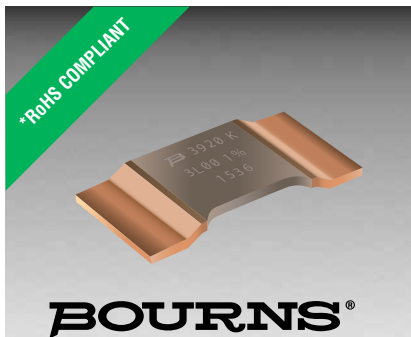




## Features

- EB welded metal strip
- Very high power
- Excellent long term stability
- Low resistance, low TCR
- Low thermal EMF
- RoHS compliant\*

## Applications

- Current sensing
- Voltage division
- Battery management systems
- Power modules
- Frequency converters
- Industrial

## Model CSS2H-3920 Series Current Sense Resistor

### Electrical Characteristics

| Characteristic                                                        | Model CSS2H-3920 Series |                     |
|-----------------------------------------------------------------------|-------------------------|---------------------|
| Resistance Range /<br>Power Rating @70 °C* /<br>Power Rating @130 °C* | CSS2H-3920R-L200x       | 0.2 mΩ / 12 W / 5 W |
|                                                                       | CSS2H-3920R-L500x       | 0.5 mΩ / 9 W / 5 W  |
|                                                                       | CSS2H-3920R-1L00x       | 1.0 mΩ / 8 W / 5 W  |
|                                                                       | CSS2H-3920K-2L00x       | 2.0 mΩ / 6 W / 4 W  |
|                                                                       | CSS2H-3920K-3L00x       | 3.0 mΩ / 5 W / 3 W  |
| Operating Temperature Range                                           | -55 to +170 °C          |                     |
| TCR - Resistive Alloy                                                 | ≤+50 PPM/°C (20~60 °C)  |                     |
| Resistance Tolerance                                                  | ±1 %, ±5 %              |                     |

\* Terminal temperature

### Environmental Characteristics

| Characteristic               | Test Condition                     | ΔR Max. |
|------------------------------|------------------------------------|---------|
| Thermal Shock                | -55 to +150 °C / 100 Cycles        | 0.50 %  |
| Resistance to Soldering Heat | +260 °C / 10 Seconds               | 0.50 %  |
| High Temperature Exposure    | +170 °C / 100 Hours                | 1.00 %  |
| Low Temperature Storage      | -65 °C / 24 Hours                  | 0.10 %  |
| Biased Humidity Test         | +85 °C, 85 %R.H., 100 Hours        | 0.50 %  |
| Moisture Resistance          | 10 Days with Cold Shock, No Load   | 0.20 %  |
| Mechanical Shock             | 100 g, 6 ms half sine              | 0.20 %  |
| Vibration, High Frequency    | 20 g, 10-2000 Hz                   | 0.20 %  |
| Load Life                    | 1000 Hours Derated Curve at 130 °C | 1.00 %  |

### How to Order

Model **CSS 2H - 3920 R - 1L00 F**

No. of Terminals & Style \_\_\_\_\_

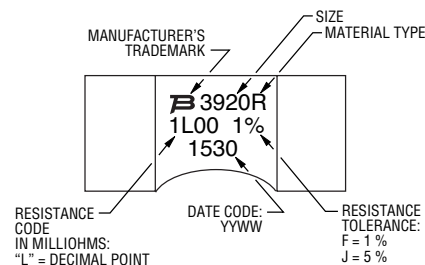
Size \_\_\_\_\_

Material Type \_\_\_\_\_  
(See Part Number Table)

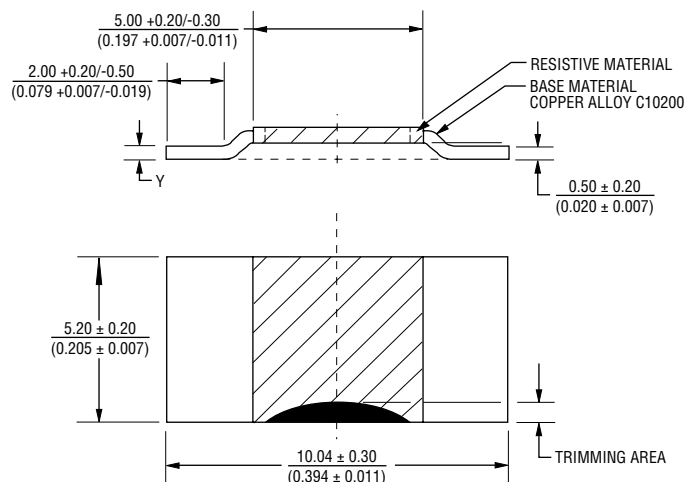
Resistance Code (milliohms) \_\_\_\_\_  
"L" represents decimal point  
(examples: L500 = .500 milliohms;  
1L00 = 1.00 milliohms)

