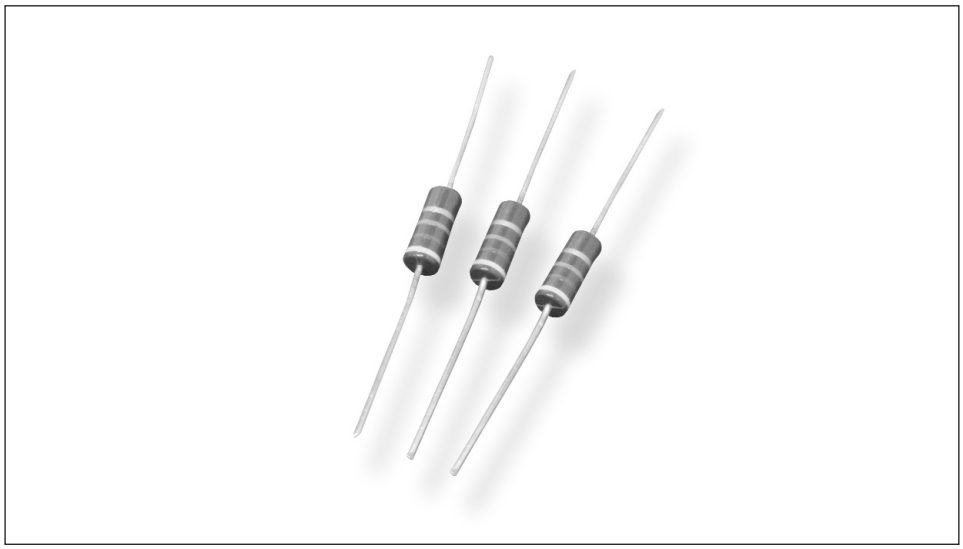
Type CBT Series

Key Features

- Designed for Pulse Withstand
- Range of Resistance Tolerances
- Solid Carbon Composition
- Low Cost, High Performance
- Two Sizes Available
- Wide Range of Resistance Values
- Supplied Ammo Pack in boxes of 2000



The CBT series of resistors is constructed utilising solid carbon composition, which is the traditional medium for absorbing high energy pulses, in cases of high inrush current. These resistors have evolved over many years to have excellent pulse withstand capabilities, whilst remaining very stable. These improved characteristics have been achieved by prudent selection of materials of optimum physical properties and by advances in the manufacturing process.

Characteristics - Electrical

	CBT25	CBT50
Power at 70°C Ambient:	0.25 Watts Derating to 0 at +125°C	0.5 Watts Derating to 0 at +125°C
Maximum Voltage:	250 Volts	350 Volts
Resistance Range:	1R0 - 5M6	1R0 - 22M
Resistance Values:	5% E24 Series 10% E12 Series	20% E6 Series
Voltage Coefficient:	± 0.035%/V	± 0.035%/V
Limiting Element Voltage:	250 Volts	350 Volts
Maximum Overload Voltage:	400 Volts	700 Volts
Insulation Resistance:	1000 M minimum	

Characteristics - Environmental

Operating Temperature Range:	-55°C to +125°C
Temperature Cycles: (-55°C to +125°C, 5 cycles)	ΔR/R ± 2%
Load Life (1000 hours at 70°C):	ΔR/R ± 10%
Resistance to Solder Heat: (350°C for 3 seconds)	ΔR/R ± 3%
Short Time Overload: (2.5 x Rated Power for 5 seconds)	ΔR/R ± 2%
Humidity (40°C, 95%RH, 240 hrs):	ΔR/R ± 3%

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

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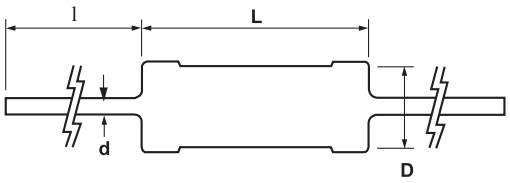
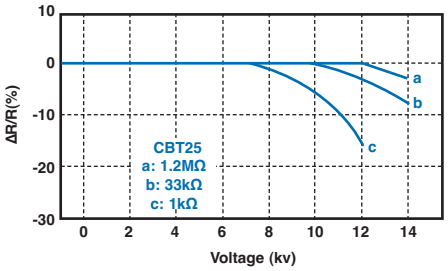
Dimensions

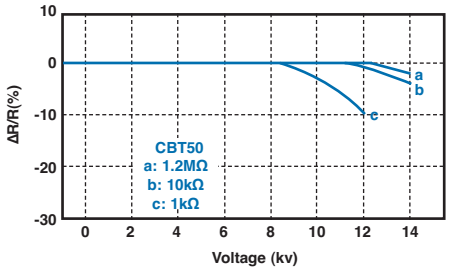


Style	L	D	l	d
CBT25	6.3 ± 0.7	2.4 ± 0.1	27 min.	0.6
CBT50	9.5±0.8	3.6±0.2	25 min.	0.7

Pulse Withstand Characteristics

Charging and Discharging a 2000 pF Capacitor for 100 Cycles





How to Order

CBT	25	J	10K
Common Part	**Size**	**Tolerance**	**Resistance Value**
Carbon Composition Resistor	25 - 0.25W 50 - 0.5W	J - ±5% K - ±10% M - ±20%	1 ohm (1 ohm) 1R0 1K ohm (1000 ohms) 1K 100K ohm (100000 ohms) 100K 1M ohm (1000000 ohms) 1M

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