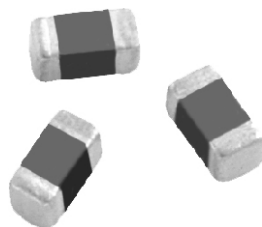


## Multilayer Ferrite Beads



### MECHANICAL SPECIFICATIONS

**Solderability:** 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C to 150 °C and type R flux dip

**Resistance to Solder Heat:** 10 s in 260 °C solder, after preheat and flux per above

**Terminal Strength:** 0.3 kg (0.66 lbs) minimum for 30 s

**Beam Strength:** 0.3 kg (0.66 lbs) minimum

### STANDARD ELECTRICAL SPECIFICATIONS

| Z<br>± 25 % AT 100 MHz<br>(Ω) | DCR<br>MAX.<br>(Ω) | RATED<br>DC CURRENT<br>(mA) |
|-------------------------------|--------------------|-----------------------------|
| 10                            | 0.05               | 500                         |
| 30                            | 0.09               | 500                         |
| 40                            | 0.10               | 400                         |
| 60                            | 0.10               | 400                         |
| 68                            | 0.10               | 200                         |
| 80                            | 0.20               | 150                         |
| 120                           | 0.20               | 150                         |
| 150                           | 0.30               | 150                         |
| 180                           | 0.30               | 150                         |
| 220                           | 0.30               | 150                         |
| 300                           | 0.35               | 150                         |
| 420                           | 0.40               | 150                         |
| 450                           | 0.40               | 100                         |
| 600                           | 0.45               | 100                         |
| 750                           | 0.60               | 100                         |
| 1000                          | 0.60               | 100                         |
| 1500                          | 0.70               | 50                          |
| 2000                          | 0.80               | 50                          |

### FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
**HALOGEN**  
**FREE**

### ENVIRONMENTAL SPECIFICATIONS

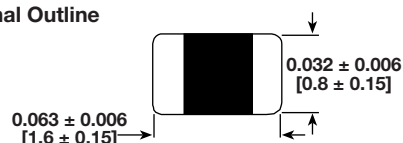
**Operating Temperature:** - 55 °C to + 125 °C

**Thermal Shock:** 100 cycles, - 40 °C to + 125 °C

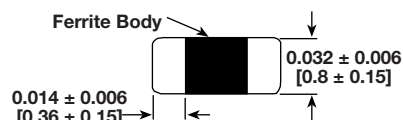
**Biased Humidity:** 85 % RH at 85 °C, 1000 h at full rated current

### DIMENSIONS in inches [millimeters]

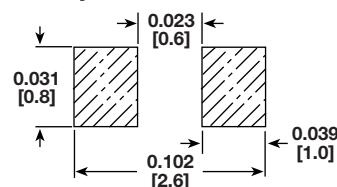
#### Dimensional Outline



#### Ferrite Body



#### Recommended Pad Layout



### PACKAGING OPTIONS

- Tape and Reel: Embossed plastic carrier tape per EIA481-1, 4000 pieces on a 7" [178 mm] reel

