

Features

- Bare copper terminals
- 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 w/Bare Copper Terminals

Electrical Characteristics

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

** Terminal temperature

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

Additional Information

Click these links for more information:



Environmental Characteristics

Characteristic	Test Condition	Δ TR 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 / 1000 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.

* Limited to dipping terminals

How to Order

CSM 2F - 7036 - L050 J T 0

Model _____

No. of Terminals & Style _____

Size (Metric) _____

Resistance Code (Milliohms)
"L" Represents Decimal Point _____
L050 = 50 MicroOhms

Resistance Tolerance _____
J = ± 5 %

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

Surface Finishing _____
0 = Bare Copper Terminals



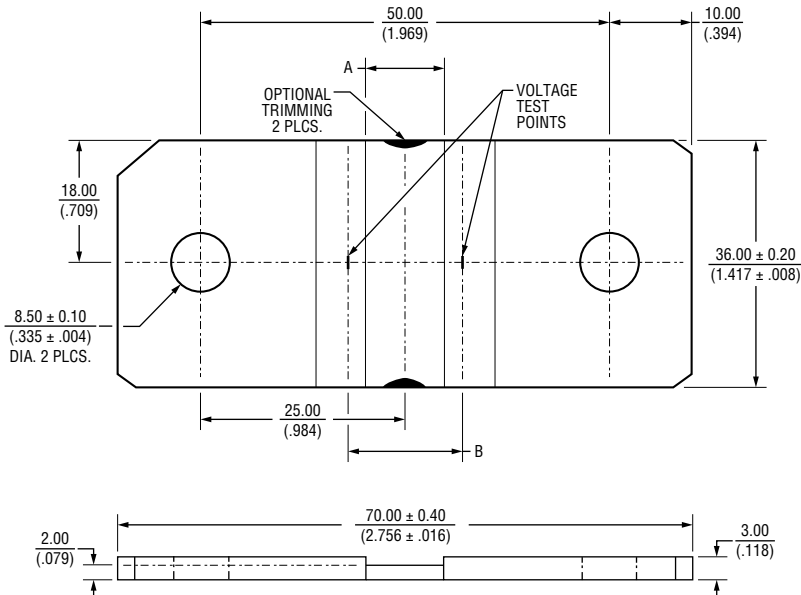
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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Model CSM2F-7036 Series Current Sense Resistor w/Bare Copper Terminals



Product Dimensions



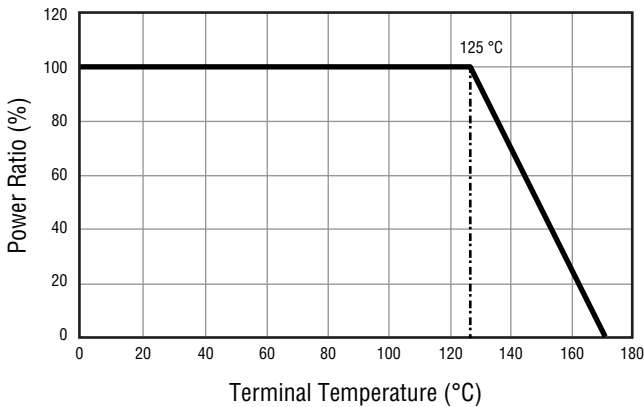
Part Number	Dim A	Dim B
CSM2F-7036-L025J00	$\frac{4.70}{(.185)}$	$\frac{7.87}{(.310)}$
CSM2F-7036-L050J00	$\frac{9.40}{(.370)}$	$\frac{12.57}{(.495)}$
CSM2F-7036-L100J00	$\frac{20.0}{(.787)}$	$\frac{23.18}{(.990)}$

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

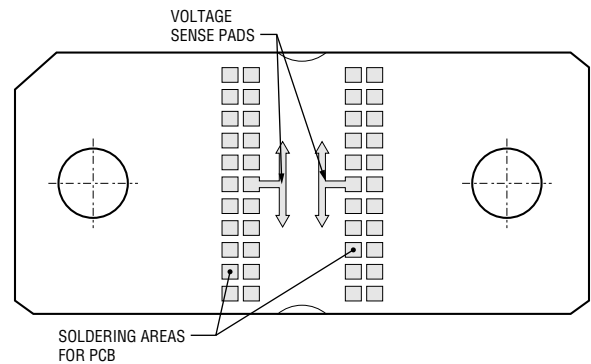
TOLERANCES: $\frac{0.25}{(.010)}$

UNLESS OTHERWISE NOTED

Power Derating Curve



Reference Pad for SMD Mounting



General Specifications

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

Packaging Specifications

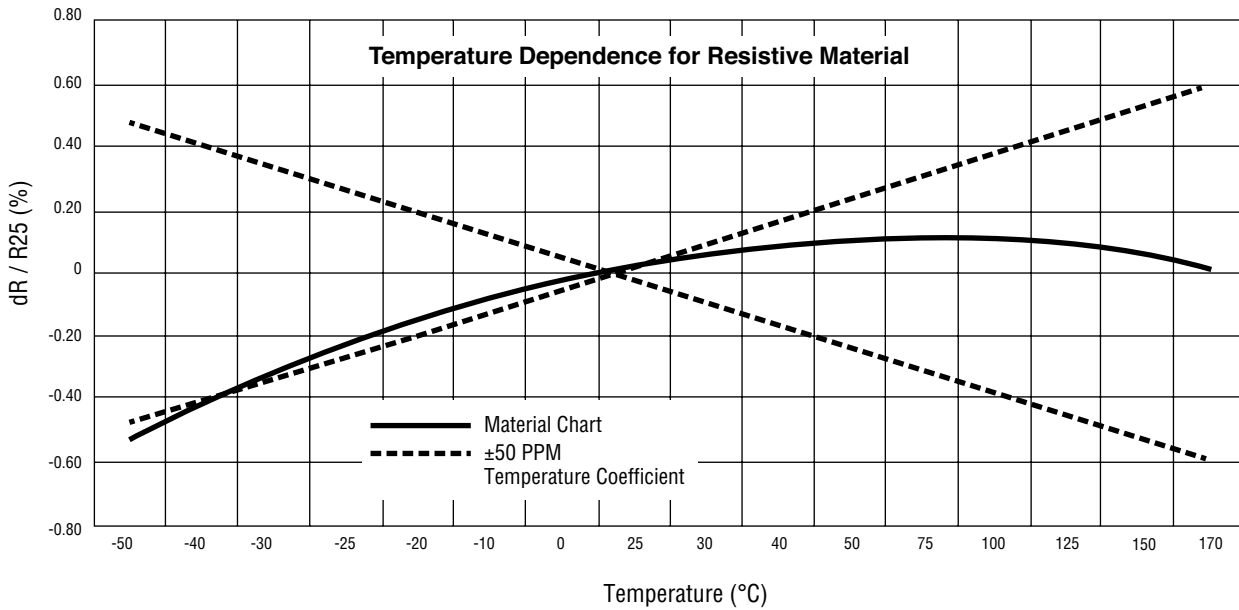
Bulk Pack.....50 pcs. per plastic bag
 100 pcs. per box
 Tray Pack 30 pcs. per high impact polystyrene tray
 150 pcs. per box
 Size..... 235 mm x 225 mm (9.252 in. x 8.858 in.)

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Users should verify actual device performance in their specific applications.

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TCR Curves



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