

# 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

Noise elimination of DC power supply lines for USB interface circuitry, personal computers, electronic games, hard disk drives, and other general electronic equipment.

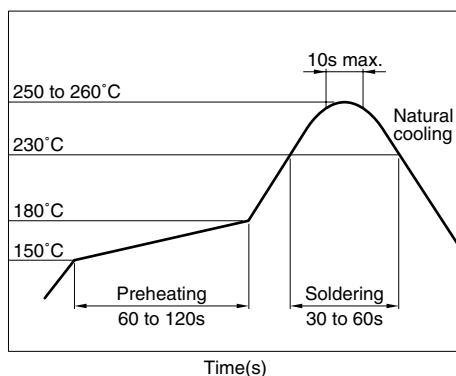
Also effective as a noise countermeasure in signal lines.

### PRODUCT IDENTIFICATION

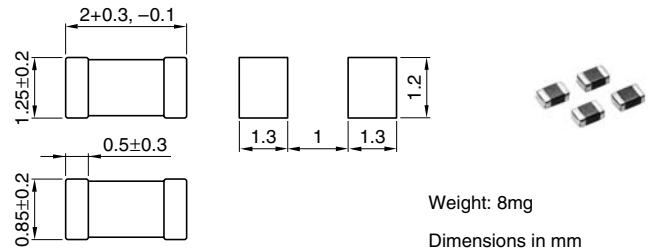
| MPZ | 2012 | S   | 331 | A   | T   |
|-----|------|-----|-----|-----|-----|
| (1) | (2)  | (3) | (4) | (5) | (6) |

- (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

### RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



### 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 |

### 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.
- The inductance value may change due to magnetic saturation if the current exceeds the rated maximum.
- 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.

• 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

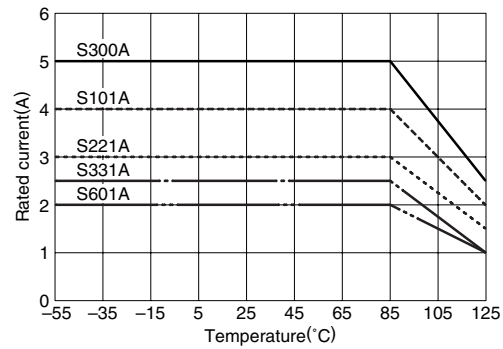
| Part No.     | Impedance<br>( $\Omega$ )[100MHz]* <sup>1</sup> | DC resistance<br>( $\Omega$ )max. | Rated current* <sup>2</sup><br>(A)max. |
|--------------|-------------------------------------------------|-----------------------------------|----------------------------------------|
| MPZ2012S300A | 30 $\pm$ 10 $\Omega$                            | 0.01                              | 5                                      |
| MPZ2012S101A | 100 $\pm$ 25%                                   | 0.02                              | 4                                      |
| MPZ2012S221A | 220 $\pm$ 25%                                   | 0.04                              | 3                                      |
| MPZ2012S331A | 330 $\pm$ 25%                                   | 0.05                              | 2.5                                    |
| MPZ2012S601A | 600 $\pm$ 25%                                   | 0.1                               | 2                                      |

\*<sup>1</sup> Test equipment: E4991A or equivalent

Test tool: 16192A or equivalent

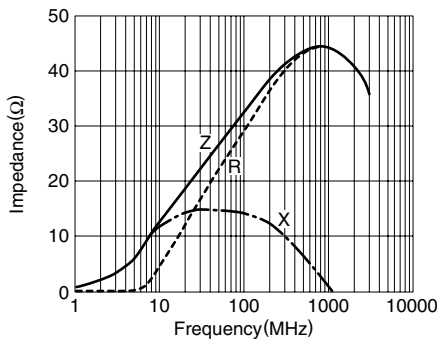
\*<sup>2</sup> Please refer to the graph of RATED CURRENT vs. TEMPERATURE CHARACTERISTICS(DERATING) about the rating current at 85°C or more in temperature of the product.

