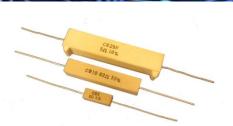
Stackpole Electronics, Inc.

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 and halogen free



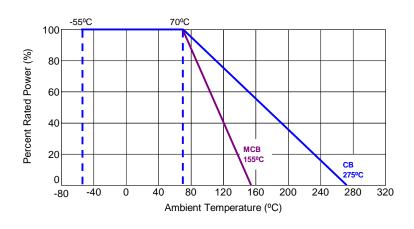
Electrical Specifications - CB						
Type / Code	Power Rating (Watts) @ 70 °C	Maximum Working Voltage (V)	Maximum Overload Voltage (V)	TCR (ppm/°C) (1)	Ohmic Range (Ω) and Tolerance	
					5%, 10%	
	2	250	500	± 800 ppm/°C	0.056 - 0.1	
CB2				± 500 ppm/°C	0.12 - 0.2	
				± 200 ppm/°C	0.22 - 100	
CB3	3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

⁽¹⁾ Lower TCR may be available for certain values. Contact factory.

Electrical Specifications - MCB						
Type / Code	Power Rating (Watts) @ 70 °C	Maximum Working Voltage (V)	Maximum Overload Voltage (V)	TCR (ppm/°C) (1)	Ohmic Range (Ω) and Tolerance	
					5%, 10%	
MCB3	3	300	600	± 200 ppm/°C	110 - 51 K	
MCB5	5	350	700	± 200 ppm/°C	110 - 51 K	
MCB7	7	500	1000	± 200 ppm/°C	510 - 51 K	
MCB10	10	700	1400	± 200 ppm/°C	750 - 51 K	
MCB15	15	700	1400	± 200 ppm/°C	910 - 51 K	

⁽¹⁾ Lower TCR may be available for certain values. Contact factory.

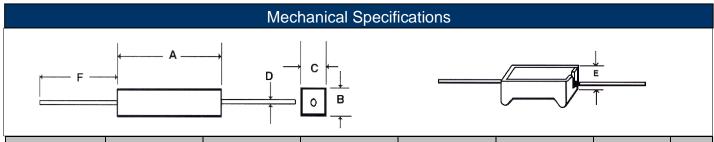
Power Derating Curve:



Resistive Product Solutions

Performance Characteristics						
Test	Test Specification					
Moisture Resistance	± 5%					
Thermal Shock	± 2%					
Load Life @ 70 °C - 1,000 hours	± 5%					
Resistance to Soldering Heat	± 2%					
Short Time Overload - 5 x Pn for 5 seconds	± 2%					
Dielectric Withstanding Voltage	± 2%					

Operating Temperature Range: -55 $^{\circ}$ C to +155 $^{\circ}$ C for MCB, -55 $^{\circ}$ C to +275 $^{\circ}$ C for CB



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	0.252 ± 0.047	0.252 ± 0.047	0.031 ± 0.004	0.299 ± 0.039	1.000 min.	inches
	18.00 ± 1.20	6.40 ± 1.20	6.40 ± 1.20	0.80 ± 0.10	7.60 ± 1.00	25.40 min.	mm
CB3, MCB3	0.866 ± 0.047	0.315 ± 0.047	0.315 ± 0.047	0.031 ± 0.004	0.374 ± 0.039	1.000 min.	inches
CD3, IVICD3	22.00 ± 1.20	8.00 ± 1.20	8.00 ± 1.20	0.80 ± 0.10	9.50 ± 1.00	25.40 min.	mm
CB5, MCB5	0.866 ± 0.047	0.374 ± 0.039	0.374 ± 0.039	0.031 ± 0.004	0.437 ± 0.039	1.000 min.	inches
CBS, MICBS	22.00 ± 1.20	9.50 ± 1.00	9.50 ± 1.00	0.80 ± 0.10	11.10 ± 1.00	25.40 min.	mm
CB7, MCB7	1.378 ± 0.059	0.374 ± 0.039	0.374 ± 0.039	0.031 ± 0.004	0.500 ± 0.039	1.000 min.	inches
CD1, IVICD1	35.00 ± 1.50	9.50 ± 1.00	9.50 ± 1.00	0.80 ± 0.10	12.70 ± 1.00	25.40 min.	mm
CB10, MCB10	1.890 ± 0.059	0.374 ± 0.039	0.374 ± 0.039	0.031 ± 0.004	0.500 ± 0.039	1.000 min.	inches
	48.00 ± 1.50	9.50 ± 1.00	9.50 ± 1.00	0.80 ± 0.10	12.70 ± 1.00	25.40 min.	mm
CB15, MCB15	1.890 ± 0.059	0.512 ± 0.047	0.512 ± 0.047	0.031 ± 0.004	0.626 ± 0.039	1.000 min.	inches
CD 13, MCD 13	48.00 ± 1.50	13.00 ± 1.20	13.00 ± 1.20	0.80 ± 0.10	15.90 ± 1.00	25.40 min.	mm

RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

	RoHS Compliance Status						
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)	
СВ	General Purpose Ceramic Housed with Axial Leads Wirewound Resistor	Axial	YES	100% Matte Sn	Jan-06	06/01	
МСВ	Ceramic Housed General Purpose Metal Oxide Element Resistor	Axial	YES	100% Matte Sn	Jan-06	06/01	

Stackpole Electronics, Inc.

Resistive Product Solutions

"Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