### DESCRIPTION

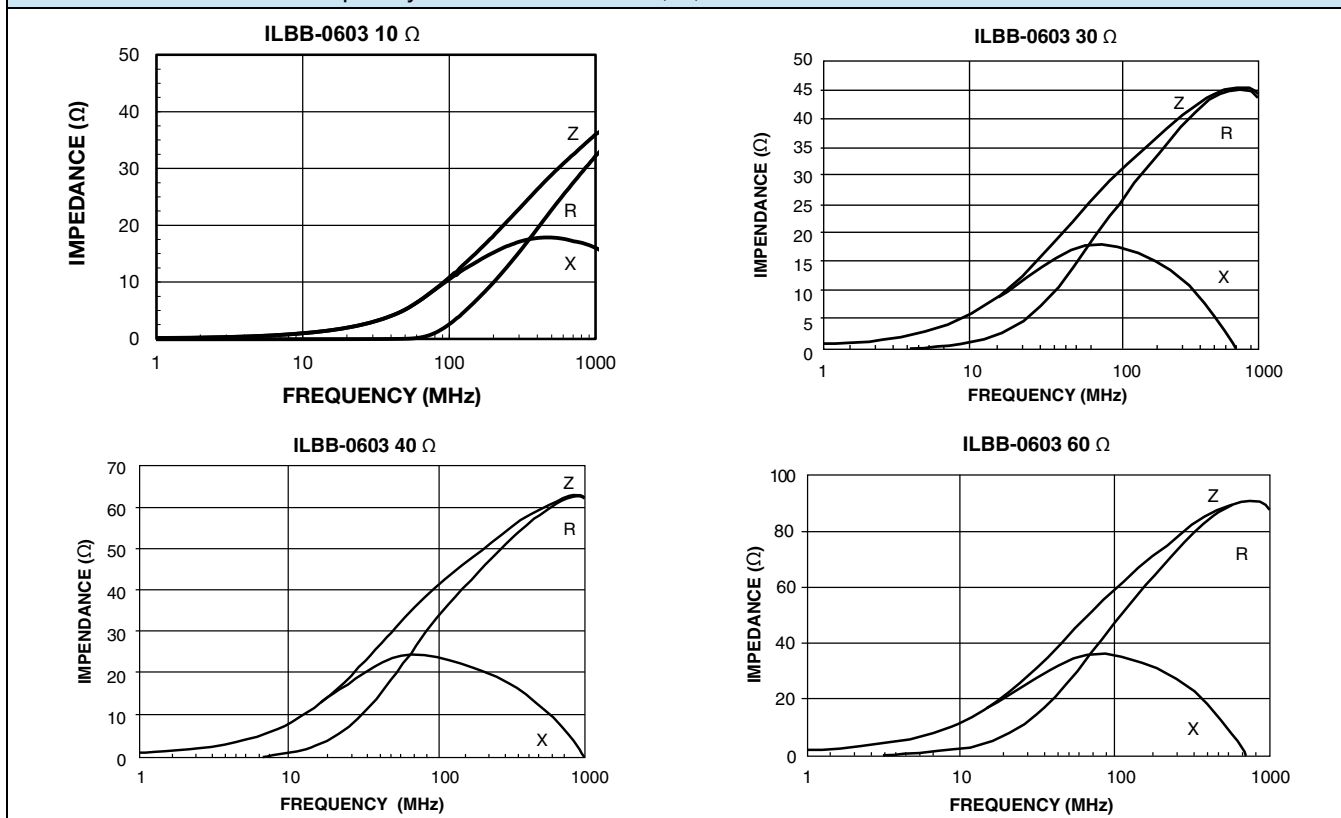
| ILBB-0603 | 30              | ± 25 %              | ER           | e3                            |
|-----------|-----------------|---------------------|--------------|-------------------------------|
| MODEL     | IMPEDANCE VALUE | IMPEDANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

### GLOBAL PART NUMBER

|                |   |   |   |      |   |   |   |              |   |                 |   |   |                     |
|----------------|---|---|---|------|---|---|---|--------------|---|-----------------|---|---|---------------------|
| I              | L | B | B | 0    | 6 | 0 | 3 | E            | R | 3               | 0 | 0 | V                   |
| PRODUCT FAMILY |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | IMPEDANCE VALUE |   |   | IMPEDANCE TOLERANCE |

