

Features

- Tinned terminals
- Up to 36 W permanent power
- High pulse power rating
- Maximum fastening torque: 10 Nm
- Customized versions available
- AEC-Q200 and RoHS* compliant

Applications

- Current sensing for battery management systems
- Current sensing in bus bars
- Current sensing in welding equipment
- Frequency converters

Model CSM2F-8518 Series Current Sense Resistor w/Tinned Terminals

Electrical Characteristics

Characteristic	Model CSM2F-8518 Series
Resistance Range / Power Rating @ 70 °C**	50 μΩ / 36 W 100 μΩ / 36 W
Operating Temperature Range	-40 °C to +170 °C
TCR on Test Points	±150 ppm/°C for 50 μΩ ±125 ppm/°C for 100 μΩ
TCR Resistance Alloy***	< 50 ppm/°C
Thermal EMF (μV/K)	< 0.25 for 50 μΩ < 1.50 for 100 μΩ
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 to +150 °C / 1000 cycles	±1.0 %
Resistance to Soldering Heat	+260 °C / 10 seconds	±0.5 %
High Temperature Exposure	+170 °C / 1000 hours	±1.5 %
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	1000 hours, derated at 70 °C	±1.0 %
Solderability	J-STD-002	95 % coverage min.

How to Order

CSM 2F - 8518 - L050 J 0 1

Model

No. of Terminals & Style

Size (Metric)

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

Resistance Tolerance
J = ±5 %

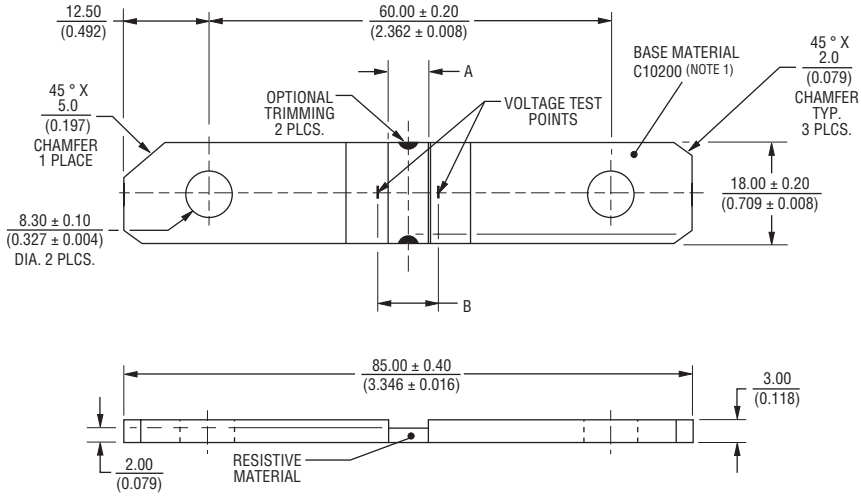
Packaging
0 = Bulk Pack (50 pcs. per bag)
T = Tray Pack (32 pcs. per tray)

Surface Finishing
1 = Tinned Terminals

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.
Users should verify actual device performance in their specific applications.
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Product Dimensions



NOTES:

1. Tinned Terminals: 100 % Sn, RoHS Complaint, JESD201 Class-2, ST200 Process, 2.5 -8 micrometers, NI underplate 1.5- 4 micrometers.
2. Base Material Copper: C10200 Temper 1/2 Hard.

