Chip Beads(SMD)
For Signal Line

Conformity to RoHS Directive

MMZ Series MMZ0603 Type

FEATURES

- This is a multilayered chip bead product with dimensions of L0.6×W0.3×T0.3mm.
- The product is magnetically shielded, allowing high density mounting.
- We refined the rules for internal conductor design to reduce floating capacity between conductors, which in turn has contributed to a dramatic improvement in high frequency characteristics. We have also been able to expand and reinforce the EMI suppression in the GHz range.
- It is a product conforming to RoHS directive.

APPLICATIONS

Removal of signal line noises of cellular phones, portable audio players, various modules, DSCs, portable game machines, etc.

PRODUCT IDENTIFICATION

MMZ	0603	S	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

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.

MATERIAL CHARACTERISTICS

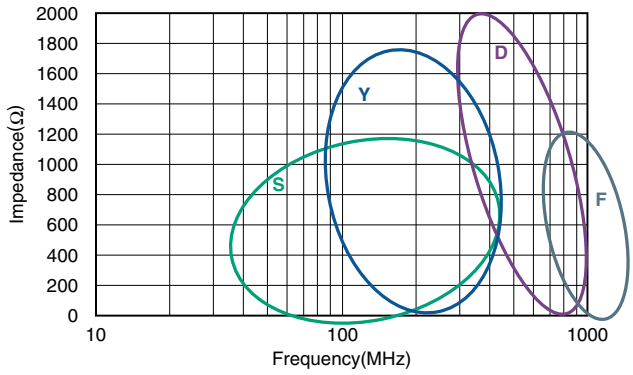
S material: Standard type that features impedance characteristics similar to those of a typical ferrite core.
For signal line applications in which the blocking region is near 100MHz. Impedance values selected for effectiveness at 40 to 300MHz.

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 (300MHz to 1GHz) for signal line applications.

F material: This new product inherits the characteristic of our D-material, namely its sharp impedance rise time, and its impedance peak frequency has been shifted higher into range. The product offers excellent noise suppression from 600MHz to as high as in the GHz range.

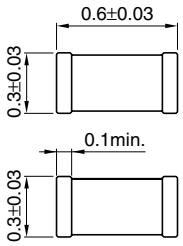
TYPICAL MATERIAL CHARACTERISTICS

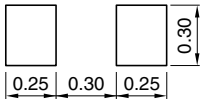


- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application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

SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN





Weight: 0.3mg

Dimensions in mm



TEMPERATURE RANGES

Operating/storage	–55 to +125°C

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	15000 pieces/reel

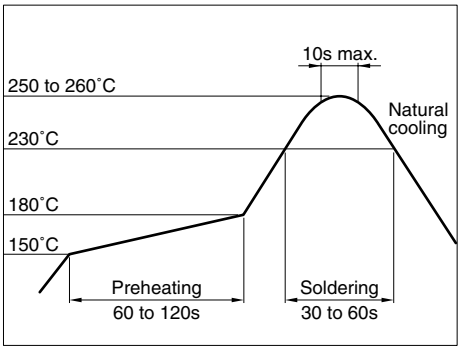
ELECTRICAL CHARACTERISTICS

Part No.	Impedance (Ω)[100MHz]*	DC resistance (Ω)max.	Rated current (mA)max.
MMZ0603S100C	10±5Ω	0.12	500
MMZ0603S800C	80±25%	0.37	200
MMZ0603S121C	120±25%	0.45	200
MMZ0603S241C	240±25%	0.75	200
MMZ0603S471C	470±25%	1.30	100
MMZ0603S601C	600±25%	1.45	100
MMZ0603Y121C	120±25%	0.75	200
MMZ0603Y241C	240±25%	0.80	200
MMZ0603Y471C	470±25%	1.40	200
MMZ0603Y601C	600±25%	1.50	200
MMZ0603D330C	33±25%	0.85	100
MMZ0603D560C	56±25%	1.05	100
MMZ0603D800C	80±25%	1.40	100
MMZ0603F100C	10±5Ω	0.60	200
MMZ0603F220C	22±25%	1.00	200
MMZ0603F330C	33±25%	1.30	150

* Test equipment: E4991A or equivalent
Test tool: 16197 or equivalent
Test temperature: 25±10°C