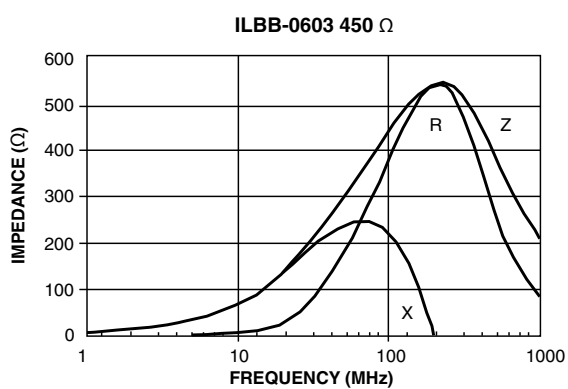
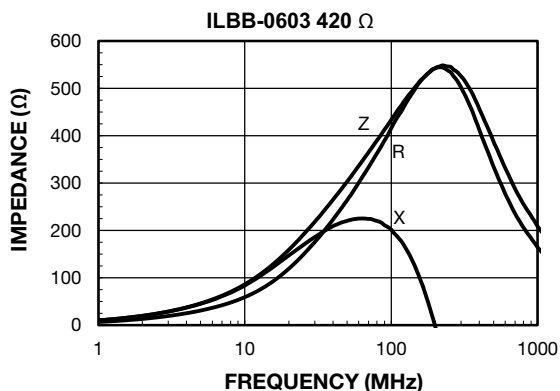
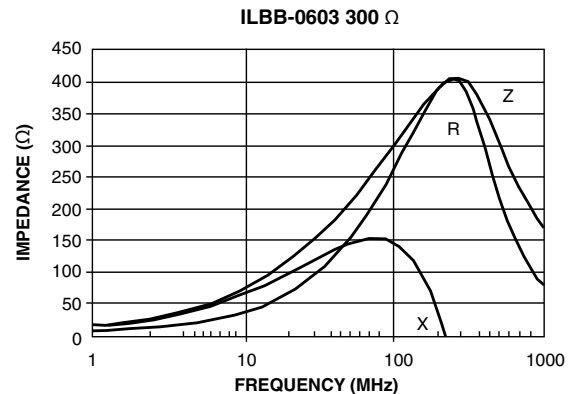
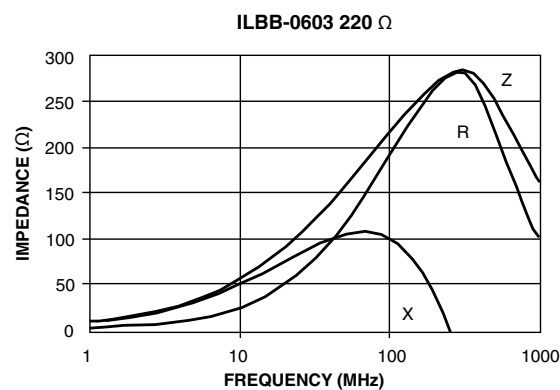
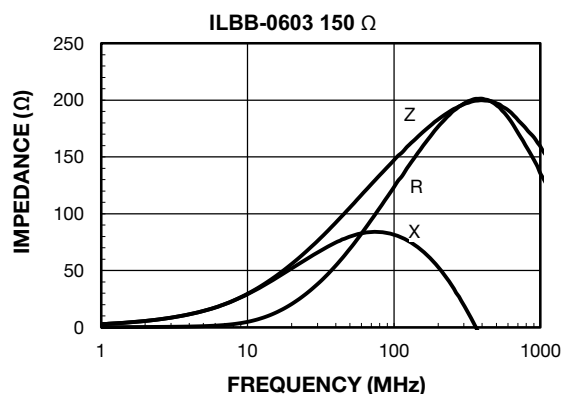
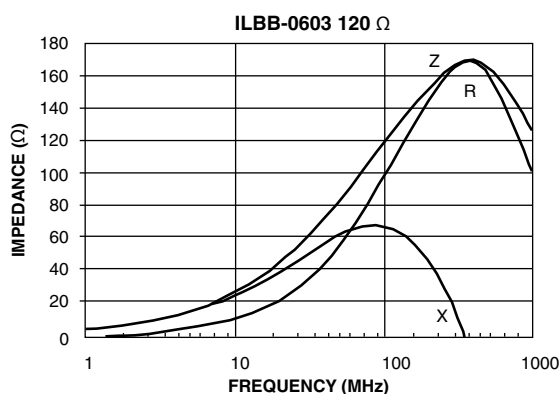
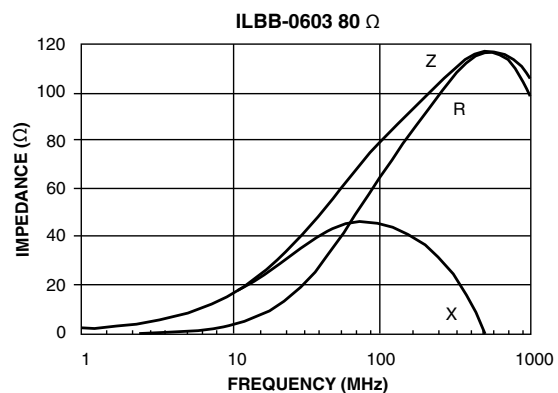
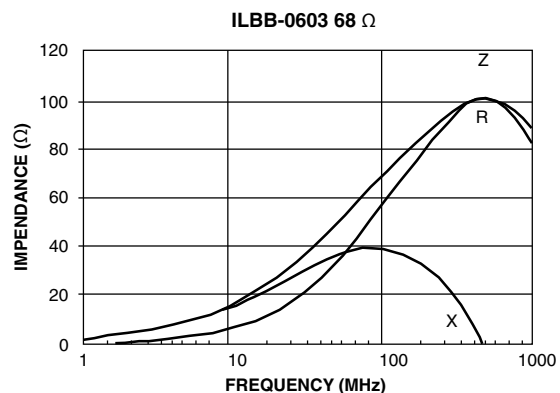
**TAPE AND REEL SPECIFICATIONS 0603 SIZE PER EIA-481-1 in inches [millimeters]**

