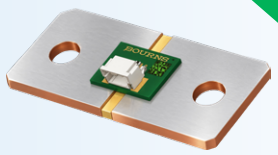
BOURNS®

CSI2F-7036 Series

Current Sense Resistor Module



*RoHS COMPLIANT

Features

- Bare copper terminals
- Up to 36 W continuous power
- High pulse power rating
- Maximum fastening torque: 10 Nm
- RoHS compliant* and lead free
- Customized versions available

Applications

- Battery management systems
- Current sensing in bus bars
- Current sensing in welding equipment
- Frequency converters
- Industrial applications

Sustainability

- Corrosion-resistant for longevity
- Recyclable ESD-safe packaging
- ISO 14001, low-impact energy
- Responsibly sourced and produced

Product Overview

These module-style current sense resistors are designed for high-current applications and feature ultra-low resistance values, high pulse power capability, and continuous power ratings up to 36 W. Available with either bare copper or tinned terminals and horizontal or vertical connection options, the new series provides designers with flexible solutions for battery management systems, bus bar current sensing, welding equipment, frequency converters, and industrial power applications.

Environmental Characteristics

Moisture Sensitivity Level..... 1
ESD Classification .....N/A

Packaging Specifications

Tray Pack.....20 pcs. per high impact polystyrene tray
Box .....60 pcs. per box 275 x 220 x 130 mm

Electrical Specifications

Characteristic	Model CSI2F-7036 Series
Resistance Range / Power Rating @ 125 °C[1]	25 µΩ / 36 W 50 µΩ / 36 W 100 µΩ / 36 W
Operating Temperature Range	-40 °C to +125 °C
TCR on Test Points (V1/V2) (+20 °C to +125 °C)	±150 ppm/°C
TCR Resistance Alloy[2]	<50 ppm/°C
Resistance Tolerance	±5 %

1. Terminal temperature
2. For full resistance alloy TCR range, refer to TCR curve

Performance Characteristics

Test	Conditions	Limit
Thermal Shock	-40 °C to +125 °C / 100 cycles	ΔR ±1.0 %
High Temperature Exposure	+125 °C / 100 hours	ΔR ±1.0 %
Load Life	+125 °C / 100 hours at maximum current rating	ΔR ±1.0 %

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

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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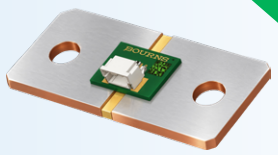

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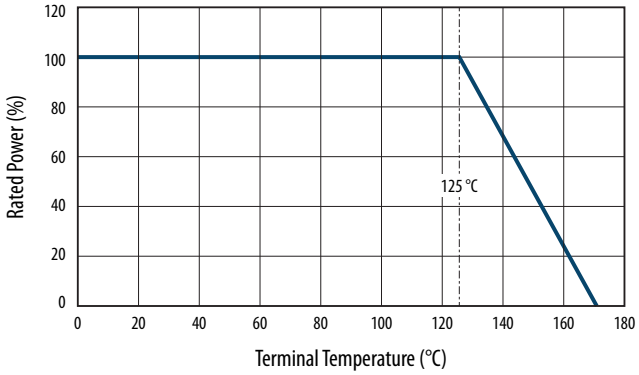
Power Derating Curve for Shunt Only



How to Order

CSI 2F - 7036 - L050 J H 0

Model
- CSI = Current Sense Resistor

Number of Terminals and Style
- 2F = 2 terminals

Package Size (metric)
- 7036 = 7036 size

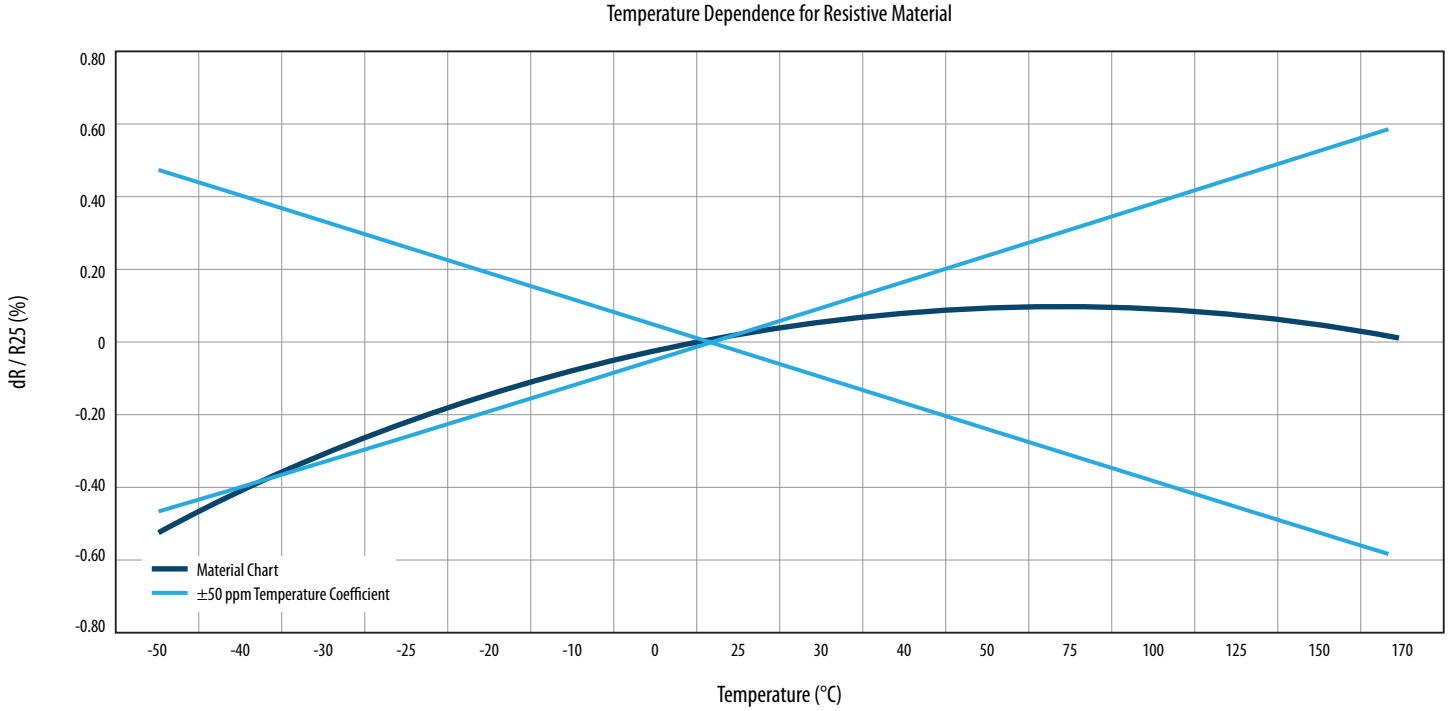
Resistance Code
- "L" represents decimal point in μΩ
- L025 = 25 μΩ
- L050 = 50 μΩ
- L100 = 100 μΩ (only bare copper)

Resistance Tolerance
- J = ±5 %

Connector
- H = Horizontal connector
- V = Vertical connector

Surface Finishing
- 0 = Bare copper terminals
- 1 = Tinned terminals

TCR Curves



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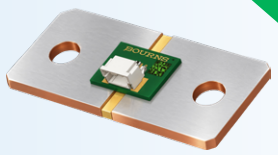
Current Sense Resistor Module



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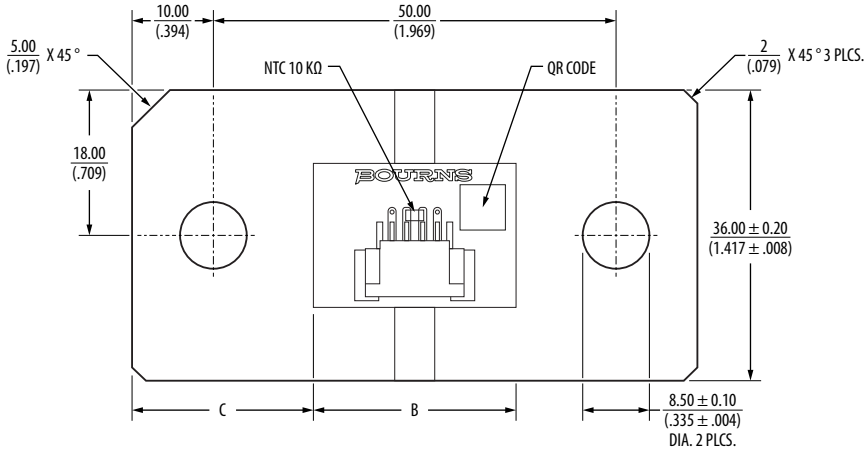
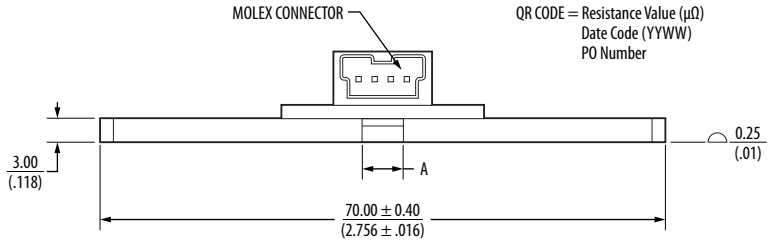
Product Dimensions





DIMENSIONS: MM (INCHES)

TOLERANCE: ±0.25 (±.010) UNLESS OTHERWISE NOTED

Model	Dimensions		
	A	B	C
CSI2F-7036-L025JXX	4.7 (.185)	25.0 (.984)	22.5 (.886)
CSI2F-7036-L050JXX	9.4 (.370)	30.0 (1.181)	20.0 (.787)
CSI2F-7036-L100JX0[1]	20.0 (.787)	35.0 (1.378)	17.5 (.689)

1. Only bare copper shunt

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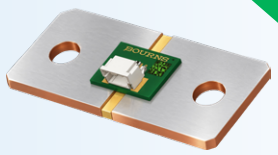

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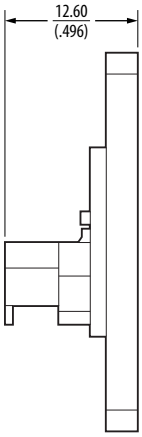
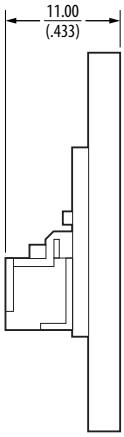
Connector Dimensions



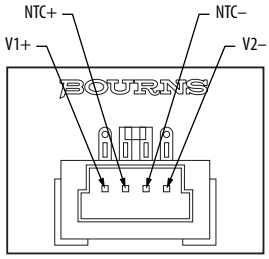
Vertical Connector



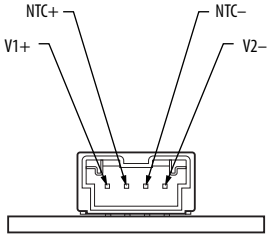
Horizontal Connector

DIMENSIONS: MM (INCHES)

Connection Diagrams

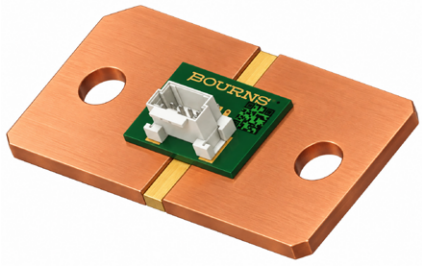


Vertical Connector Option

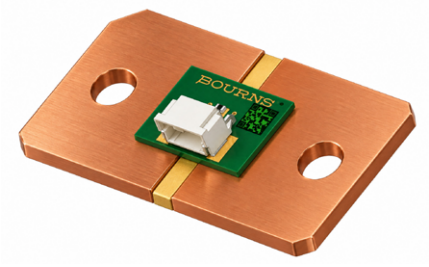


Horizontal Connector Option

Bare Copper Terminals

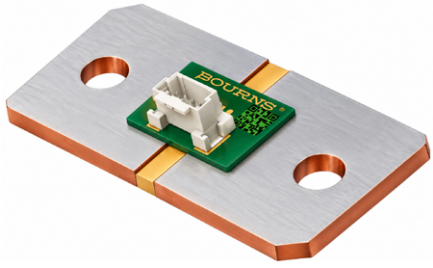


(-V) Vertical Connector

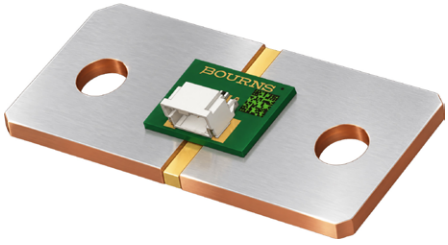


(-H) Horizontal Connector

Tinned Terminals



(-V) Vertical Connector



(-H) Horizontal Connector

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