

### Features

- Thick film technology
- Power rating of 2 watts at 70 °C
- RoHS compliant\*

### Applications

- Power supplies
- Stepper motor drives

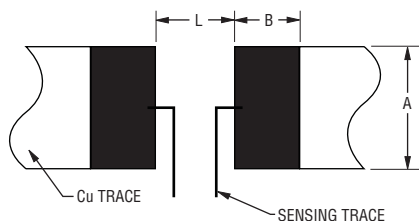
## CRM2512 - Pulse Resistant Power Resistor

### Electrical Characteristics

Power Rating @ 70 °C	2 W
Operating Temperature Range	-55 °C to +155 °C
Derated to Zero Load at	+155 °C
Maximum Working Voltage 0.047 to 0.91 ohms 1.0 ohm to 1.0 megohm	3017 mV 600 V
Insulation Resistance	> 1000 megohms
Resistance Range	0.047 - 0.91 ohm (E24 Values) 1.0 - 9.1 ohms (E24 Values) 10.0 ohms - 1 megohm (E24 + E96 Values)
Resistance Tolerance	±1 %, ±5 %
Temperature Coefficient 0.047 to 0.091 ohms 0.100 to 0.91 ohms 1.0 ohm to 1 megohm 10 ohms to 1 megohm	±150 PPM/°C ±100 PPM/°C ±200 PPM/°C ±100 PPM/°C

For Standard Values Used in Capacitors, Inductors, and Resistors, [click here](#).

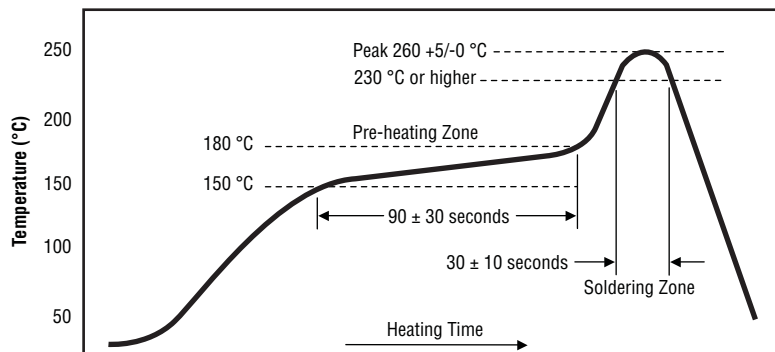
### Recommended Solder Pad Layout



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

Model	A	B	L
CRM2512	$\frac{3.7}{(0.146)}$	$\frac{2.45}{(0.096)}$	$\frac{2.7}{(0.106)}$

### Soldering Profile



\*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

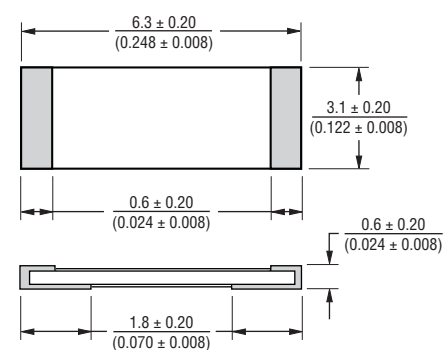
### General Information

The Bourns® CRM2512 Series is a thick-film power resistor with a rating of 2 watts in a standard 2512 chip format. This product has a very wide resistance range making it suitable for different applications in power supply circuits including current sensing and inrush current limiting.

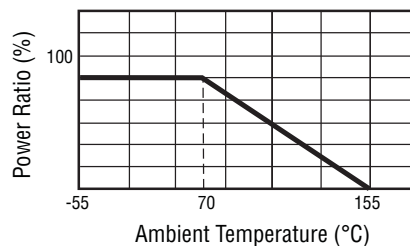
### Characteristic Data

Test	ΔR Max.
Load Life (1000 hours) 1 % Tolerance 5 % Tolerance	< 1 % < 3 %
Short Term Overload 1 % Tolerance 5 % Tolerance	< 1 % < 2 %
Thermal Shock 1 % Tolerance 5 % Tolerance	< 0.5 % < 1 %

