZ2012S102A

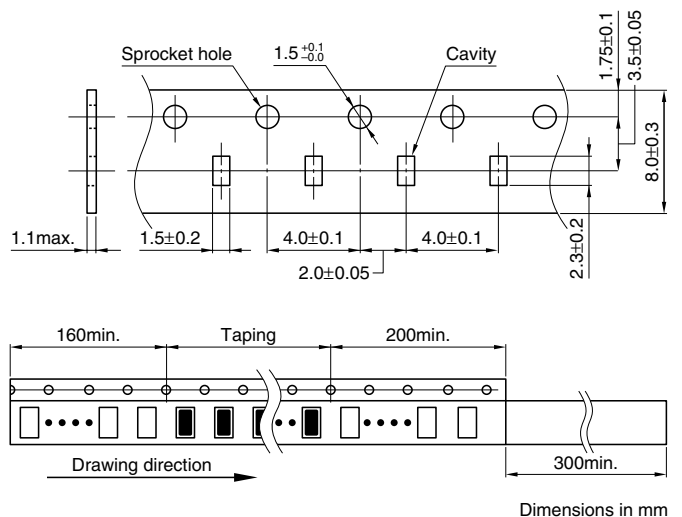


### PACKAGING STYLES

#### REEL DIMENSIONS



#### TAPE DIMENSIONS



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