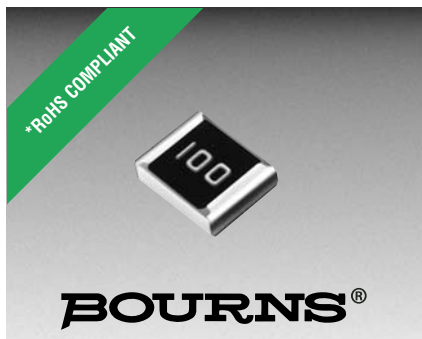




Features

- Resistance value as low as 0.001 ohm
- Power rating of 2 watts at 70 °C
- RoHS compliant*

Applications

- Power supplies
- Stepper motor drives

CRF2512 - High Power Current Sense Chip Resistor

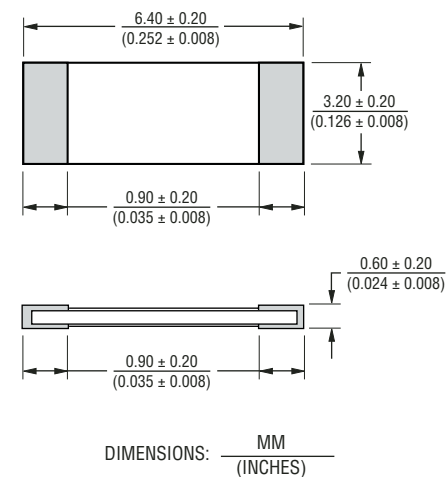
Electrical Characteristics

Power Rating @ 70 °C 0.001 to 0.010 ohms 0.015 to 0.040 ohms	2 W 1 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	0.001 - 0.040 ohms
Resistance Tolerance	±1 %, ±5 %
Temperature Coefficient 0.001 to 0.002 ohms 0.003 to 0.010 ohms 0.015 to 0.040 ohms	±275 PPM/°C ±100 PPM/°C ±75 PPM/°C

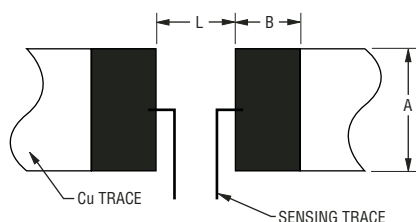
Characteristic Data

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

Product Dimensions

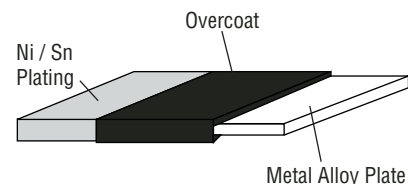


Recommended Solder Pad Layout

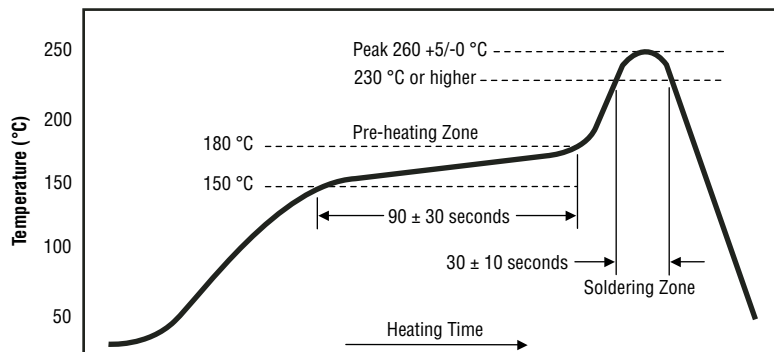


Resistance Range (Ohms)	A	B	L
0.001-0.002	$\frac{4.0}{(0.157)}$	$\frac{3.1}{(0.122)}$	$\frac{1.3}{(0.051)}$
0.003-0.040	$\frac{4.0}{(0.157)}$	$\frac{2.1}{(0.083)}$	$\frac{4.1}{(0.161)}$

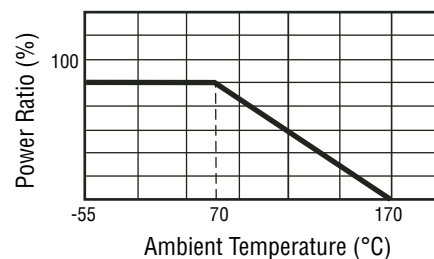
Construction



Soldering Profile



Derating Curve

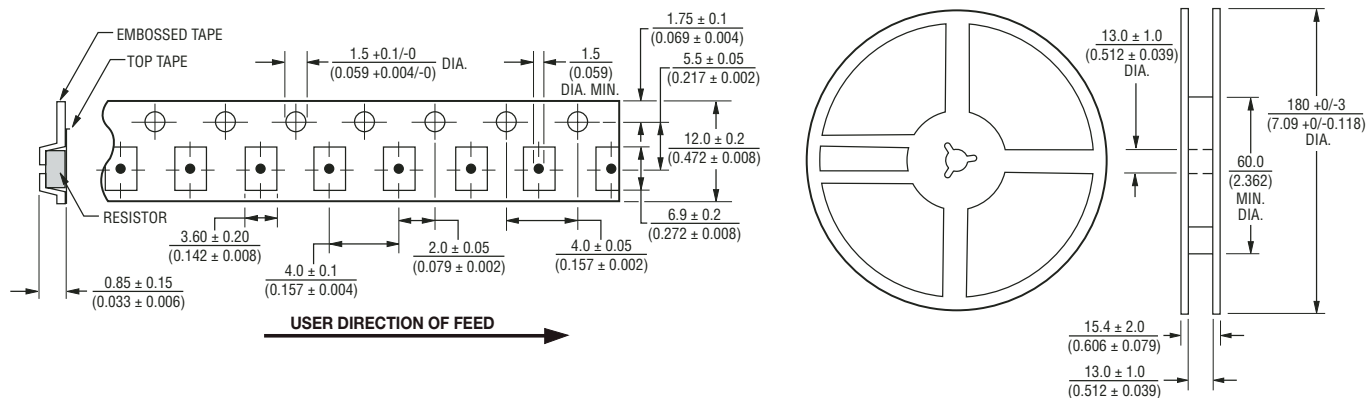


*RoHS Directive 2002/95/EC Jan 27 2003 including Annex Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

CRF2512 - High Power Current Sense Chip Resistor

BOURNS®

Packaging Dimensions (Conforms to EIA RS-481A)



Resistance Value Table

Code	R Value
R001	0.001
R002	0.002
R003	0.003
R005	0.005
R007	0.007
R010	0.010
R015	0.015
R020	0.020
R025	0.025
R030	0.030
R035	0.035
R040	0.040

How To Order

Model _____
 (CRF = Precision Chip Resistor)

Size _____
 2512 = 2512 Size

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

TCR (PPM/°C) _____
 • Z = ±75 PPM/°C, 0.015 ohm or greater
 • X = ±100 PPM/°C, 0.003 ohm through 0.010 ohm
 • V = ±275 PPM/°C, 0.001 ohm through 0.002 ohm

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

Packaging _____
 • E = 4,000 pieces on 180 mm (7 inch) reel

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



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REV. 02/08

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