

# CB Series

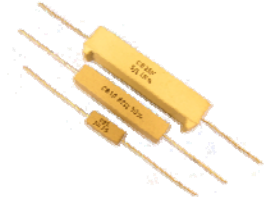
Ceramic Housed with Axial Leads Wirewound Resistor

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

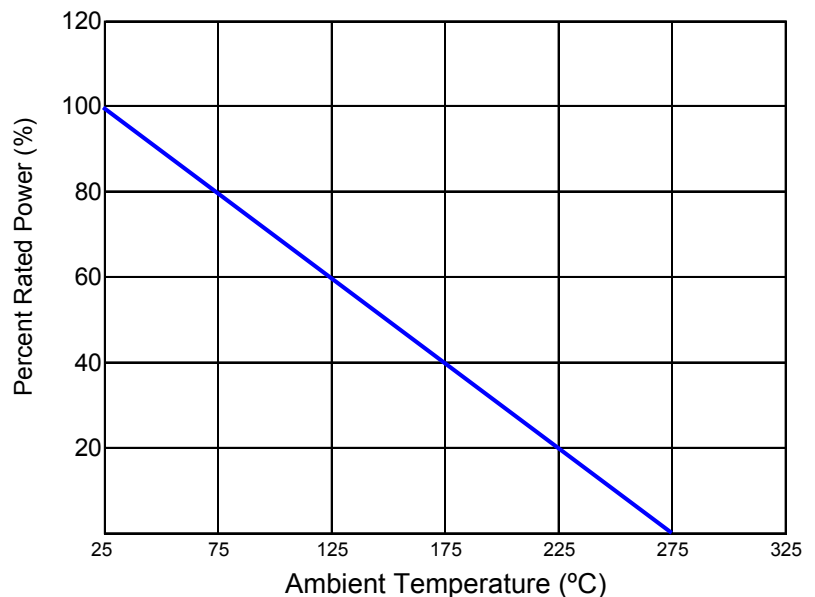


Electrical Specifications					
Type / Code	Power Rating (Watts) @ 70°C	Ohmic Range(Ω) and Tolerance			
		0.5%	1%	5%	10%
CB2	2W	-	-	0.1 - 300	0.1 - 300
CB3	3W	-	-	0.1 - 680	0.1 - 680
CB5	5W	-	-	0.1 - 680	0.1 - 680
CB7	7W	-	-	0.1 - 1.5K	0.1 - 1.5K
CB10	10W	-	-	0.1 - 2K	0.1 - 2K
CB15	15W	-	-	0.15 - 2K	0.15 - 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	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	-	-	1 - 500K	-
MCB5	5W	-	-	1 - 500K	-
MCB7	7W	-	-	1 - 500K	-

Resistance Temperature Coefficient Standard:

CB series: ±800ppm below 1Ω & ±300ppm for 1Ω and above; WCB series: ±50ppm from 0.1Ω to 10Ω & ±20ppm above 10Ω; MCB series: ±200ppm

**Power Derating Curve:**

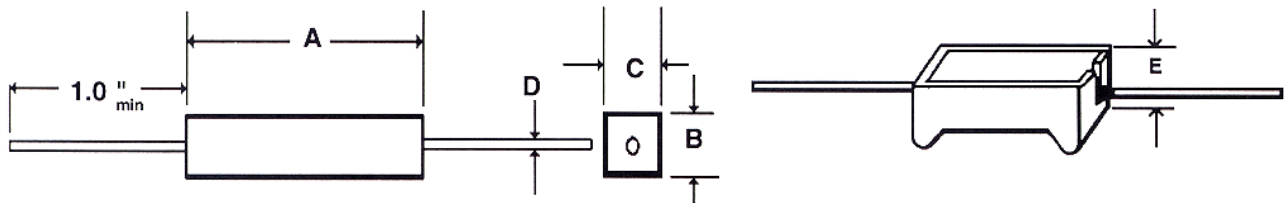


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## Mechanical Specifications

