

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	\pm 150 ppm/°C for 50 μΩ \pm 125 ppm/°C for 100 μΩ
TCR Resistance Alloy***	< 50 ppm/°C
Thermal EMF (μV/K)	$<$ 0.25 for 50 $\mu\Omega$ $<$ 1.50 for 100 $\mu\Omega$
Resistance Tolerance	±5 %

Additional Information

Click these links for more information:



** Terminal temperature

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

Environmental Characteristics

Characteristic	Test Condition	∆TR 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 $J = \pm 5 \%$	
Packaging 0 = Bulk Pack (50 pcs. per bag) T = Tray Pack (32 pcs. per tray)	

Surface Finishing -

1 = Tinned Terminals



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

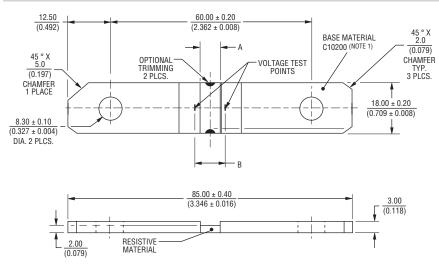
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CSM 2E - 8518 - 1 050 - 1 0 1

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

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Product Dimensions



NOTES:

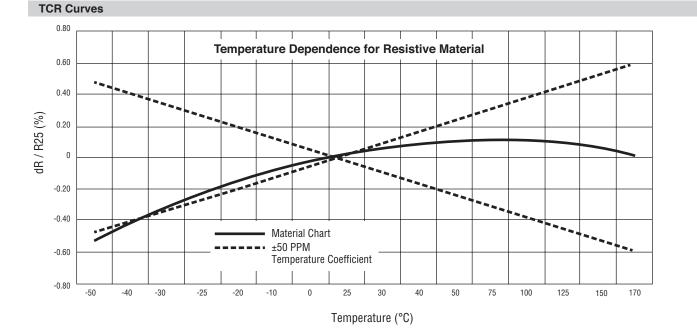
- 1. Tinned Terminals: 100 % Sn, RoHS Complaint, JESD201 Class-2, ST200 Process, 2.5 -8 micrometers, NI underplate 1.5- 4 micrometers.
- 2. Base Material Copper: C10200 Temper 1/2 Hard.

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

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

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

UNLESS OTHERWISE NOTED



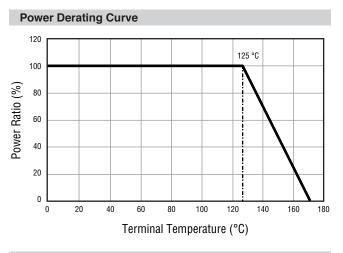
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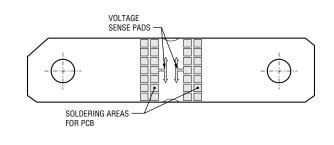
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Packaging Specifications

Bulk Pack	
	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.)



General Specifications

Reference Pad for SMD Mounting

Moisture Sensitivity Level	1
ESD Classification	
	per AEC-Q200-002,

≥ 25,000 V air discharge

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