



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



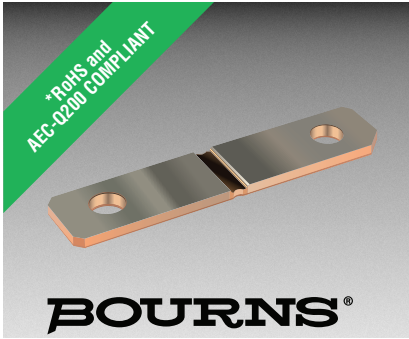
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Features

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

Applications

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

Model CSM2F-8518 Series Current Sense Resistor

Electrical Characteristics

Characteristic	Model CSM2F-8518 Series
Resistance Range / Power Rating @ 70 °C**	50 MicroOhms / 36 Watts 100 MicroOhms / 36 Watts
Operating Temperature Range	-40 °C to +170 °C
TCR on Test Points	±150 PPM/°C for 50 MicroOhms ±125 PPM/°C for 100 MicroOhms
TCR Resistance Alloy***	< 50 PPM/°C
Thermal EMF (µV/K)	< 0.25 for 50 MicroOhms < 1.50 for 100 MicroOhms
Resistance Tolerance	±5 %

** Terminal temperature

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

How to Order

CSM 2F - 8518 - L050 J 01

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 _____
01 = Bulk Pack (50 pcs. per bag)
T1 = Tray Pack (32 pcs. per tray)

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.
Short time Overload	5 times rated power for 5 seconds	±0.5 %

BOURNS®

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

Specifications are subject to change without notice.

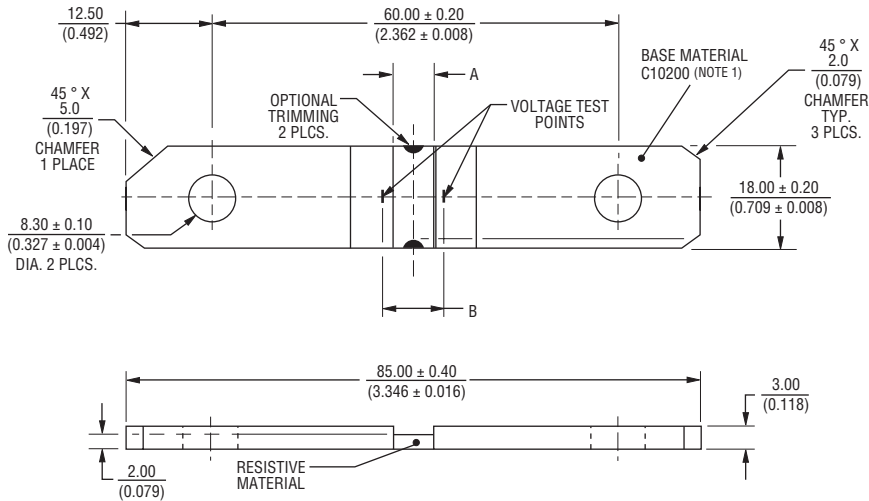
Users should verify actual device performance in their specific applications.

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Model CSM2F-8518 Series Current Sense Resistor



Product Dimensions



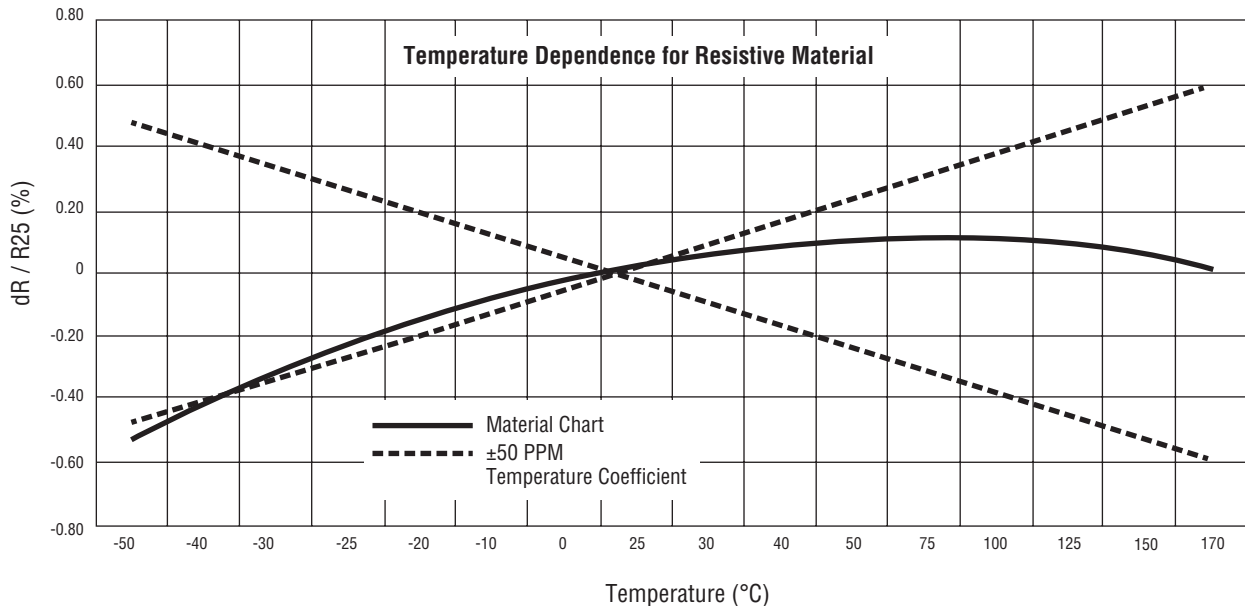
NOTES:

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
CSS2F-8518-L050Jxx	4.70 (0.185)	7.87 (0.310)
CSS2F-8518-L100Jxx	9.40 (0.370)	12.57 (0.495)

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$ TOLERANCES: $\frac{0.25}{(0.010)}$ UNLESS OTHERWISE NOTED

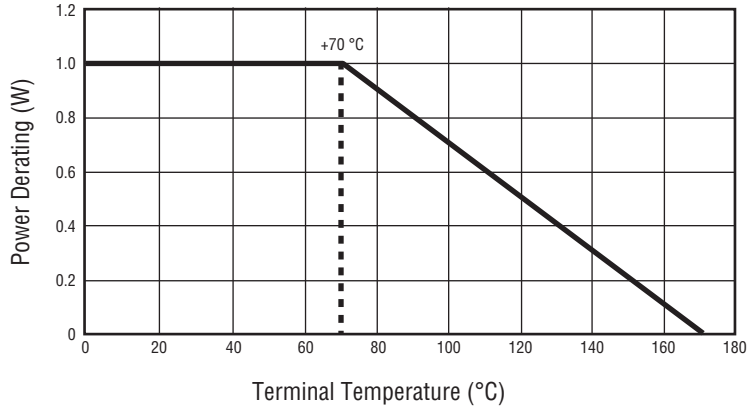
TCR Curves



Model CSM2F-8518 Series Current Sense Resistor

BOURNS®

Power Derating Curve



General Specifications

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

Packaging Specifications

Standard Bulk Pack
..... 50 pcs. per plastic bag;
100 pcs. per box
Tray Pack 32 pcs. per high impact
polysterene tray;
224 pcs. per box

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