

# Chip Beads(SMD) For Signal Line

Conformity to RoHS Directive

## MMZ Series MMZ1005-E Type

### FEATURES

- Compared with the existing MMZ1005 type, this new product has broad-band impedance values for higher frequency ranges.
- Size standardized for use by automatic assembly equipment. No preferred orientation.
- Electroplated terminal electrodes accommodate reflow soldering.
- High reliability due to an entirely monolithic structure.
- Closed magnetic circuit structure allows high-density installation while preventing crosstalk between circuits.
- Low DC resistance structure of electrode prevents wasteful electric power consumption.
- It is a product conforming to RoHS directive.

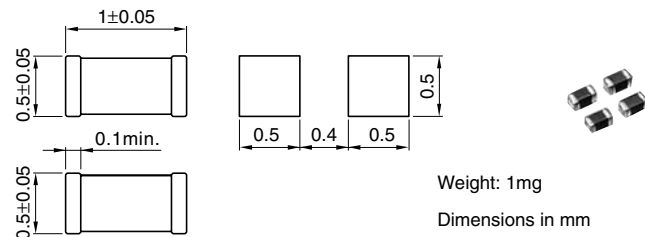
### APPLICATIONS

Removal of signal 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.

### TEMPERATURE RANGES

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

### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



### ELECTRICAL CHARACTERISTICS

| Part No.     | Impedance( $\Omega$ )* |                | DC resistance ( $\Omega$ )max. | Rated current (mA)max. |
|--------------|------------------------|----------------|--------------------------------|------------------------|
|              | [100MHz]               | [1GHz]         |                                |                        |
| MMZ1005S601E | 600 $\pm$ 25%          | 1000 $\pm$ 40% | 0.70                           | 300                    |
| MMZ1005S102E | 1000 $\pm$ 25%         | 1400 $\pm$ 40% | 1.10                           | 250                    |
| MMZ1005S182E | 1800 $\pm$ 25%         | 1800 $\pm$ 40% | 1.65                           | 200                    |
| MMZ1005A601E | 600 $\pm$ 25%          | 1400 $\pm$ 40% | 0.85                           | 300                    |
| MMZ1005A102E | 1000 $\pm$ 25%         | 2000 $\pm$ 40% | 1.25                           | 250                    |
| MMZ1005A152E | 1500 $\pm$ 25%         | 2300 $\pm$ 40% | 1.70                           | 230                    |
| MMZ1005A182E | 1800 $\pm$ 25%         | 2700 $\pm$ 40% | 2.20                           | 200                    |
| MMZ1005A222E | 2200 $\pm$ 25%         | 3000 $\pm$ 40% | 2.30                           | 150                    |
| MMZ1005D121E | 120 $\pm$ 25%          | 1000 $\pm$ 40% | 0.70                           | 300                    |
| MMZ1005D221E | 220 $\pm$ 25%          | 1700 $\pm$ 40% | 1.00                           | 250                    |
| MMZ1005F470E | 47 $\pm$ 25%           | 800 $\pm$ 40%  | 0.70                           | 300                    |
| MMZ1005F750E | 75 $\pm$ 25%           | 1500 $\pm$ 40% | 1.00                           | 250                    |
| MMZ1005F121E | 120 $\pm$ 25%          | 2300 $\pm$ 40% | 1.50                           | 200                    |

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

- 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.

### PRODUCT IDENTIFICATION

|     |      |     |     |     |     |
|-----|------|-----|-----|-----|-----|
| MMZ | 1005 | S   | 601 | E   | T   |
| (1) | (2)  | (3) | (4) | (5) | (6) |

- (1) Series name
- (2) Dimensions L×W
- (3) Material code
- (4) Nominal impedance  
601:600 $\Omega$  at 100MHz
- (5) Characteristic type
- (6) Packaging style  
T:Taping

### PACKAGING STYLE AND QUANTITIES

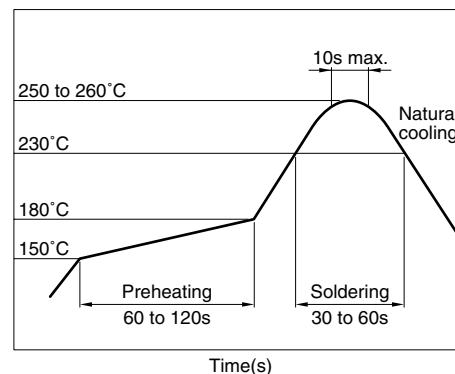
| Packaging style | Quantity          |
|-----------------|-------------------|
| Taping          | 10000 pieces/reel |