## RATED CURRENT vs. TEMPERATURE CHARACTERISTICS (DERATING)

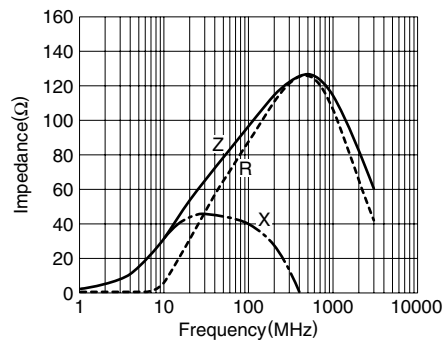


## TYPICAL ELECTRICAL CHARACTERISTICS Z, X, R vs. FREQUENCY CHARACTERISTICS

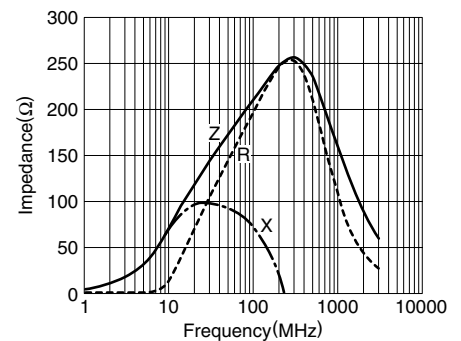
MPZ2012S300A



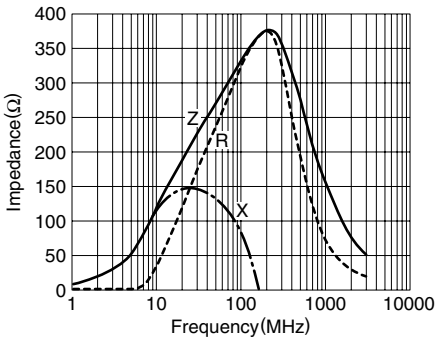
MPZ2012S101A



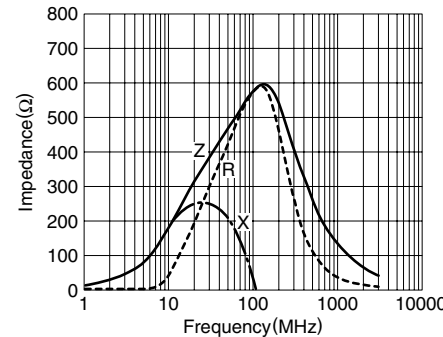
MPZ2012S221A



MPZ2012S331A

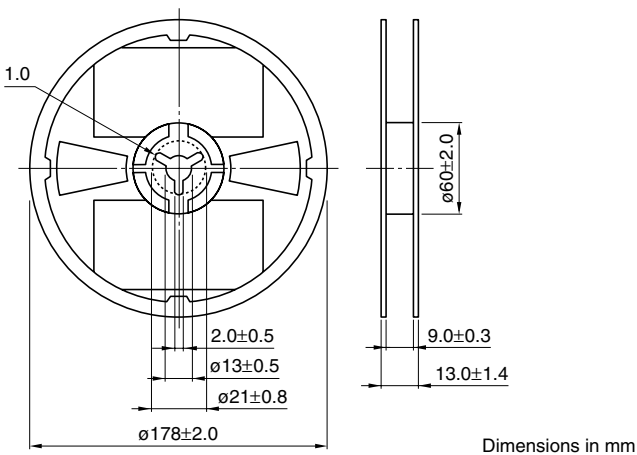


MPZ2012S601A



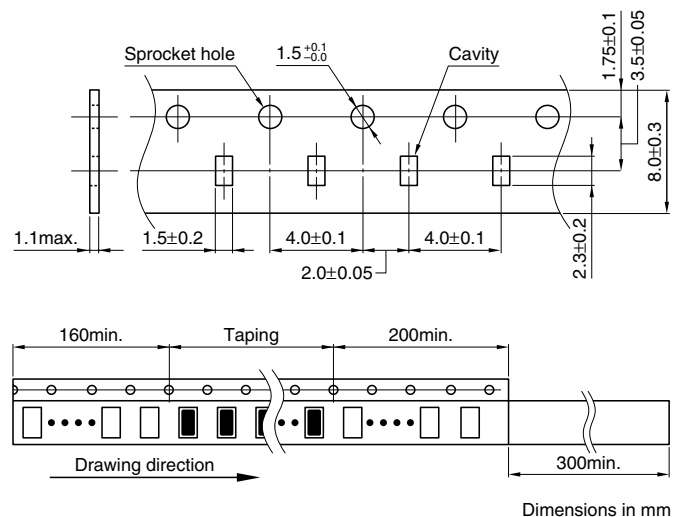
## PACKAGING STYLES

### REEL DIMENSIONS



Dimensions in mm

### TAPE DIMENSIONS



Dimensions in mm

• All specifications are subject to change without notice.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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