imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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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% E1	2 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)	$\Delta R/R \pm 3\%$	
Short Time Overload: (2.5 x Rated Power for 5 seconds)	$\Delta R/R \pm 2\%$	
Humidity (40°C, 95%RH, 240 hrs):	ΔR/R ± 3%	



Carbon Composition Resistors

Type CBT Series

Dimensions



Style	L	D	I	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

СВТ	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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