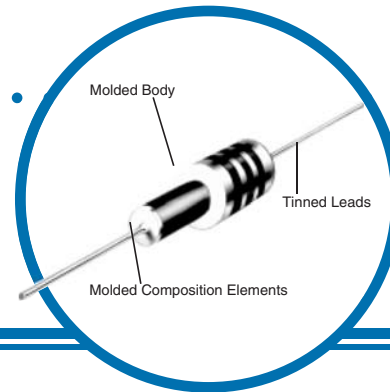


IBT Series

Carbon Composition Resistor



- Meets performance standards of EIA RS-172
- Hot molded process for product uniformity
- Ideal for pulse-loaded handling
- Non-inductive design



Electrical Data

Tested Per MIL-STD-202			
	IBT 1/4	IBT 1/2	IBT 1
Power Rating Determined by load life test 100% load @ 70°C ambient	1/4W	1/2W	1W
Rated Continuous Working Voltage (RCWV)	P x R or 250 volts whichever is less	P x R or 350 volts whichever is less	P x R or 500 volts whichever is less
Maximum Ambient Temperature Resistors derated to zero load at this temperature	±130°C	±130°C	±130°C
Nominal Resistance Range	1Ω - 5.6 megΩ	1Ω - 20 megΩ	2.2Ω - 1 megΩ
Standard Resistance Tolerances	±5%, ±10%	±5%, ±10%	±10%
Dielectric Withstand Voltage Atmospheric Pressure Barometric pressure 3.4" Hg 115 millibars	500V 325V	700V 450V	1000V 650V
Insulation Resistance (min.)	10,000 meg	10,000 meg	10,000 meg
Voltage Coefficient of Resistance % resistance change/volt at 10% and (min.) 100% RCWV for values 1K to 20 meg (max.)	-0.005% -0.032%	-0.005% -0.032%	-0.005% -0.032%
Short-Time Overload Apply 2.5 times RCWV at maximum Indicated for 5 seconds	Maximum Voltage Typical resistance change Maximum resistance change	700V ±0.5% ±2%	700V ±0.5% ±2%

General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

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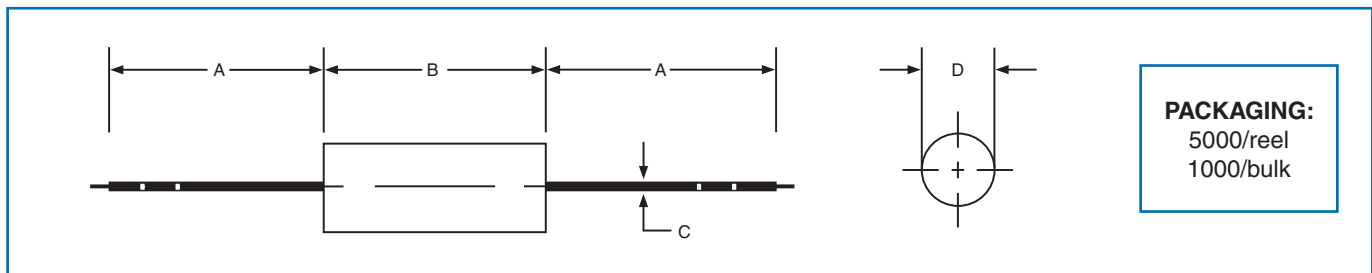
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Resistance Temperature Characteristics

	Resistance Range	-55°C	-105°C
Maximum percent resistance change from room temperature (+25°C) value	under 1K	+2.0 to +5.0	-4.0 to -2.0
	1K to 9.1 K	+5.0 to +9.0	-5.0 to -3.0
	10K to 91K	+8.0 to +11.0	-7.0 to -5.0
	100K to 910K	+10.0 to +14.0	-9.0 to -7.0
	1 meg to 10 meg	13.0 to +20.0	-14.0 to -9.0

Physical Data



Dimensions (Inches and (mm))

IRC Type	A	B	C	D
IBT 1/4	1.18 ± 0.12 (30.00 ± 3.0)	0.248 ± 0.028 (6.3 ± 0.70)	0.024 ± 0.002 (0.60 ± 0.05)	0.094 ± 0.004 (2.40 ± 0.10)
IBT 1/2	1.1 ± 0.12 (28.00 ± 3.0)	0.374 + 0.032 / -0.028 (9.50 + 0.80 / -0.70)	0.0275 ± 0.002 (0.70 ± 0.05)	0.142 ± 0.008 (3.6 ± 0.20)
IBT 1	1.02 ± 0.12 (26.00 ± 3.0)	0.56 ± 0.03 (14.3 ± 0.7)	0.04 ± 0.002 (0.9 ± 0.05)	0.22 ± 0.01 (5.7 ± 0.3)

Ordering Data

Sample Part No. **IBT1** **203** **J** **LF** **LTR**

IRC Type
 (IBT1/4, IBT1/2, or IBT1)

Resistance Value
 (First two significant figures plus third digit multiplier)
 Example: 223 = 22 KΩ
 510 = 51 Ω
 2R0 = 2.0 Ω

Tolerance
 J = ±5.0% K = ±10%

LF
 Provides clear "Lead Free" Designation

Packaging Type
 Lead Tape = LTR Bulk = Blank