

# CB Series

Ceramic Housed with Axial Leads Wirewound Resistor

Stackpole Electronics, Inc.

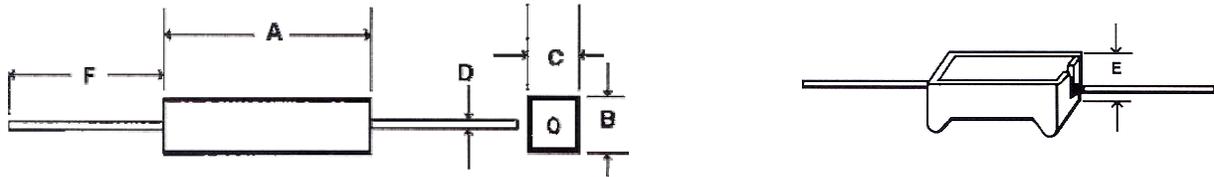
Resistive Product Solutions

**Features:**

- Fireproof power wirewound
- High thermal conductivity
- Non-inductive styles available
- Body standoffs available; add "F" after CB
- RoHS compliant / lead-free



Electrical Specifications						
Type / Code	Power Rating (Watts) @ 70°C	TCR (ppm/°C)	Ohmic Range(Ω) and Tolerance			
			0.5%	1%	5%	10%
CB2	2W	<1Ω = ±800ppm/°C ≥1Ω = ±300ppm/°C	-	-	0.1 - 300	0.1 - 300
CB3	3W		-	-	0.1 - 680	0.1 - 680
CB5	5W		-	-	0.1 - 680	0.1 - 680
CB7	7W		-	-	0.1 - 1.5K	0.1 - 1.5K
CB10	10W		-	-	0.1 - 2K	0.1 - 2K
CB15	15W		-	-	0.15 - 2K	0.15 - 2K
CB20	20W		-	-	0.2 - 2K	0.2 - 2K
CB22	22W		-	-	1 - 250	1 - 250
CB25	25W		-	-	0.2 - 2K	0.2 - 2K
CB30	30W		-	-	1 - 250	1 - 250
WCB2	2W		0.1Ω to 10Ω = ±50ppm/°C >10Ω = ±20ppm/°C	1 - 5K	0.1 - 5K	0.1 - 5K
WCB3	3W	1 - 10K		0.1 - 10K	0.1 - 10K	-
WCB5	5W	1 - 10K		0.1 - 10K	0.1 - 10K	-
WCB7	7W	1 - 15K		0.1 - 15K	0.1 - 15K	-
WCB10	10W	1 - 20K		0.1 - 20K	0.1 - 20K	-
WCB15	15W	1 - 20K		0.1 - 20K	0.1 - 20K	-
MCB3	3W	±200ppm/°C	-	-	1 - 500K	-
MCB5	5W		-	-	1 - 500K	-
MCB7	7W		-	-	1 - 500K	-