Resistance Tolerance \_\_\_\_\_  
F = ±1 %  
J = ±5 %

### Typical Part Marking



### Product Dimensions



| Part Number       | Dimension Y                              |
|-------------------|------------------------------------------|
| CSS2H-3920R-L200x | $\frac{1.20 \pm 0.1}{(0.047 \pm 0.004)}$ |
| CSS2H-3920R-L500x | $\frac{0.84 \pm 0.1}{(0.033 \pm 0.004)}$ |
| CSS2H-3920R-1L00x | $\frac{0.42 \pm 0.1}{(0.016 \pm 0.004)}$ |
| CSS2H-3920K-2L00x |                                          |
| CSS2H-3920K-3L00x |                                          |

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

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

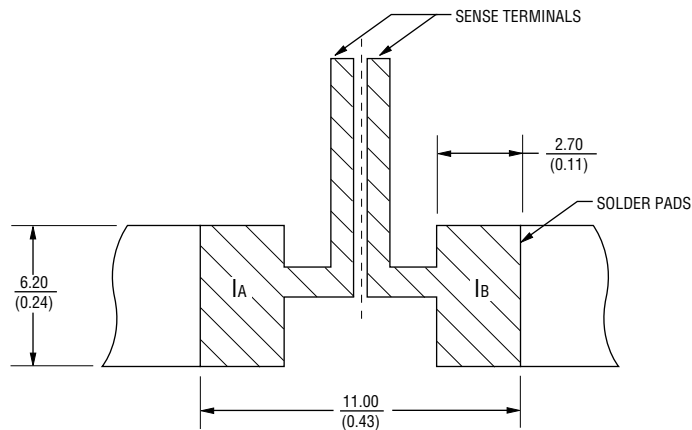
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# Model CSS2H-3920 Series Current Sense Resistor

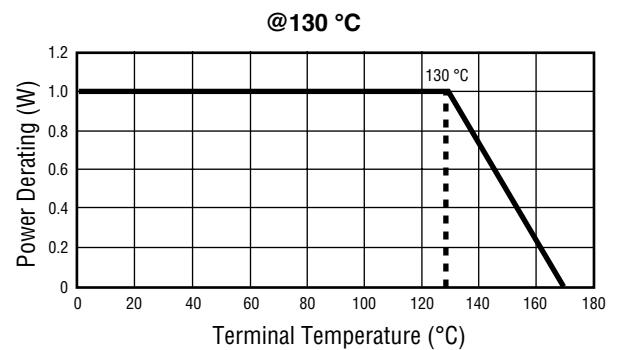
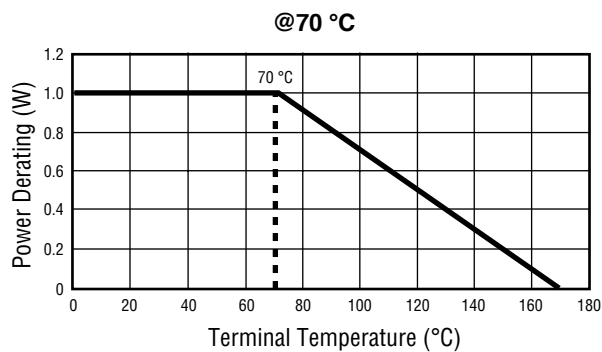
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## Recommended Pad Layout



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

## Power Derating Curves



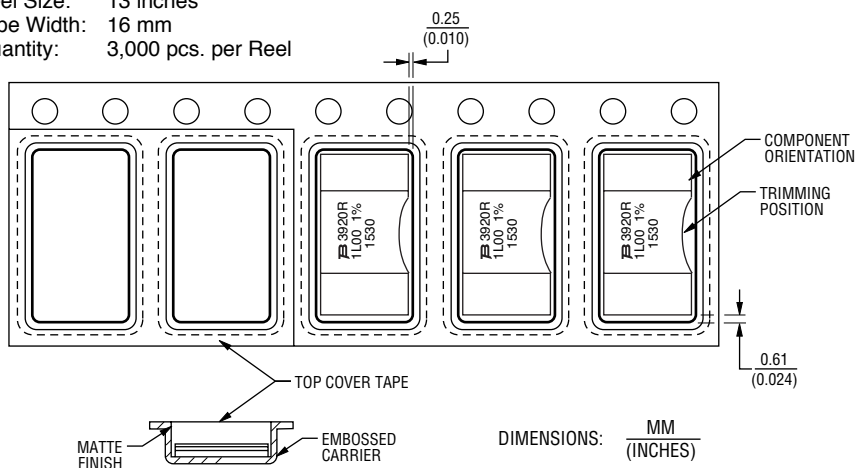
## Packaging Specifications

Components packaged per EIA-481.

Reel Size: 13 inches

Tape Width: 16 mm

Quantity: 3,000 pcs. per Reel



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