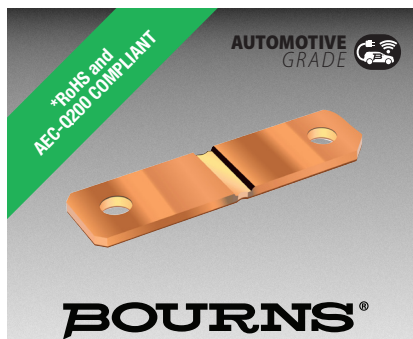




Features

- Bare copper terminals
- Up to 36 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-6918 Series Current Sense Resistor w/Bare Copper Terminals

Electrical Characteristics

Characteristic	Model CSM2F-6918 Series
Resistance Range / Power Rating @ 70 °C**	50 $\mu\Omega$ / 36 W 100 $\mu\Omega$ / 36 W 200 $\mu\Omega$ / 36 W
Operating Temperature Range	-40 °C ~ +170 °C
TCR on Test Points (+20 °C to +130 °C)	± 100 ppm/°C for 50 $\mu\Omega$ ± 50 ppm/°C for 100 $\mu\Omega$ and 200 $\mu\Omega$
TCR Resistance Alloy***	< 50 ppm/°C
Inductance	< 5 nH
Resistance Tolerance	± 5 %

** Terminal temperature

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

Additional Information

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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 / 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 - 6918 - L050 J 0 0

Model	CSM 2F - 6918 - L050 J 0 0
No. of Terminals & Style	
Size (Metric)	
Resistance Code (Milliohms)	
"L" Represents Decimal Point	
L050 = 50 MicroOhms	
L100 = 100 MicroOhms	
L200 = 200 MicroOhms	
Resistance Tolerance	
J = ± 5 %	
Packaging	
0 = Bulk Pack (50 pcs. per bag)	
T = Tray Pack (52 pcs. per tray)	
Surface Finishing	
0 = Bare Copper Terminals	



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

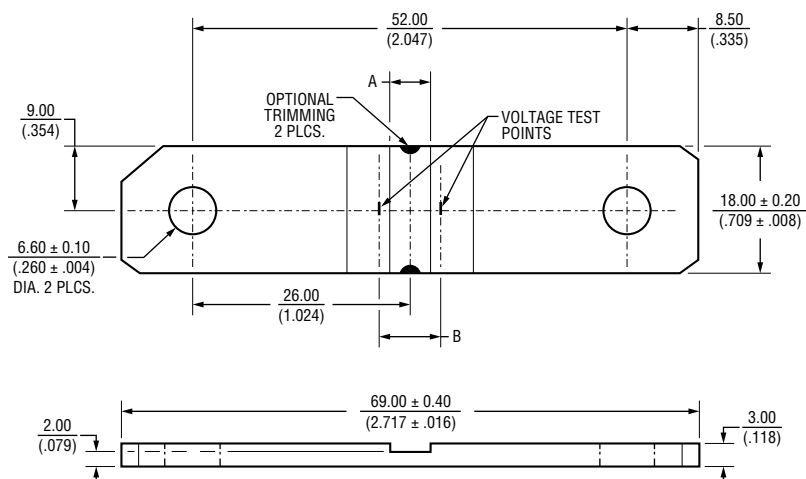
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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Model CSM2F-6918 Series Current Sense Resistor w/Bare Copper Terminals

