

CB/MCB Series

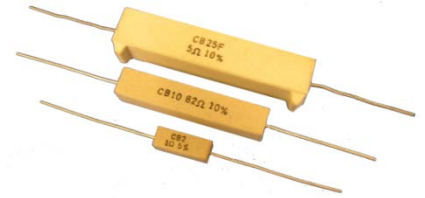
Ceramic Housed with Axial Leads Power Resistor

Stackpole Electronics, Inc.

Resistive Product Solutions

Features:

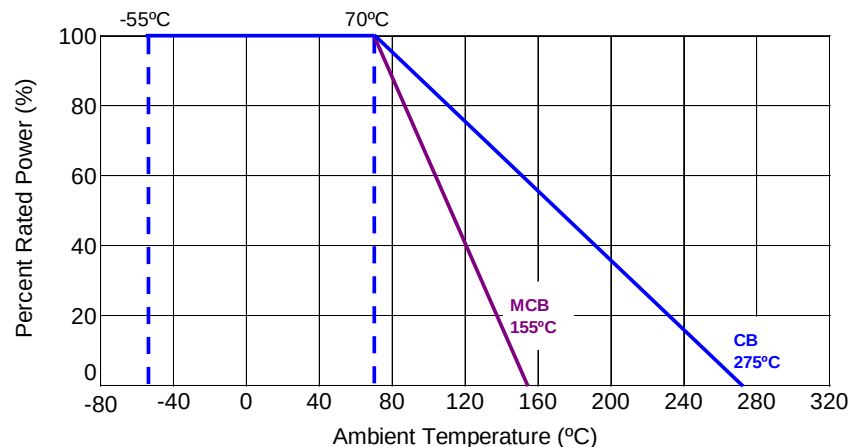
- Fireproof power resistor
- High thermal conductivity
- "M" in MCB stands for Metal Oxide element
- Standoffs may be available (CBF, MCBF). Contact factory for details.
- RoHS compliant / lead-free



Electrical Specifications						
Type/Code	Power Rating (Watts)@70°C	Maximum Working Voltage (V)	Maximum Overload Voltage (V)	TCR (ppm/°C) (*)	Ohmic Range (Ω) and Tolerance	
					5%	10%
CB2	2W	250	500	± 800 ppm/°C	0.056 - 0.1	0.056 - 0.1
				± 500 ppm/°C	0.12 - 0.2	0.12 - 0.2
				± 200 ppm/°C	0.22 - 100	0.22 - 100
CB3	3W	300	600	± 800 ppm/°C	0.1	0.1
				± 500 ppm/°C	0.12 - 3	0.12 - 3
				± 200 ppm/°C	3.3 - 100	3.3 - 100
CB5	5W	350	700	± 800 ppm/°C	0.1 - 0.15	0.1 - 0.15
				± 500 ppm/°C	0.18 - 0.68	0.18 - 0.68
				± 200 ppm/°C	0.75 - 470	0.75 - 470
CB7	7W	500	1000	± 800 ppm/°C	0.39 - 0.51	0.39 - 0.51
				± 500 ppm/°C	0.56 - 0.82	0.56 - 0.82
				± 200 ppm/°C	0.91 - 470	0.91 - 470
CB10	10W	700	1400	± 800 ppm/°C	0.51 - 1	0.56 - 1
				± 500 ppm/°C	1.1 - 2.7	1.1 - 2.7
				± 200 ppm/°C	3 - 680	3 - 680
CB15	15W	700	1400	± 800 ppm/°C	0.56 - 1	0.56 - 1
				± 500 ppm/°C	1.3 - 3	1.3 - 3
				± 200 ppm/°C	3.6 - 820	3.6 - 820
MCB3	3W	300	600	± 200 ppm/°C	110 - 51K	110 - 51K
MCB5	5W	350	700	± 200 ppm/°C	110 - 51K	110 - 51K
MCB7	7W	500	1000	± 200 ppm/°C	510 - 51K	510 - 51K
MCB10	10W	700	1400	± 200 ppm/°C	750 - 51K	750 - 51K
MCB15	15W	700	1400	± 200 ppm/°C	910 - 51K	910 - 51K

(*) Lower TCR may be available for certain values. Contact factory.