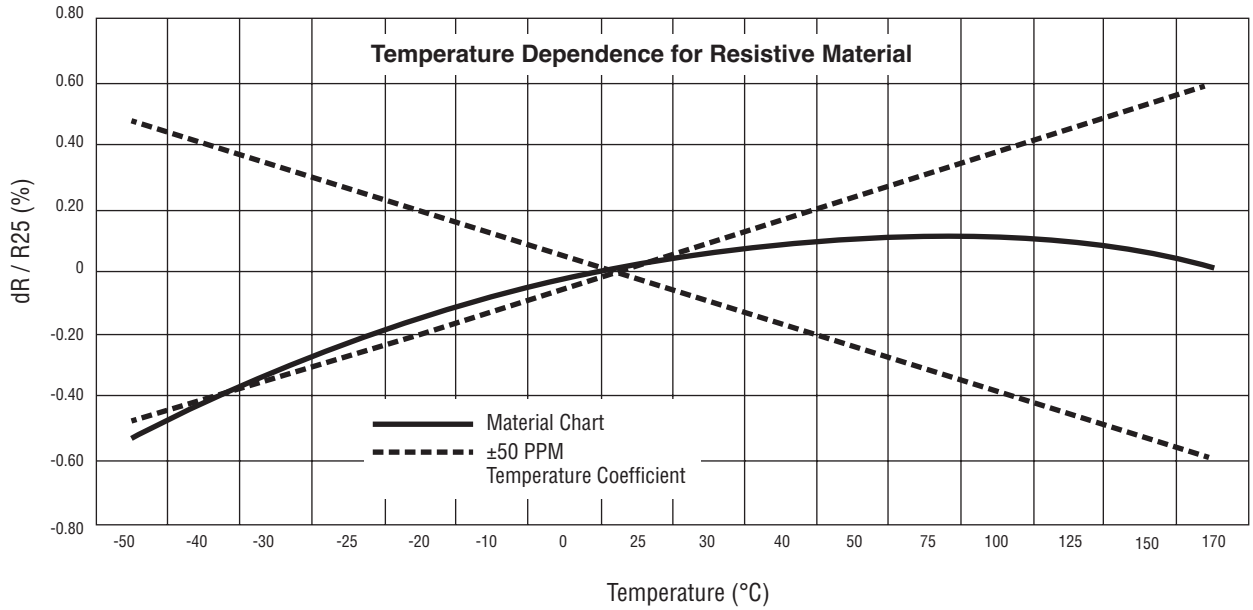
Part Number	Dim A	Dim B
CSM2F-8518-L050Jxx	4.70 (.185)	7.87 (.310)
CSM2F-8518-L100Jxx	9.40 (.370)	12.57 (.495)

DIMENSIONS: MM (INCHES)

TOLERANCES: 0.25 (.010)

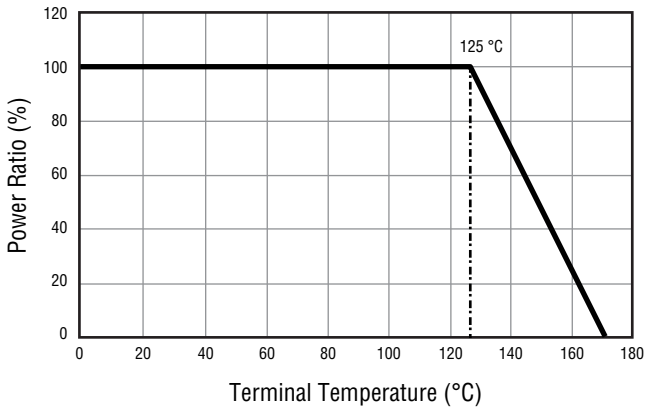
UNLESS OTHERWISE NOTED

TCR Curves



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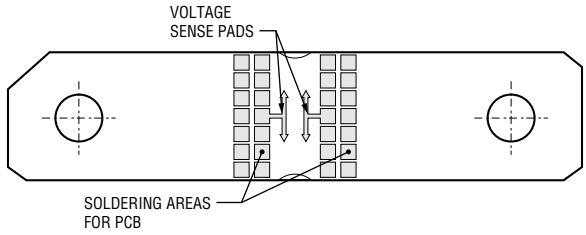
Power Derating Curve



Packaging Specifications

Bulk Pack.....50 pcs. per plastic bag
100 pcs. per box
Tray Pack .....32 pcs. per high impact polysterene tray
224 pcs. per box
Size..... 246 mm x 246 mm (9.685 in. x 9.685 in.)

Reference Pad for SMD Mounting



General Specifications

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

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