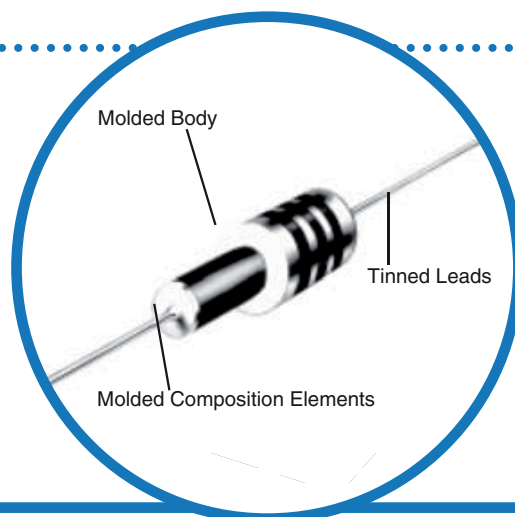


# Carbon Composition Resistor

## IBT Series

- 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
<b>Power Rating</b> Determined by load life test 100% load @ 70°C ambient	1/4W	1/2W	1W
<b>Rated Continuous Working Voltage (RCWV)</b>	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
<b>Maximum Ambient Temperature</b> Resistors derated to zero load at this temperature	±130°C	±130°C	±130°C
<b>Nominal Resistance Range</b>	1Ω - 5.6 megΩ	1Ω - 20 megΩ	2.2Ω - 1 megΩ
<b>Standard Resistance Tolerances</b>	±5%, ±10%	±5%, ±10%	±10%
<b>Dielectric Withstand Voltage</b> <b>Atmospheric Pressure</b> <b>Barometric pressure 3.4" Hg 115 millibars</b>	500V 325V	700V 450V	1000V 650V
<b>Insulation Resistance</b> (min.)	10,000 meg	10,000 meg	10,000 meg
<b>Voltage Coefficient of Resistance</b> % 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%
<b>Short-Time Overload</b> Apply 2.5 times RCWV at maximum Indicated for 5 seconds	<b>Maximum Voltage</b> <b>Typical resistance change</b> <b>Maximum resistance change</b>	700V ±0.5% ±2%	700V ±0.5% ±2%

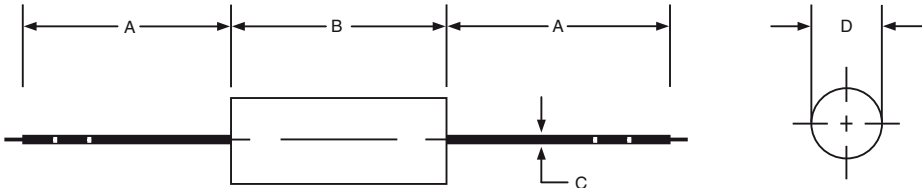
### General Note

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

## 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

 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto;"> <b>PACKAGING:</b>  5000/reel  1000/bulk </div>				
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
<b>IRC Type</b> .....					
(IBT1/4, IBT1/2, or IBT1)					
<b>Resistance Value</b> .....					
(First two significant figures plus third digit multiplier)					
Example: 223 = 22 KΩ					
510 = 51 Ω					
2R0 = 2.0 Ω					
<b>Tolerance</b> .....					
J = ±5.0% K = ±10%					
<b>LF</b> .....					
Provides clear "Lead Free" Designation					
<b>Packaging Type</b> .....					
Lead Tape = LTR Bulk = Blank					

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