BOURNS®

Product Dimensions



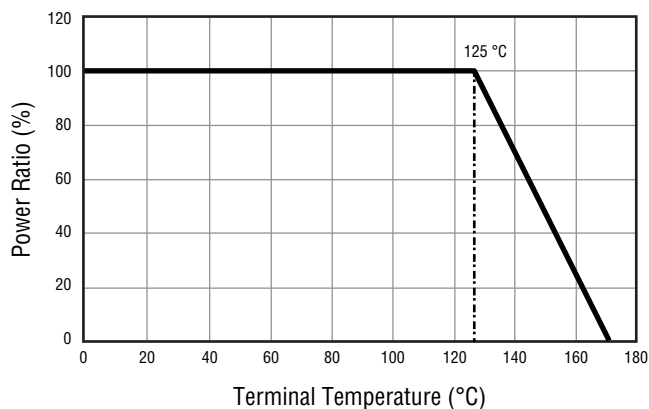
Part Number	Dim A	Dim B
CSM2F-6918-L050J00	4.70 (.185)	7.87 (.310)
CSM2F-6918-L100J00	9.40 (.370)	12.57 (.495)
CSM2F-6918-L200J00	20.0 (.787)	23.18 (.990)

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

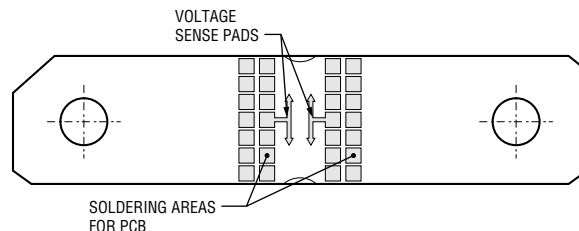
TOLERANCES: $\frac{0.25}{(.010)}$

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

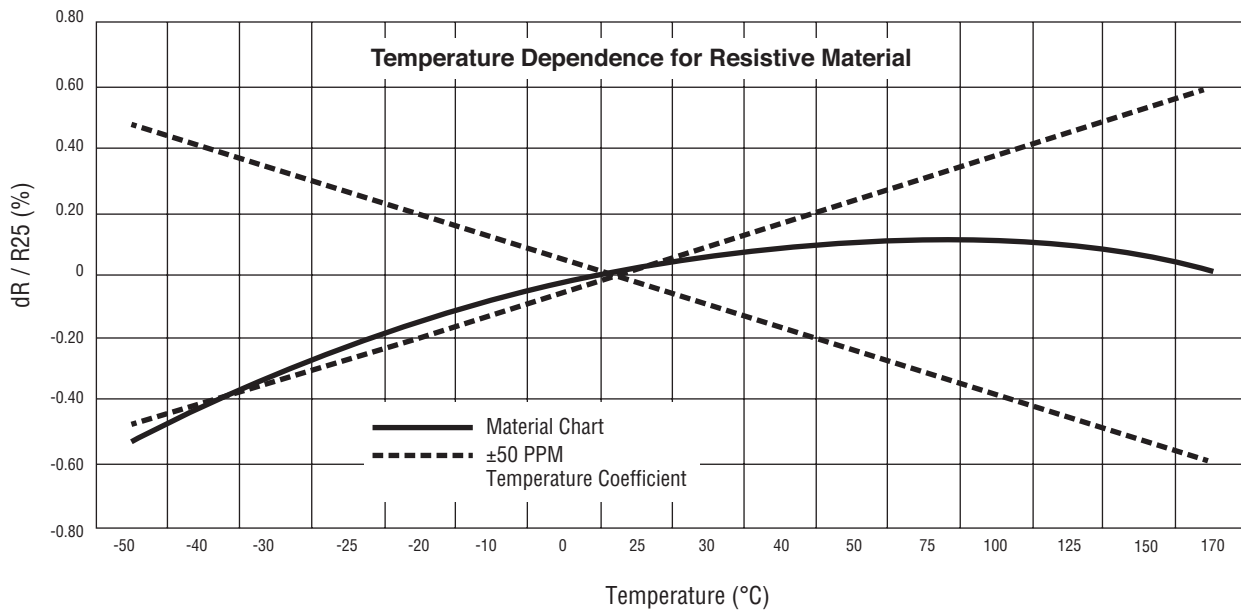
Packaging Specifications

Bulk Pack.....50 pcs. per plastic bag
100 pcs. per box
Tray Pack 52 pcs. per high impact polystyrene tray
260 pcs. per box
Size..... 246 mm x 246 mm (9.685 in. x 9.685 in.)

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