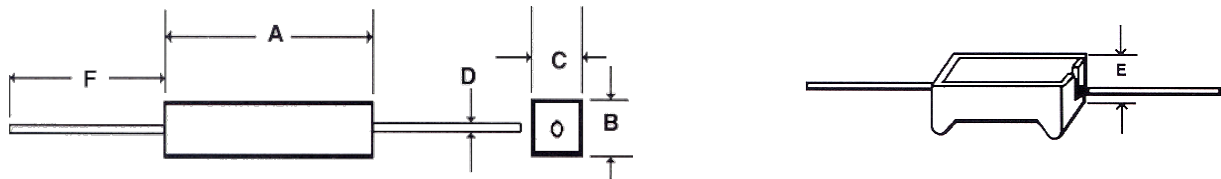
Power Derating Curve:



Performance Characteristics

Test	Test Results
Moisture Resistance	± 5%
Thermal Shock	± 2%
Load Life @ 70°C - 1,000 hrs.	± 5%
Resistance to Soldering Heat	± 2%
Short Time Overload - 5xPn for 5sec	± 2%
Dielectric Withstanding Voltage	± 2%

Operating Temperature Range: -55°C to +155°C for MCB, -55°C to +275°C for CB



Mechanical Specifications

Type / Code	A Body Length	B Height	C Width	D Lead Diameter	E (CBF, MCBF only)	F Lead Length	Unit
CB2	0.709 ± 0.047 18.00 ± 1.20	0.252 ± 0.047 6.40 ± 1.20	0.252 ± 0.047 6.40 ± 1.20	0.031 ± 0.004 0.80 ± 0.10	0.299 ± 0.039 7.60 ± 1.00	1.000 min. 25.40 min.	inches mm
CB3, MCB3	0.866 ± 0.047 22.00 ± 1.20	0.315 ± 0.047 8.00 ± 1.20	0.315 ± 0.047 8.00 ± 1.20	0.031 ± 0.004 0.80 ± 0.10	0.374 ± 0.039 9.50 ± 1.00	1.000 min. 25.40 min.	inches mm
CB5, MCB5	0.866 ± 0.047 22.00 ± 1.20	0.374 ± 0.039 9.50 ± 1.00	0.374 ± 0.039 9.50 ± 1.00	0.031 ± 0.004 0.80 ± 0.10	0.437 ± 0.039 11.10 ± 1.00	1.000 min. 25.40 min.	inches mm
CB7, MCB7	1.378 ± 0.059 35.00 ± 1.50	0.374 ± 0.039 9.50 ± 1.00	0.374 ± 0.039 9.50 ± 1.00	0.031 ± 0.004 0.80 ± 0.10	0.500 ± 0.039 12.70 ± 1.00	1.000 min. 25.40 min.	inches mm
CB10, MCB10	1.890 ± 0.059 48.00 ± 1.50	0.374 ± 0.039 9.50 ± 1.00	0.374 ± 0.039 9.50 ± 1.00	0.031 ± 0.004 0.80 ± 0.10	0.500 ± 0.039 12.70 ± 1.00	1.000 min. 25.40 min.	inches mm
CB15, MCB15	1.890 ± 0.059 48.00 ± 1.50	0.512 ± 0.047 13.00 ± 1.20	0.512 ± 0.047 13.00 ± 1.20	0.031 ± 0.004 0.80 ± 0.10	0.626 ± 0.039 15.90 ± 1.00	1.000 min. 25.40 min.	inches mm

How to Order

1	2	3	4	5	6	7	8	9	
C	B	2	J	B	1	0	0	R	
Product Series		Code	Power	Tolerance		Packaging		Resistance Value	
CB	Standard	2	2W	Code	Tol	Code	Description	Size	Quantity
MCB	Standard (Metal Oxide)	3	3W	J	5%	B	Bulk	CB2, CB5, MCB5	1500
CBF	With standoff	5	5W	K	10%			CB3, CB7, CB10, CB15, MCB3, MCB7, MCB10, MCB15	1000
MCBF	With standoff (Metal Oxide)	7	7W						
		10	10W						
		15	15W						
Resistance Value									Four characters with the multiplier used as the decimal holder. "L" used as multiplier of 10 ⁻³ for any value under 0.1 ohm
									0.056 ohm = 56L0
									0.1 ohm = R100
									33 ohm = 33R0
									3.32 Kohm = 3K32