### 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.
- 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.

### RECOMMENDED SOLDERING CONDITION

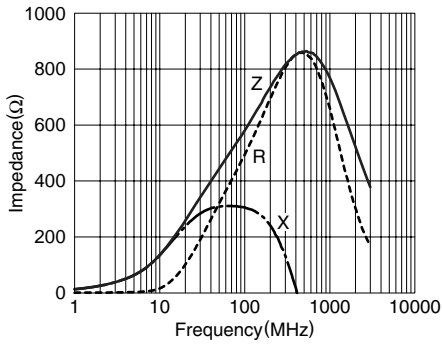
#### REFLOW SOLDERING



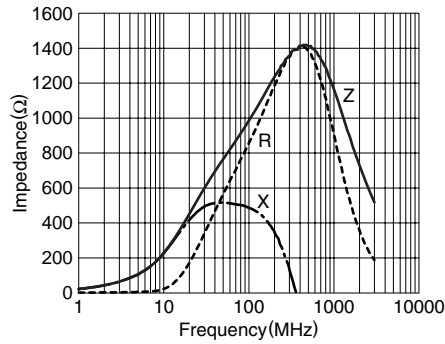
### TYPICAL ELECTRICAL CHARACTERISTICS

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

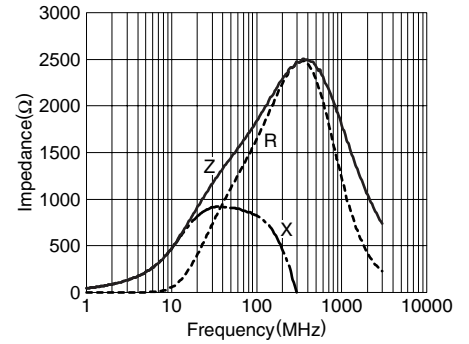
**MMZ1005S601E**



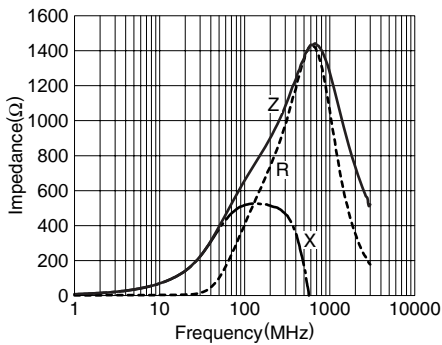
**MMZ1005S102E**



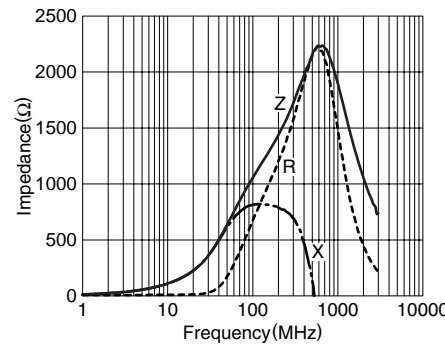
**MMZ1005S182E**



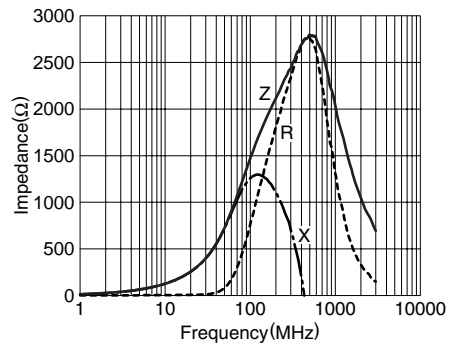
**MMZ1005A601E**



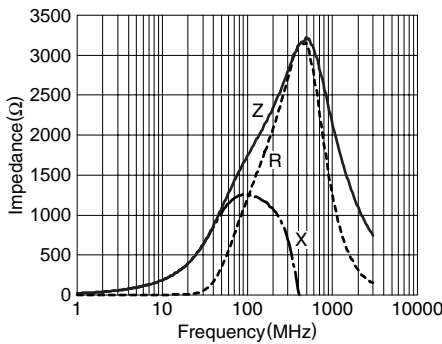
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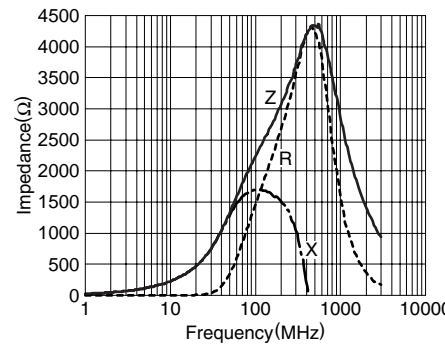
**MMZ1005A152E**