|  |       |                                                 |
|--|-------|-------------------------------------------------|
|  | $A_0$ | $0.045 \pm 0.004$ [1.14 $\pm$ 0.1]              |
|  | $B_0$ | $0.071 \pm 0.008$ [1.80 $\pm$ 0.2]              |
|  | $D_0$ | $0.059 + 0.004/-0.000$ [1.5 + 0.1/- 0.0]        |
|  | $D_1$ | 0.039 min. [1.0 min.]                           |
|  | $E_1$ | $0.069 \pm 0.004$ [1.75 $\pm$ 0.1]              |
|  | $F$   | $0.138 \pm 0.002$ [3.50 $\pm$ 0.05]             |
|  | $K_0$ | $0.045 \pm 0.002$ [1.15 $\pm$ 0.05]             |
|  | $P_0$ | $0.157 \pm 0.004$ [4.00 $\pm$ 0.1]              |
|  | $P_1$ | $0.157 \pm 0.004$ [4.00 $\pm$ 0.1]              |
|  | $P_2$ | $0.079 \pm 0.002$ [2.00 $\pm$ 0.05]             |
|  | $W$   | 0.327 max. [8.3 max.]                           |
|  | $T$   | $0.008 \pm 0.002$ [0.2 $\pm$ 0.05]              |
|  | $A$   | $7.000 \pm 0.079$ [178 $\pm$ 2.0]               |
|  | $N$   | 2.500 [63.5] min.                               |
|  | $C$   | $0.51 \pm 0.020/-0.008$ [13.00 $\pm$ 0.5/- 0.5] |
|  | $W_1$ | $0.315 + 0.059/-0.000$ [8.00 + 1.5/- 0.0]       |
|  | $T_1$ | $0.079 \pm 0.002$ [2.00 $\pm$ 0.05]             |