### Product Dimensions



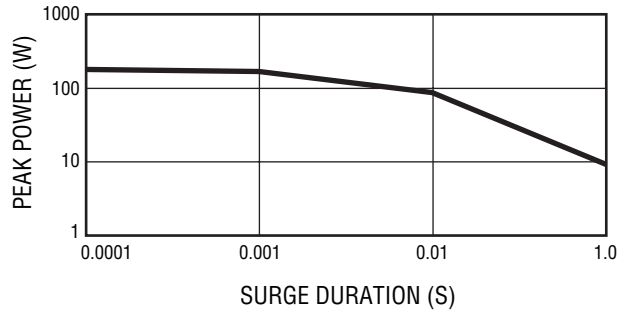
### Derating Curve



# CRM2512 - Pulse Resistant Power Resistor

**BOURNS®**

## Pulse Load Characteristics (R > 1 Ohm)



## How to Order

CRM 2512 - F X - R100 E LF

Model \_\_\_\_\_  
(CRM = Precision Chip Resistor)

Size \_\_\_\_\_  
2512 = 2512 Size

Resistance Tolerance \_\_\_\_\_  
• F =  $\pm 1\%$   
• J =  $\pm 5\%$

TCR (PPM/ $^{\circ}$ C) \_\_\_\_\_  
• W =  $\pm 200$  PPM/ $^{\circ}$ C  
• Z =  $\pm 150$  PPM/ $^{\circ}$ C  
• X =  $\pm 100$  PPM/ $^{\circ}$ C

Resistance Value \_\_\_\_\_  
R < 1 ohm (1 % or 5 % Tolerance): "R" (decimal point) followed by three significant digits (example: R100 = 0.100 ohm)  
1% Tolerance:  
<100 ohms ..... "R" represents decimal point (example: 24R3 = 24.3 ohms)  
 $\geq 100$  ohms ..... First three digits are significant, fourth digit represents number of zeros to follow (example: 8252 = 82.5K ohms)  
5% Tolerance:  
<10 ohms ..... "R" represents decimal point (example: 4R7 = 4.7 ohms)  
 $\geq 10$  ohms ..... First two digits are significant, third digit represents number of zeros to follow (example: 474 = 470K ohms)

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

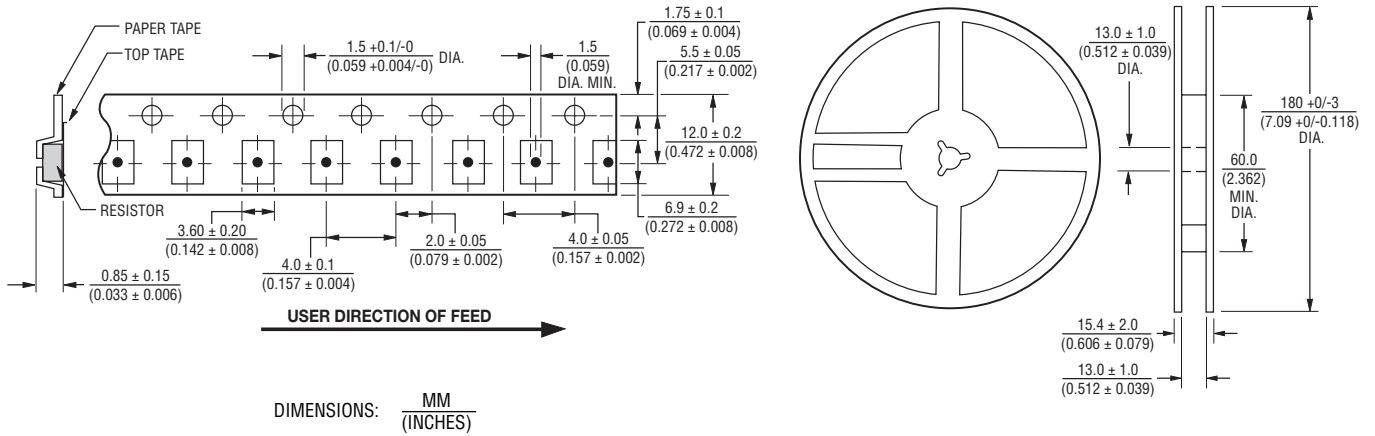
Termination \_\_\_\_\_  
• LF = Tin-plated (RoHS Compliant)

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## Packaging Dimensions (Conforms to EIA RS-481A)



REV. 02/11

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