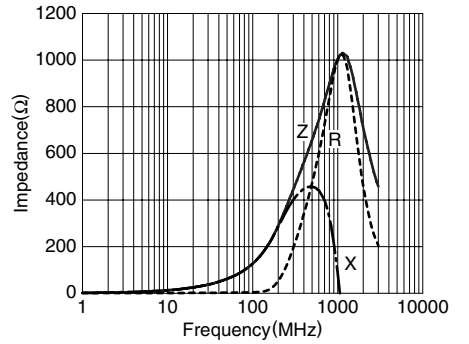
**MMZ1005A182E**



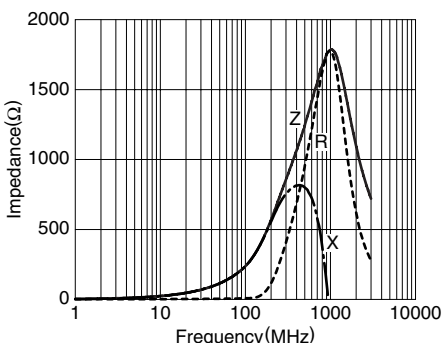
**MMZ1005A222E**



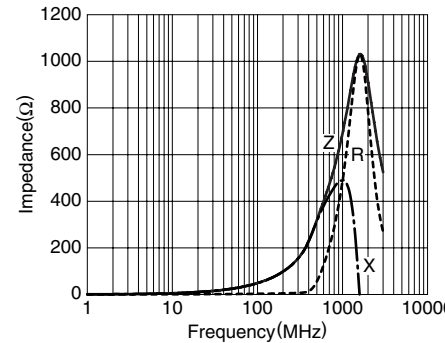
**MMZ1005D121E**



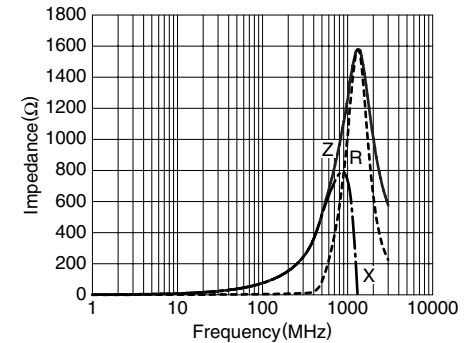
**MMZ1005D221E**



**MMZ1005F470E**

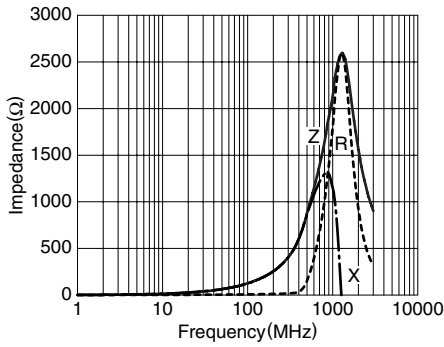


**MMZ1005F750E**

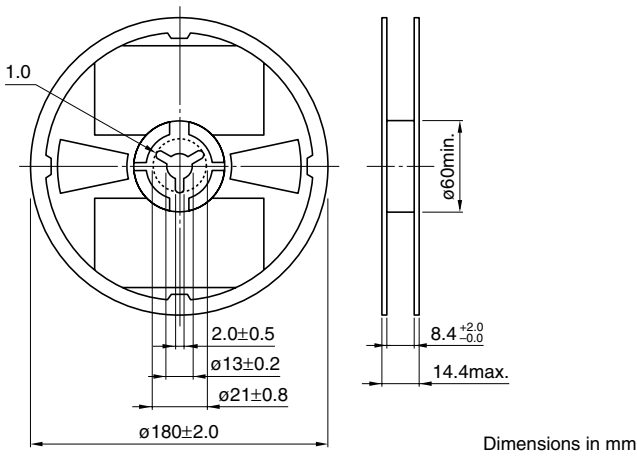


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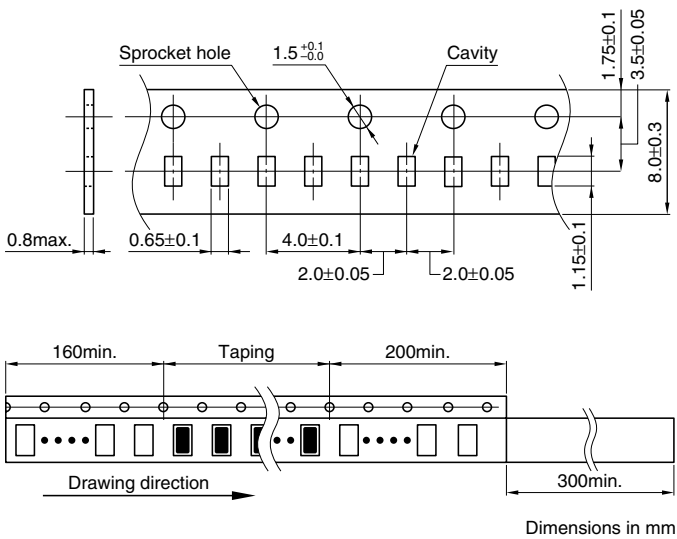
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**Z, X, R vs. FREQUENCY CHARACTERISTICS**  
**MMZ1005F121E**



**PACKAGING STYLES**  
**REEL DIMENSIONS**



**TAPE DIMENSIONS**



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