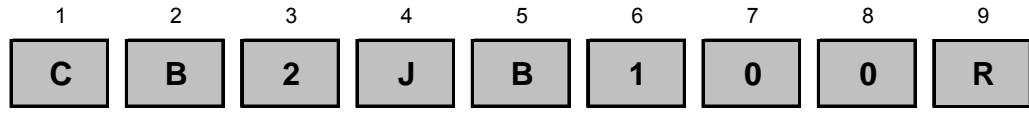
Type / Code	A	B	C	D	E	Unit
CB2	0.709 ± 0.039	0.276 ± 0.039	0.276 ± 0.039	0.025 ± 0.002	0.3 ± 0.039	inches
	18.0 ± 1.0	7.0 ± 1.0	7.0 ± 1.0	0.65 ± 0.05	7.6 ± 1.0	mm
CB3	0.866 ± 0.039	0.312 ± 0.039	0.312 ± 0.039	0.032 ± 0.002	0.375 ± 0.039	inches
	22.0 ± 1.0	8.0 ± 1.0	8.0 ± 1.0	0.81 ± 0.05	9.5 ± 1.0	mm
CB5	0.866 ± 0.039	0.394 ± 0.039	0.394 ± 0.039	0.032 ± 0.002	0.437 ± 0.039	inches
	22.0 ± 1.0	10.0 ± 1.0	10.0 ± 1.0	0.81 ± 0.05	11.1 ± 1.0	mm
CB7	1.378 ± 0.039	0.394 ± 0.039	0.394 ± 0.039	0.032 ± 0.002	0.5 ± 0.039	inches
	35.0 ± 1.0	10.0 ± 1.0	10.0 ± 1.0	0.81 ± 0.05	12.7 ± 1.0	mm
CB10	1.89 ± 0.039	0.394 ± 0.039	0.394 ± 0.039	0.032 ± 0.002	0.5 ± 0.039	inches
	48.0 ± 1.0	10.0 ± 1.0	10.0 ± 1.0	0.81 ± 0.05	12.7 ± 1.0	mm
CB15	1.89 ± 0.039	0.492 ± 0.039	0.492 ± 0.039	0.032 ± 0.002	0.625 ± 0.039	inches
	48.0 ± 1.0	12.5 ± 1.0	12.5 ± 1.0	0.81 ± 0.05	15.9 ± 1.0	mm
CB20	2.362 ± 0.039	0.571 ± 0.039	0.531 ± 0.039	0.032 ± 0.002	0.625 ± 0.039	inches
	60.0 ± 1.0	14.5 ± 1.0	13.5 ± 1.0	0.81 ± 0.05	15.9 ± 1.0	mm
CB22	2.5 ± 0.039	0.5 ± 0.039	0.5 ± 0.039	0.036 ± 0.002	0.625 ± 0.039	inches
	63.5 ± 1.0	12.7 ± 1.0	12.7 ± 1.0	0.91 ± 0.05	15.9 ± 1.0	mm
CB25	2.362 ± 0.039	0.571 ± 0.039	0.531 ± 0.039	0.032 ± 0.002	0.625 ± 0.039	inches
	60 ± 1	14.5 ± 1.0	13.5 ± 1.0	0.81 ± 0.05	15.9 ± 1.0	mm
CB30	2.5 ± 0.039	0.625 ± 0.039	0.625 ± 0.039	0.036 ± 0.002	-	inches
	63.5 ± 1.0	15.9 ± 1.0	15.9 ± 1.0	0.91 ± 0.05	-	mm
WCB2	0.7 ± 0.039	0.245 ± 0.039	0.255 ± 0.039	0.032 ± 0.002	0.3 ± 0.039	inches
	17.8 ± 1.0	6.2 ± 1.0	6.5 ± 1.0	0.81 ± 0.05	7.6 ± 1.0	mm
WCB3 / MCB3	0.875 ± 0.039	0.312 ± 0.039	0.312 ± 0.039	0.032 ± 0.002	0.375 ± 0.039	inches
	22.2 ± 1.0	7.9 ± 1.0	7.9 ± 1.0	0.81 ± 0.05	9.5 ± 1.0	mm
WCB5 / MCB5	0.875 ± 0.039	0.375 ± 0.039	0.375 ± 0.039	0.032 ± 0.002	0.437 ± 0.039	inches
	22.2 ± 1.0	9.5 ± 1.0	9.5 ± 1.0	0.81 ± 0.05	11.1 ± 1.0	mm
WCB7 / MCB7	1.4 ± 0.039	0.375 ± 0.039	0.375 ± 0.039	0.036 ± 0.002	0.5 ± 0.039	inches
	35.6 ± 1.0	9.5 ± 1.0	9.5 ± 1.0	0.91 ± 0.05	12.7 ± 1.0	mm
WCB10	1.875 ± 0.039	0.375 ± 0.039	0.375 ± 0.039	0.036 ± 0.002	0.5 ± 0.039	inches
	47.6 ± 1.0	9.5 ± 1.0	9.5 ± 1.0	0.91 ± 0.05	12.7 ± 1.0	mm
WCB15	1.875 ± 0.039	0.5 ± 0.039	0.5 ± 0.039	0.036 ± 0.002	0.625 ± 0.039	inches
	47.6 ± 1.0	12.7 ± 1.0	12.7 ± 1.0	0.91 ± 0.05	15.9 ± 1.0	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

### How to Order



Product Series		Series	Code	Power	Tolerance		Packaging			Resistance Value	
Code	Description				Code	Tol	Code	Description	Size	Quantity	
CB	Standard	CB	2	2W	D	0.5%	B	bulk	CB 2, 3, 5	750	Four characters with the multiplier used as the decimal holder.  0.1 ohm = R100 33 ohm = 33R0 3.32 Kohm = 3K32
WCB			3	3W	F	1%			MCB 3, 5		
MCB			5	5W	J	5%			WCB 2, 3, 5	500	
CBF	With standoff		7	7W	K	10%			CB 7, 10, 15	250	
WCBF			10	10W					WCB 7, 10, 15		
MCBR			15	15W					MCB 7		
NCB	Non-inductive		20	20W					CB 20, 22, 25, 30	100	
NCBF	Non-inductive with standoff		22	22W							
			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			
CB		2	100	5%	B			
Code	Description	Code		Tolerance	SEI Types	Pkg Qty	Description	Code
CB	Standard	2	3	0.5%	CB 2, CB 3, CB 5, MCB 3, MCB 5	750	bulk	B
WCB		5	7	1%	WCB 2, WCB 3, WCB 5	500		
MCB		10	15	5%	CB 7, CB 10, CB 15, WCB 7, WCB 10, WCB 15, MCB 7	250		
CBF	With standoff	20	22	10%	CB 20, CB 22, CB 25, CB 30	100		
WCBF		25	30					
MCBF								
NCB	Non inductive							
NCBF	Non inductive with standoff							