TDK

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.

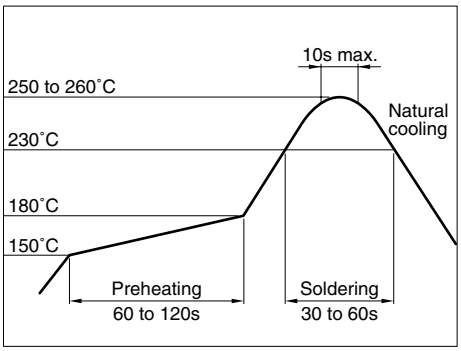
PRODUCT IDENTIFICATION

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

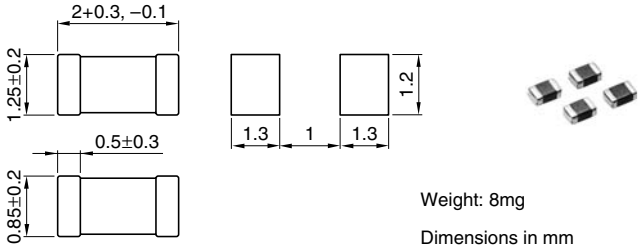
(1)Series name
(2)Dimensions L×W
(3)Material code
(4)Nominal impedance
331: 330Ω at 100MHz
(5)Characteristic type
(6)Packaging style
T: Taping

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



Weight: 8mg

Dimensions in mm

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.

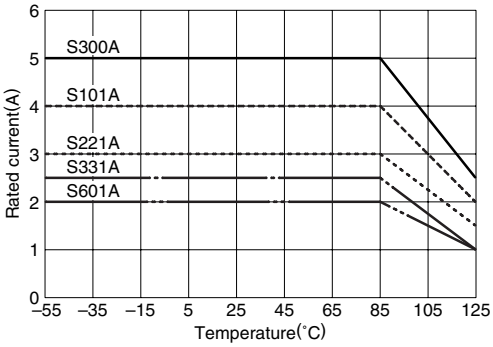
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application 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.)

ELECTRICAL CHARACTERISTICS

Part No.	Impedance (Ω)[100MHz]*1	DC resistance (Ω)max.	Rated current*2 (A)max.
MPZ2012S300A	30±10Ω	0.01	5
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

*1 Test equipment: E4991A or equivalent
Test tool: 16192A or equivalent
*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.

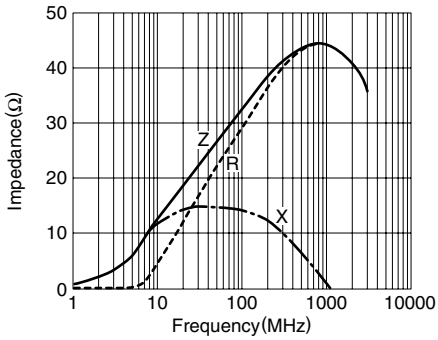
RATED CURRENT vs. TEMEPERATURE CHARACTERISTICS (DERATING)



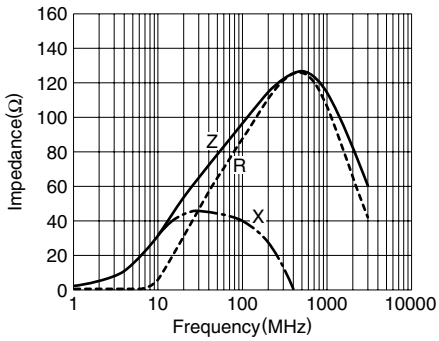
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

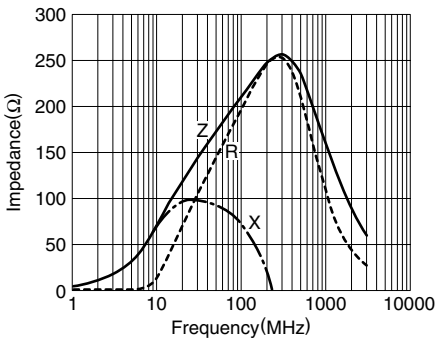
MPZ2012S300A



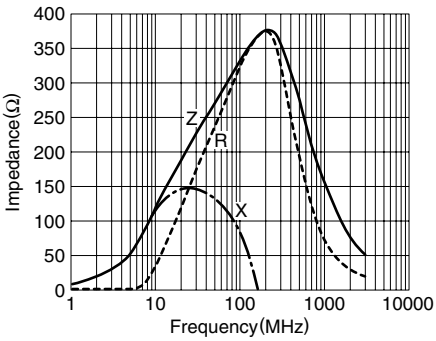
MPZ2012S101A



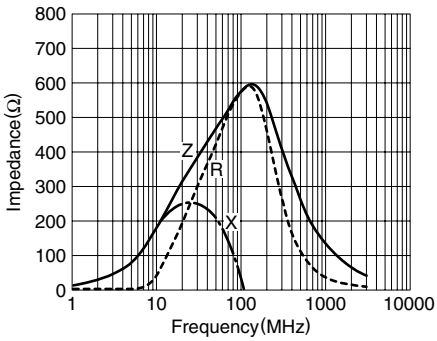
MPZ2012S221A



MPZ2012S331A

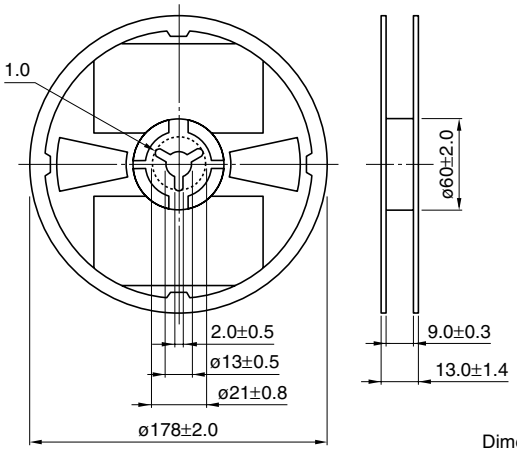


MPZ2012S601A



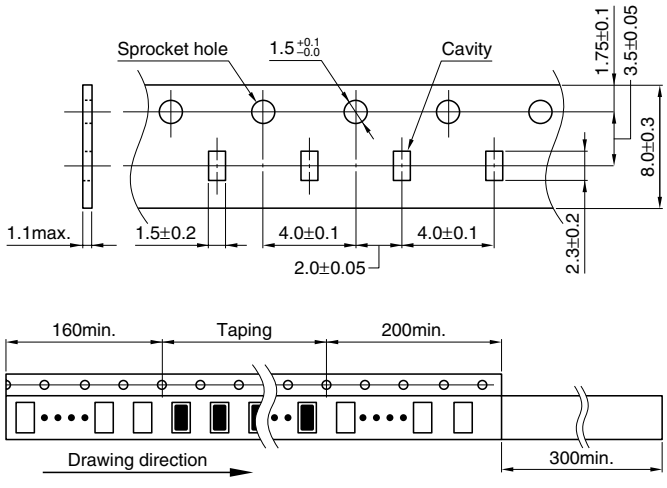
PACKAGING STYLES

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm