

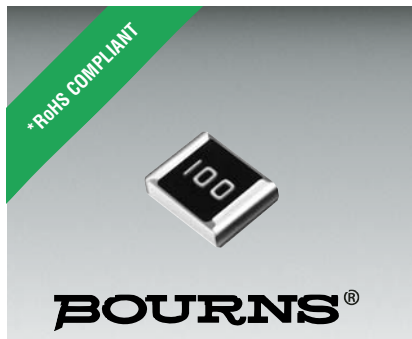
Distributed by:



www.Jameco.com ♦ 1-800-831-4242

The content and copyrights of the attached
material are the property of its owner.

Jameco Part Number 2023847



Features

- Special alloy resistor
- Power rating at 70 °C: CRA2010 - 1.5 W, CRA2512 - 3 W
- RoHS compliant*

Applications

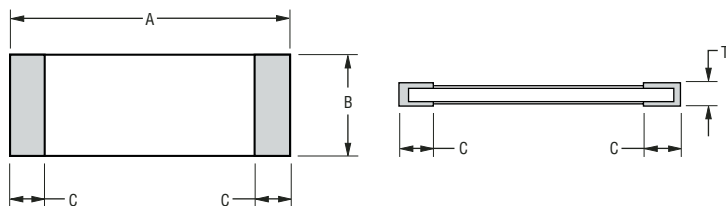
- Power supplies
- Stepper motor drives

CRA2010/CRA2512 - High Power Current Sense Chip Resistor

Electrical Characteristics

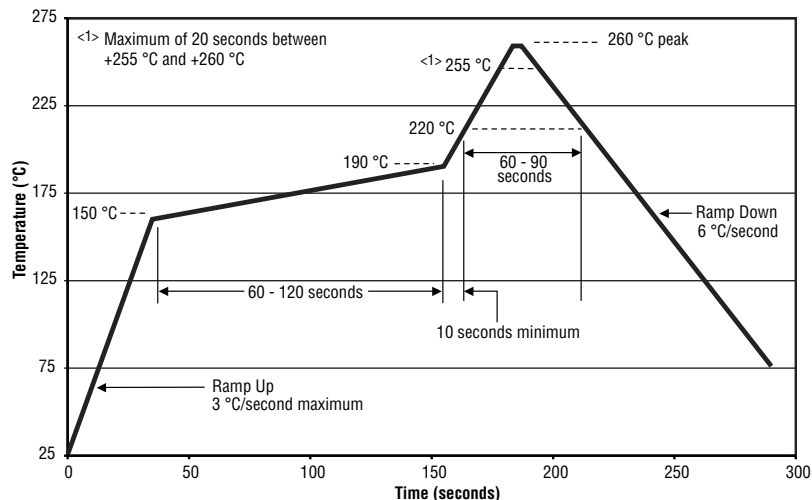
Characteristic	CRA2010	CRA2512
Power Rating @ 70 °C	1.5 W	3 W
Operating Temperature Range	-55 °C to +170 °C	
Derated to Zero Load at	+170 °C	
Maximum Working Voltage	$(P \times R)^{1/2}$	
Insulation Resistance	> 100 megohms	
Resistance Range	0.010 - 0.060 Ω	0.010 - 0.100 Ω
Resistance Tolerance	$\pm 1\%$, $\pm 5\%$	
Temperature Coefficient	± 75 PPM/°C	

Product Dimensions



Model	A	B	C	T
CRA2010	$\frac{5.0 \pm 0.20}{(0.1962 \pm 0.008)}$	$\frac{2.5 \pm 0.20}{(0.0984 \pm 0.008)}$	$\frac{0.6 \pm 0.20}{(0.0236 \pm 0.008)}$	$\frac{0.6 \pm 0.20}{(0.0236 \pm 0.008)}$
CRA2512	$\frac{6.40 \pm 0.20}{(0.252 \pm 0.008)}$	$\frac{3.20 \pm 0.20}{(0.126 \pm 0.008)}$	$\frac{0.90 \pm 0.20}{(0.035 \pm 0.008)}$	$\frac{0.6 \pm 0.20}{(0.0236 \pm 0.008)}$

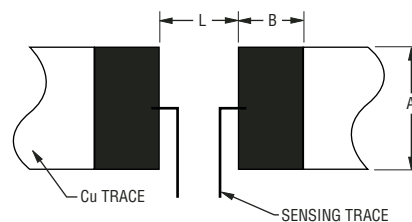
Soldering Profile for RoHS Compliant Chip Resistors and Arrays