RECOMMENDED SOLDERING CONDITION

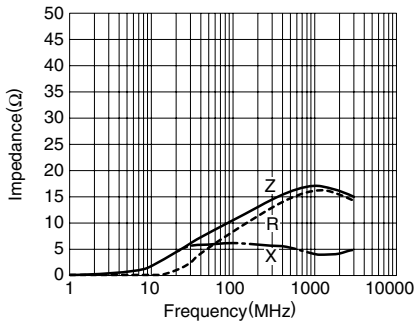
REFLOW SOLDERING



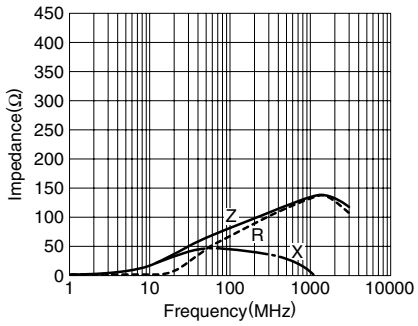
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

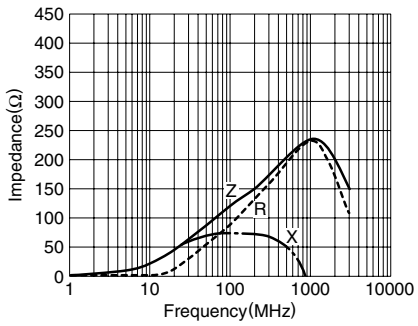
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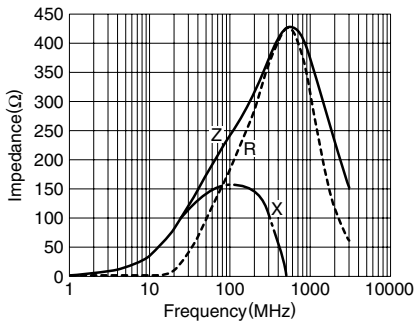
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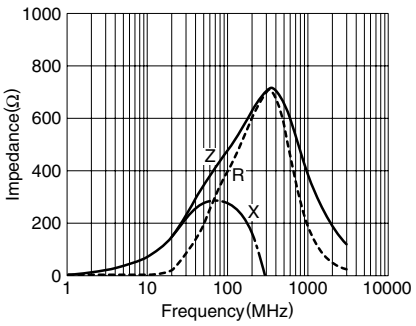
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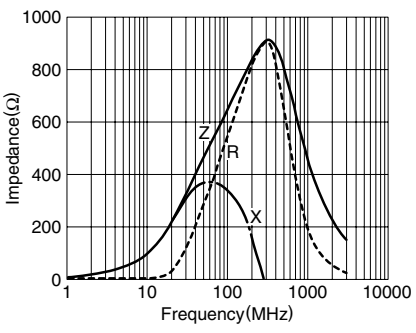
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MMZ0603S471C



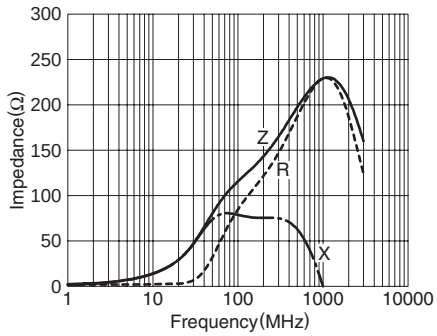
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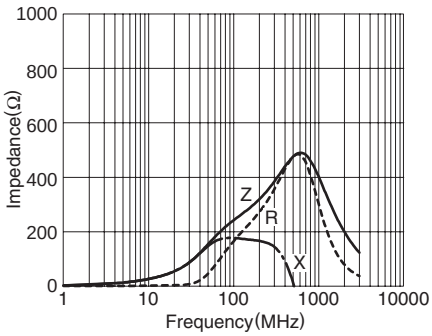
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