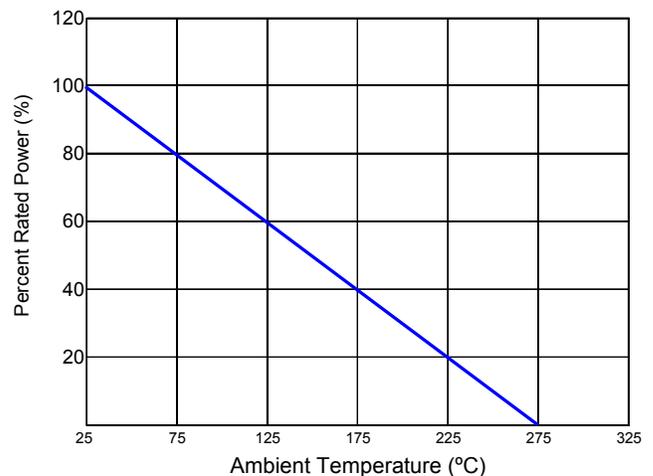


Mechanical Specifications							
Type / Code	A Body Length	B Height	C Width	D Lead Diameter	E Height with Standoff	F Lead Length	Unit
CB2, WCB2	0.700 ± 0.039 17.8 ± 1.0	0.245 ± 0.039 6.2 ± 1.0	0.255 ± 0.039 6.5 ± 1.0	0.032 ± 0.002 0.8 ± 0.1	0.300 ± 0.039 7.6 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB3, WCB3, MCB3	0.875 ± 0.039 22.2 ± 1.0	0.312 ± 0.039 7.9 ± 1.0	0.312 ± 0.039 7.9 ± 1.0	0.032 ± 0.002 0.8 ± 0.1	0.375 ± 0.039 9.5 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB5, WCB5, MCB5	0.875 ± 0.039 22.2 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.032 ± 0.002 0.8 ± 0.1	0.437 ± 0.039 11.1 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB7, WCB7, MCB7	1.400 ± 0.039 35.6 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.500 ± 0.039 12.7 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB10, WCB10	1.875 ± 0.039 47.6 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.375 ± 0.039 9.5 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.500 ± 0.039 12.7 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB15, WCB15	1.875 ± 0.039 47.6 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.625 ± 0.039 15.9 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB20	2.500 ± 0.039 63.5 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.625 ± 0.039 15.9 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB22	2.500 ± 0.039 63.5 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.625 ± 0.039 15.9 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB25	2.500 ± 0.039 63.5 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.500 ± 0.039 12.7 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	0.625 ± 0.039 15.9 ± 1.0	1.500 ± 0.250 38.1 ± 6.4	inches mm
CB30	2.500 ± 0.039 63.5 ± 1.0	0.625 ± 0.039 15.9 ± 1.0	0.625 ± 0.039 15.9 ± 1.0	0.036 ± 0.002 0.9 ± 0.1	-	1.500 ± 0.250 38.1 ± 6.4	inches mm

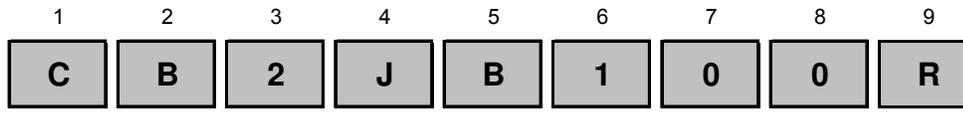
Performance Characteristics	
Test	Test Results
Moisture Resistance	± 5%
Thermal Shock	± 2%
Load Life @ 70°C - 1,000 hrs.	± 5%
Resistance to Soldering Heat	± 2%
Short Time Overload - 5xPn for 5sec	± 2%
Dielectric Withstanding Voltage	± 2%

Operating Temperature Range: -55°C to +275°C

Power Derating Curve:



## How to Order



Product Series		Series	Code	Power	Tolerance		Packaging			Resistance Value	
CB	Standard	CB	2	2W	Code	Tol	B	Bulk	Size	Quantity	Four characters with the multiplier used as the decimal holder.
WCB			3	3W	D	0.5%			CB2, CB3, CB5		
MCB			5	5W	F	1%			MCB3, MCB5	500	
CBF	7		7W	J	5%	WCB2, WCB3, WCB5					
WCBF	With standoff		10	10W	K	10%			CB7, CB10, CB15	250	
MCBF			15	15W					WCB7, WCB10, WCB15		
NCB			20	20W			MCB 7				
NCBF	Non-inductive with standoff		22	22W			CB20, CB22, CB25, CB30	100	0.1 ohm = R100 33 ohm = 33R0 3.32 Kohm = 3K32		
			25	25W							
			30	30W							
		WCB	2	2W							
			3	3W							
			5	5W							
			7	7W							
		MCB	10	10W							
			15	15W							
			3	3W							
			5	5W							
			7	7W							

Legacy Part Number (before January 3, 2011):

SEI Type		Code	Nominal Resistance	Tolerance	Packaging			
<b>CB</b>		<b>2</b>	<b>100</b>	<b>5%</b>	<b>B</b>			
<b>Code</b>	<b>Description</b>	<b>Code</b>		<b>Tolerance</b>	<b>SEI Types</b>	<b>Pkg Qty</b>	<b>Description</b>	<b>Code</b>
CB	Standard	2		0.5%	CB2, CB3, CB5, MCB3, MCB5	750	Bulk	B
WCB		3		1%	WCB2, WCB3, WCB5	500		
MCB		5		5%	CB7, CB10, CB15, WCB7	250		
CBF	7		10%	WCB10, WCB15, MCB7				
WCBF	With standoff	10			CB20, CB22, CB25, CB30	100		
MCBF		15						
NCB	Non inductive	20						
NCBF	Non inductive with standoff	22						
		25						
		30						