Characteristic Data

Test	ΔR Max.
Load Life (1000 hours)	< $\pm 1\%$
Short Time Overload	< $\pm 0.5\%$
Thermal Shock	< $\pm 0.5\%$

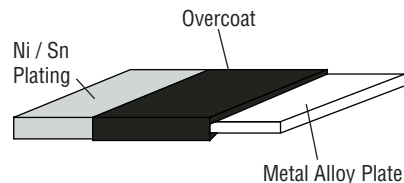
Recommended Solder Pad Layout



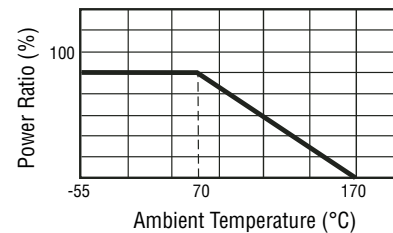
Model	A	B	L
CRA2010	$\frac{3.1}{(0.122)}$	$\frac{2.7}{(0.106)}$	$\frac{3.1}{(0.122)}$
CRA2512	$\frac{4.0}{(0.157)}$	$\frac{2.1}{(0.083)}$	$\frac{4.1}{(0.161)}$

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Construction



Derating Curve

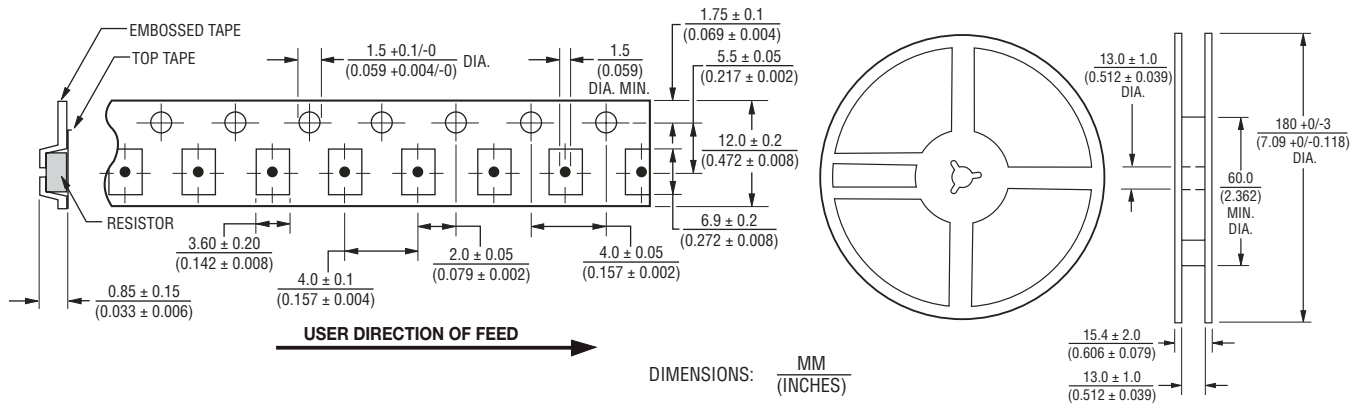


*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications

CRA2010/CRA2512 - High Power Current Sense Chip Resistor

BOURNS®

Packaging Dimensions (Conforms to EIA RS-481A)



CRA2010 Resistance Values Available

Code	R Value	Code	R Value
R010	0.010	R040	0.040
R015	0.015	R045	0.045
R020	0.020	R050	0.050
R025	0.025	R055	0.055
R030	0.030	R060	0.060
R035	0.035		

CRA2512 Resistance Values Available

Code	R Value	Code	R Value
R010	0.010	R055	0.055
R015	0.015	R060	0.060
R017	0.017	R065	0.065
R020	0.020	R070	0.070
R025	0.025	R075	0.075
R030	0.030	R080	0.080
R034	0.034	R085	0.085
R035	0.035	R090	0.090
R040	0.040	R095	0.095
R045	0.045	R100	0.100
R050	0.050		

Consult factory for other resistance values.

How to Order

CRA 2512 - F Z - R025 E LF

Model _____
(CRA = Precision Chip Resistor)

Size _____
2010 = 2010 Size
2512 = 2512 Size

Resistance Tolerance _____
• F = ±1 %
• J = ±5 %

TCR (PPM/°C) _____
• Z = ±75 PPM/°C

Resistance Value _____
"R" (decimal point) followed by three significant digits (example: R025 = 0.025 ohm)

Packaging _____
• E = 4000 pieces on 180 mm (7 inch) reel

Termination _____
• LF = Tin-plated (RoHS compliant)