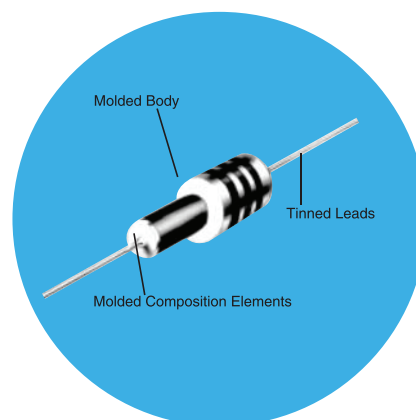



Carbon Composition Resistor

IBT Series

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



 All parts are Pb-free and comply with EU Directive 2011/65/EU (RoHS2)

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%

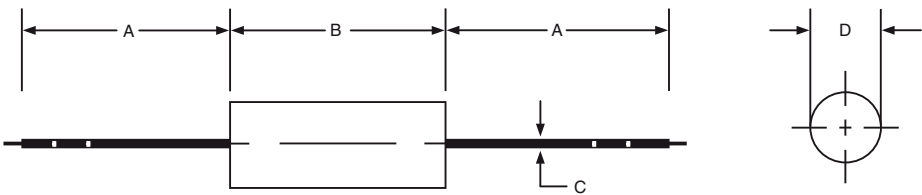
General Note

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 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></div> <div>PACKAGING: 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)

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Ordering Data

European (Welwyn) Part Number: IBT1-20KJI (IBT1, 20 kilohms $\pm 5\%$, Pb-free)

I	B	T	1		-	2	0	K	J	I
1						2		3	4	

1 Type	2 Value	3 Tolerance	4 Packing & Termination Finish	
IBT1/4	3/4 characters	J = $\pm 5\%$	I = Tape Pack & Pb-free	
IBT1/2	R = ohms	K = $\pm 10\%$	All sizes	Taped, 5000/reel
IBT1	K = kilohms M = megohms			

USA (IRC) Part Number: IBT1203JLFLTR (IBT1, 20 kilohms $\pm 5\%$, Pb-free)

I	B	T	1		2	0	3	J	L	F	L	T	R
1					2		3	4		5			

1 Type	2 Value	3 Tolerance	4 Termination Finish	5 Packing	
IBT1/4	2 digits + multiplier	J = $\pm 5\%$	LF = Pb-free	LTR = Lead Tape Omit for Bulk Pack	
IBT1/2	R = ohms for values <10 ohms	K = $\pm 10\%$		All sizes	5000/reel 1000/bulk

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