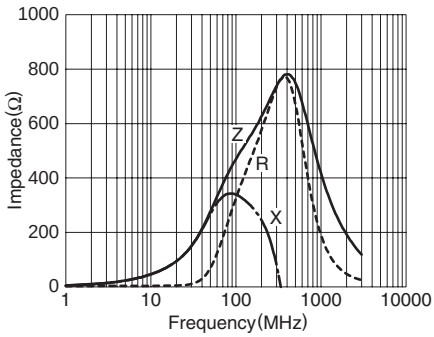
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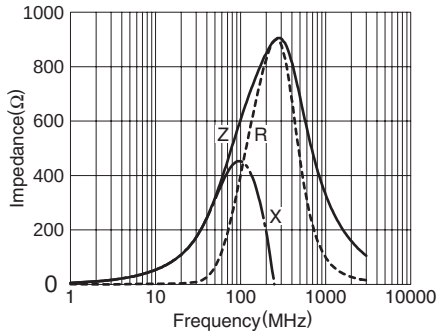
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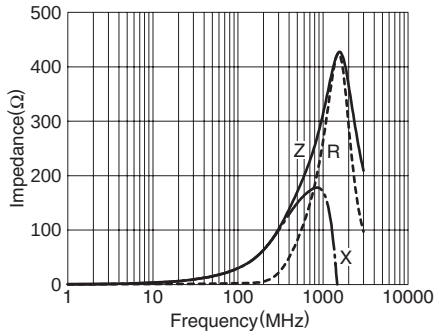
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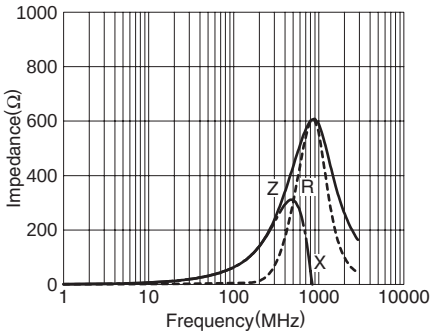
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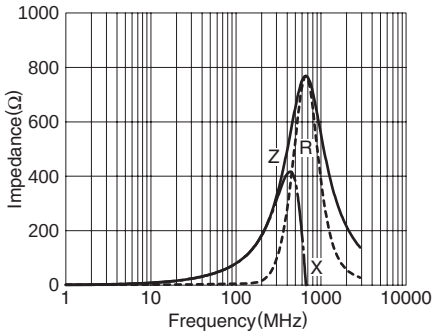
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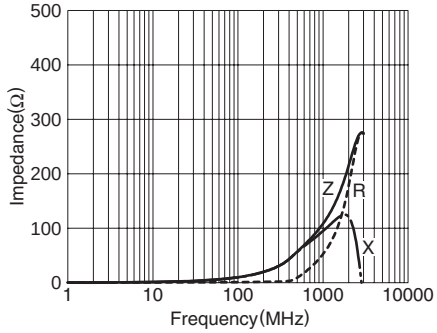
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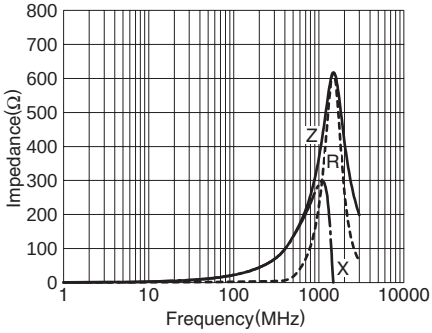
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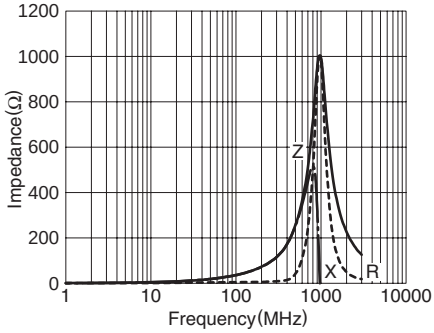
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MMZ0603F220C

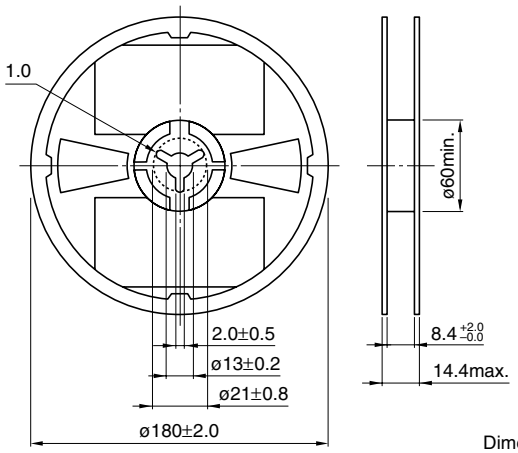


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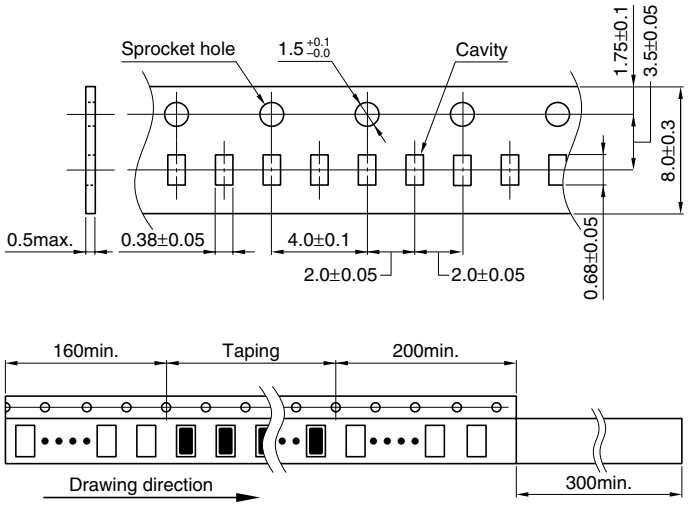
PACKAGING STYLES

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm