

Features

- Fully tinned terminals and resistive element
- Up to 50 W permanent power
- High pulse power rating
- Maximum fastening torque: 10 Nm
- AEC-Q200 compliant
- RoHS compliant* / lead free
- Customized versions available

Applications

- Battery management systems
- Current sensing for hybrid and electric vehicles
- Current sensing in bus bars
- Current sensing in welding equipment
- Frequency converters

Model CSM2F-7036 Series Current Sense Resistor / Fully Tinned

Electrical Characteristics

Characteristic	Model CSM2F-7036 Series
Resistance Range / Power Rating @ 70 °C**	25 μΩ / 50 W 50 μΩ / 50 W 100 μΩ / 50 W
Operating Temperature Range	-40 °C ~ +170 °C
TCR on Test Points (+20 °C to +130 °C)	±200 ppm/°C for 25 μΩ ±150 ppm/°C for 100 μΩ and 200 μΩ
TCR Resistance Alloy***	< 50 ppm/°C
Inductance	< 12 nH
Resistance Tolerance	±5 %

** Terminal temperature
*** For full TCR range, refer to TCR curve.

Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES

FOLLOW | SHUNT PULSE CALCULATOR | CONTACT

Environmental Characteristics

Characteristic	Test Condition	ΔTR Max.
Thermal Shock	-55 °C to +150 °C / 1000 cycles	±0.5 %
High Temperature Exposure	+170 °C / 1000 hours	±1.0 %
Low Temperature Storage	-65 °C/ 24 hours	±0.5 %
Biased Humidity Test	+85 °C, 85 % RH, 10 % bias, 1000 hours	±0.5 %
Mechanical Shock	100 g, 6 milliseconds, 5 pulses	±0.5 %
Vibration, High Frequency	10-2000 Hz in 1 minute, 3 directions, 12 hours	±0.5 %
Load Life	+125 °C / 2000 hours at maximum current rating	±1.0 %
Solderability*	J-STD-002	95 % coverage min.
ESD	25 KV ± polarity	±0.5 %

* Limited to dipping terminals

How to Order

CSM 2F - 7036 - L050 J T 2

Model

No. of Terminals & Style

Size (Metric)

Resistance Code (Milliohms)
"L" Represents Decimal Point
L025 = 25 MicroOhms
L050 = 50 MicroOhms
L100 = 100 MicroOhms

Resistance Tolerance
J = ±5 %

Packaging
0 = Bulk Pack (50 pcs. per bag)
T = Tray Pack (30 pcs. per tray)

Surface Finishing
2 = Fully Tinned Terminals and Resistive Element

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.See www.P65Warnings.ca.gov

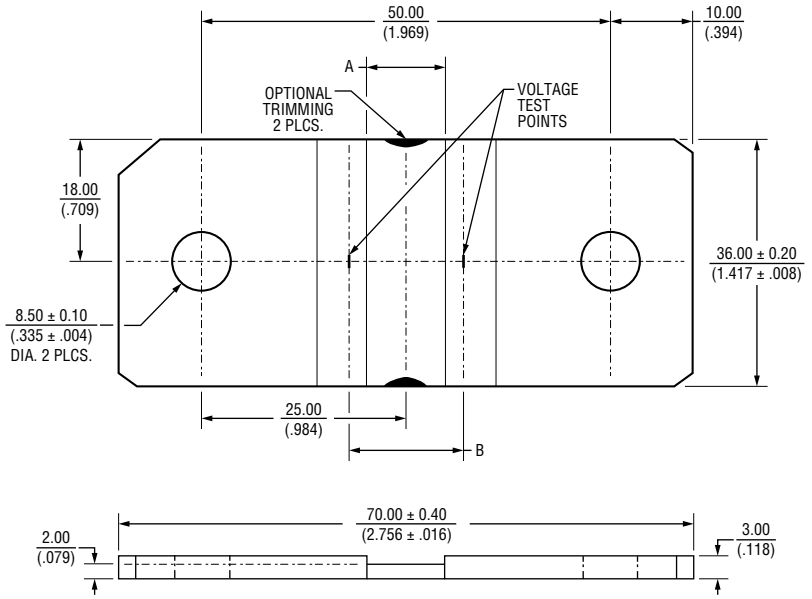
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
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Model CSM2F-7036 Series Current Sense Resistor / Fully Tinned

BOURNS®

Product Dimensions



Part Number	Dim A	Dim B
CSM2F-7036-L025J02	4.70 (.185)	7.87 (.310)
CSM2F-7036-L050J02	9.40 (.370)	12.57 (.495)
CSM2F-7036-L100J02	20.0 (.787)	23.18 (.990)

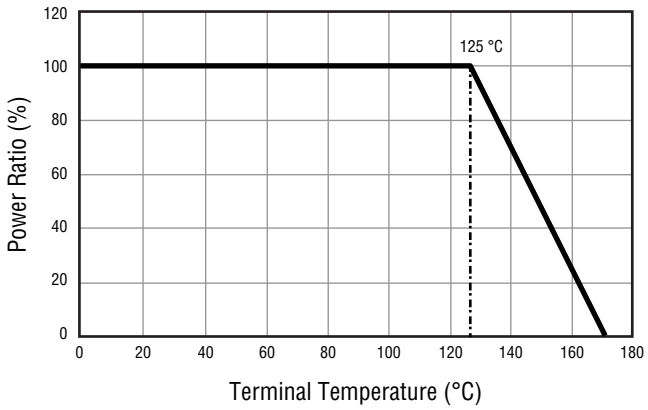
Note: Fully plated with nickel barrier and 100% Sn.

DIMENSIONS: MM (INCHES)

TOLERANCES: 0.25 (.010)

UNLESS OTHERWISE NOTED

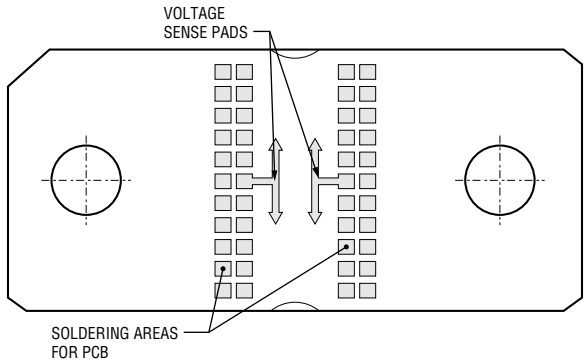
Power Derating Curve



General Specifications

Moisture Sensitivity Level 1
ESD Classification ..... Level 6
per AEC-Q200-002,
≥ 25,000 V air discharge

Reference Pad for SMD Mounting



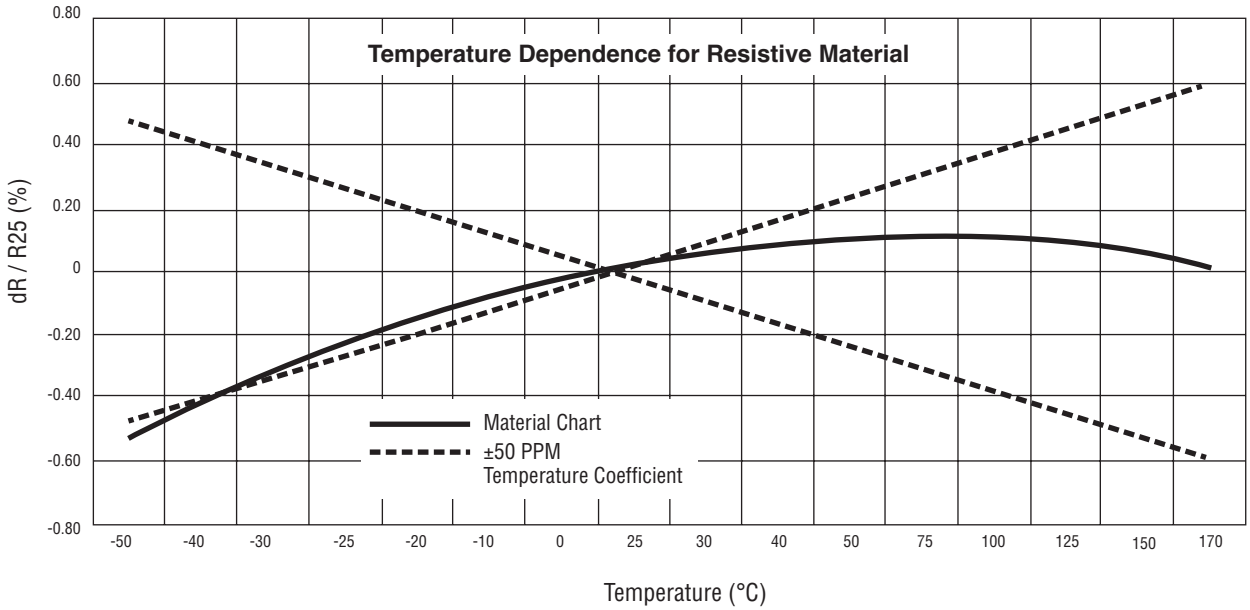
Packaging Specifications

Bulk Pack ..... 50 pcs. per plastic bag
100 pcs. per box
Tray Pack ..... 30 pcs. per high impact polysterene tray
150 pcs. per box
Size ..... 235 mm x 225 mm (9.252 in. x 8.858 in.)

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TCR Curves



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