**TYPICAL CURVES - Frequency Characteristics of R, X, and Z**


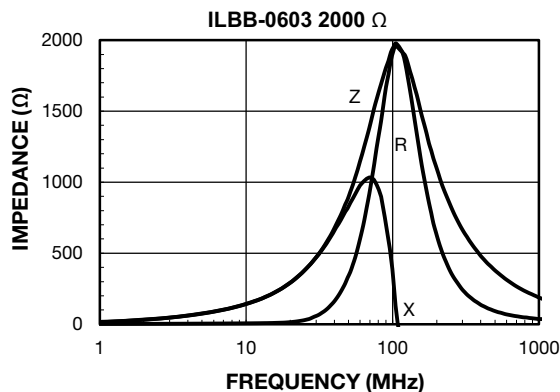
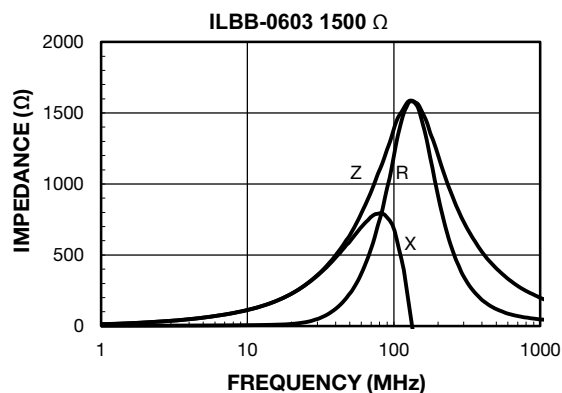
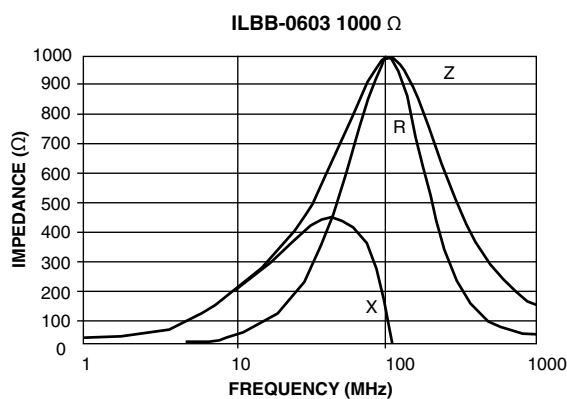
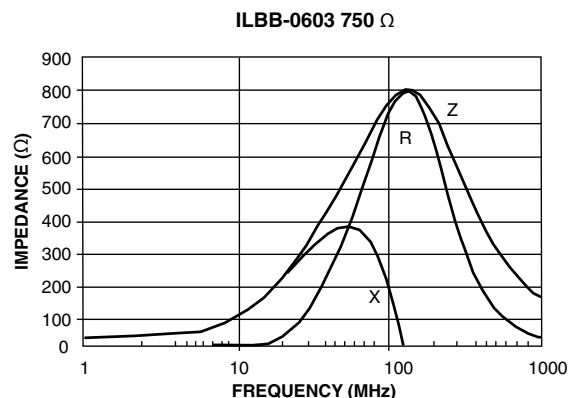
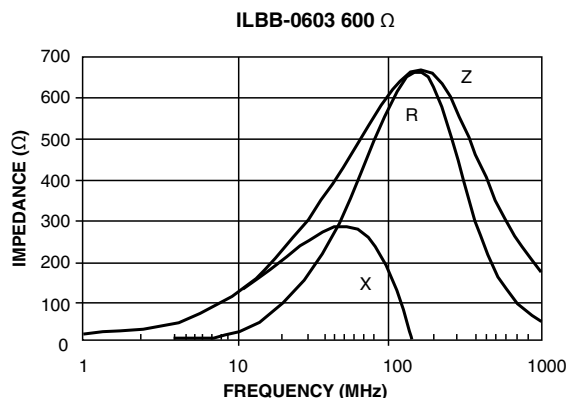


**TYPICAL CURVES** - Frequency Characteristics of R, X, and Z





**TYPICAL CURVES** - Frequency Characteristics of R, X, and Z





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