

## 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 ± 25 % AT 100 MHz (Ω)	DCR MAX. (Ω)	RATED DC CURRENT (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

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

### GLOBAL PART NUMBER

<b>I</b>	<b>L</b>	<b>B</b>	<b>B</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>E</b>	<b>R</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>V</b>
PRODUCT FAMILY				SIZE				PACKAGE CODE		IMPEDANCE VALUE			IMPEDANCE TOLERANCE

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



A <sub>0</sub>	0.045 ± 0.004 [1.14 ± 0.1]
B <sub>0</sub>	0.071 ± 0.008 [1.80 ± 0.2]
D <sub>0</sub>	0.059 + 0.004/- 0.000 [1.5 + 0.1/- 0.0]
D <sub>1</sub>	0.039 min. [1.0 min.]
E <sub>1</sub>	0.069 ± 0.004 [1.75 ± 0.1]
F	0.138 ± 0.002 [3.50 ± 0.05]
K <sub>0</sub>	0.045 ± 0.002 [1.15 ± 0.05]
P <sub>0</sub>	0.157 ± 0.004 [4.00 ± 0.1]
P <sub>1</sub>	0.157 ± 0.004 [4.00 ± 0.1]
P <sub>2</sub>	0.079 ± 0.002 [2.00 ± 0.05]
W	0.327 max. [8.3 max.]
T	0.008 ± 0.002 [0.2 ± 0.05]
A	7.000 ± 0.079 [178 ± 2.0]
N	2.500 [63.5] min.
C	0.51 ± 0.020/- 0.008 [13.00 ± 0.5/- 0.5]
W <sub>1</sub>	0.315 + 0.059/- 0.000 [8.00 + 1.5/- 0.0]
T <sub>1</sub>	0.079 ± 0.002 [2.00 ± 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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