

## Features

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

## Applications

- Current sensing
- Voltage division
- Power modules
- Frequency converters
- Industrial

## Model CSI4J-4026 Series Current Sense Resistor

### Electrical Characteristics

Characteristic	Model CSI4J-4026 Series <sup>2</sup>	
Resistance Range / Power Rating @ 70 °C <sup>1</sup>	CSI4J-4026R-L200x <sup>3</sup>	0.2 mΩ / 11 W
	CSI4J-4026R-L300x	0.3 mΩ / 10 W
	CSI4J-4026R-L500x	0.5 mΩ / 10 W
	CSI4J-4026R-1L00x	1.0 mΩ / 8 W
	CSI4J-4026K-2L00x	2.0 mΩ / 6 W
Operating Temperature Range	-55 to +170 °C	
TCR - Resistive Alloy <sup>2</sup>	±50 PPM/°C (20~60 °C)	
Temperature Coefficient	CSI4J-4026R-L200x <sup>3</sup>	±150 PPM/°C
	CSI4J-4026R-L300x	±100 PPM/°C
	CSI4J-4026R-L500x	±100 PPM/°C
	CSI4J-4026R-1L00x	±75 PPM/°C
	CSI4J-4026K-2L00x	±75 PPM/°C
Inductance	Material type R: < 3 nH Material type K: < 5 nH	
Resistance Tolerance	±1 %, ±2 %, ±5 %	

<sup>1</sup>Terminal temperature    <sup>2</sup>For full TCR range, refer to TCR curve

<sup>3</sup>Tinned copper    <sup>4</sup>Other resistance values are available upon request - contact factory

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### How to Order

Model **CSI 4J - 4026 R - L500 J**

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 milliohm)

Resistance Tolerance \_\_\_\_\_  
F = ±1 %  
G = ±2 %  
J = ±5 %

### Environmental Characteristics

Characteristic	Test Condition	ΔTR Max.
Thermal Shock	-55 to +150 °C / 1000 Cycles	0.50 %
Short Time Overload	5 Times Rated Power for 5 Second Duration	0.50 %
Resistance to Soldering Heat	+260 °C / 10 Seconds	0.50 %
High Temperature Exposure	+170 °C / 1000 Hours	1.00 %
Low Temperature Storage	-65 °C / 24 Hours	0.10 %
Moisture Resistance	10 Days with Cold Shock, No Load	0.20 %
Mechanical Shock	100 g, 6 ms half sine	0.20 %
Vibration, High Frequency	5 g, 10-2000 Hz	0.20 %
Load Life	1000 Hours, Max. Load, Terminal Temperature 130 °C	1.00 %
Solderability	J-STD-002	95 % Coverage Min.
ESD	AEC-Q200-002, 25 kV	0.25 %
Board Flex	60 Sec. Min. Holding Time	0.25 %

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant. See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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Part Number	Dimension H max.	Alloy
CSI4J-4026R-L200x	$\frac{4.00}{(0.157)}$	Cu-Mn
CSI4J-4026R-L300x	$\frac{3.44}{(0.135)}$	Cu-Mn
CSI4J-4026R-L500x	$\frac{3.04}{(0.120)}$	Cu-Mn
CSI4J-4026R-1L00x	$\frac{2.70}{(0.106)}$	Cu-Mn
CSI4J-4026K-2L00x	$\frac{2.93}{(0.115)}$	Fe-Cr

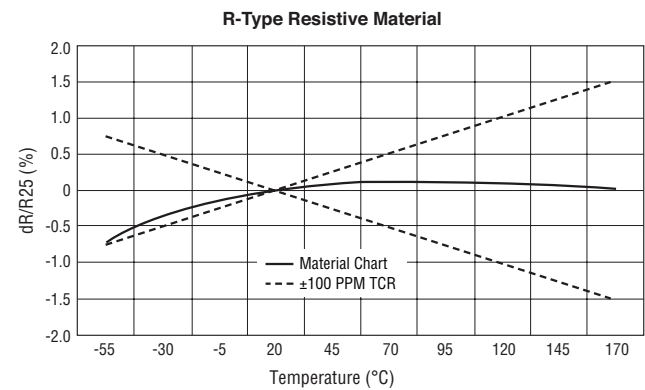
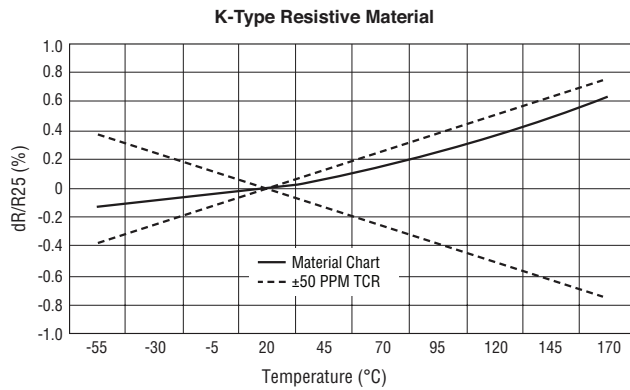
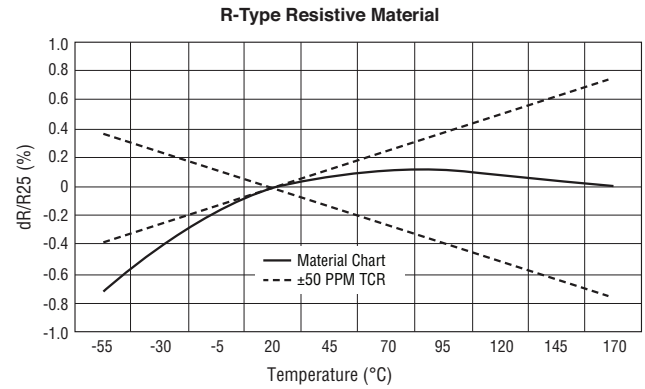
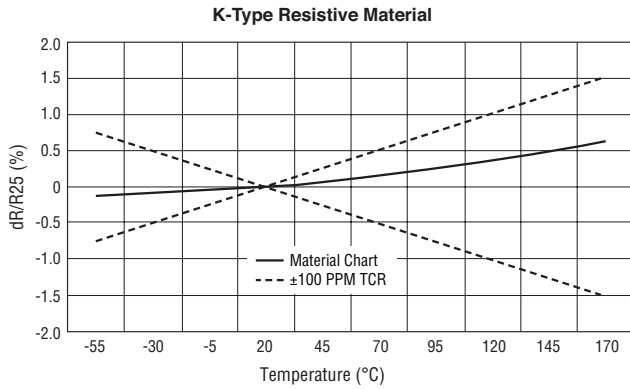
A diagram showing a zigzag chain of nodes. The chain starts with a node labeled  $l_2$  on the left and ends with a node labeled  $l_1$  on the right. The chain consists of four zigzag segments. Above the middle of the chain is the label  $R_1$ .

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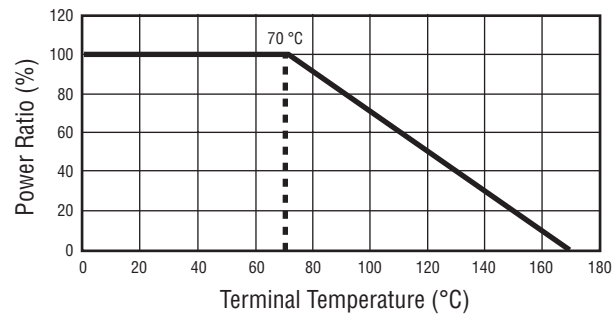
# Model CSI4J-4026 Series Current Sense Resistor

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## TCR Curves



## Terminal Temperature Derating Curve



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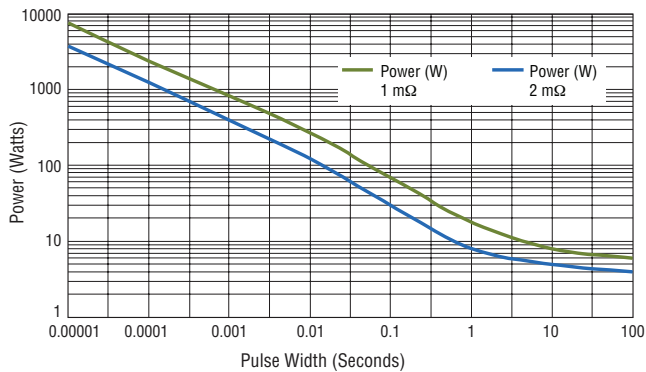
Users should verify actual device performance in their specific applications.

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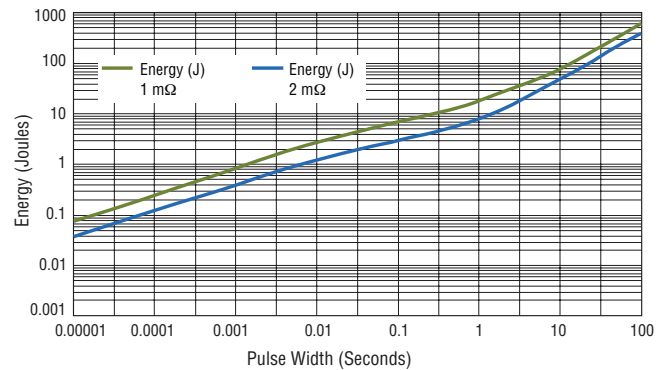
## Model CSI4J-4026 Series Current Sense Resistor

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### Maximum Pulse Power



### Maximum Pulse Energy



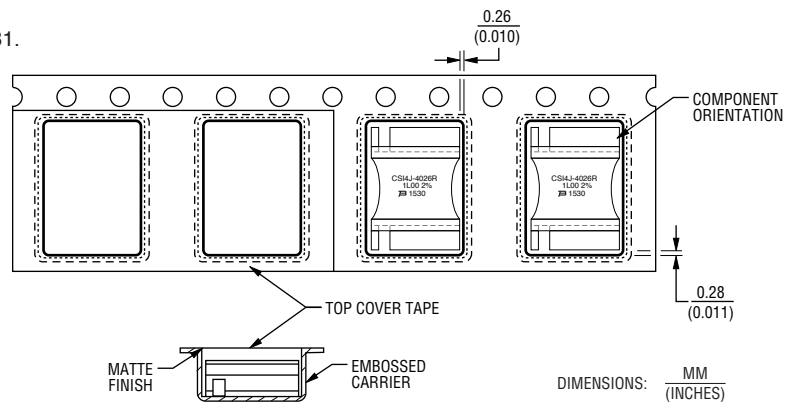
### Packaging Specifications

Components packaged on plastic tape & reel per EIA-481.

Standard Reel Size: 13 inches

Tape Width: 16 mm

Quantity: 1,500 pcs. per reel



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