

Features

- Up to 36 W permanent power
- High pulse power rating
- Maximum fastening torque: 25 Nm
- Customized versions available
- RoHS compliant* / lead free
- AEC-Q200 compliant

Applications

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

CSM2F-6918 Series – Shunt Resistor with Sense Pins & Bare Copper Terminals

Electrical Characteristics

Characteristic	Model CSM2F-6918 with Sense Pins
Resistance Range / Power Rating @ 125 °C**	50 μΩ / 36 W 100 μΩ / 36 W 200 μΩ / 36 W
Operating Temperature Range	-40 °C ~ +170 °C
TCR on Test Points (+20 °C to +130 °C)	±100 ppm/°C for 50 μΩ ±50 ppm/°C for 100 μΩ and 200 μΩ
TCR Resistance Alloy***	< 50 ppm/°C
Inductance	< 5 nH
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 °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

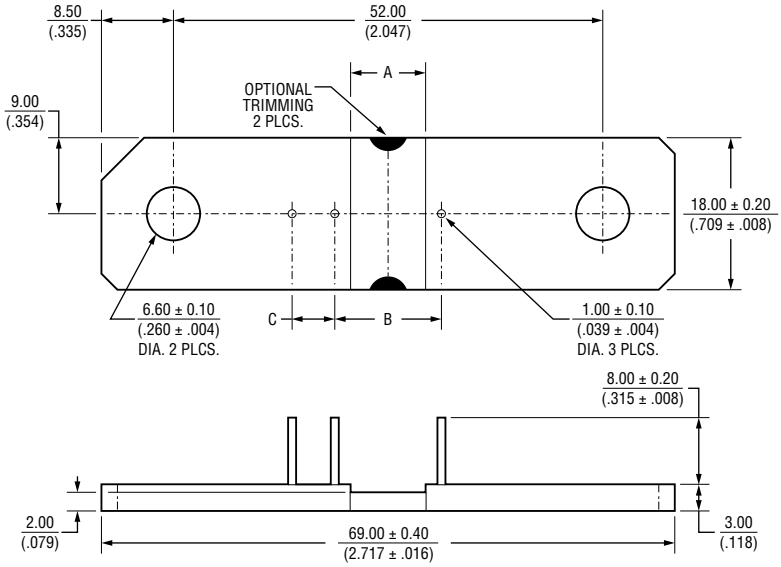
CSM 2F - 6918 - L050 J 2 0

- Model
- No. of Terminals & Style
- Size (Metric)
- Resistance Code (Milliohms)
  "L" Represents Decimal Point
  L050 = 50 MicroOhms
- Resistance Tolerance
  J = ±5 %
- Number of Pins
  2 or 3
- Surface Finishing
  0 = Bare Copper Terminals
  Plated Sense Pins

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

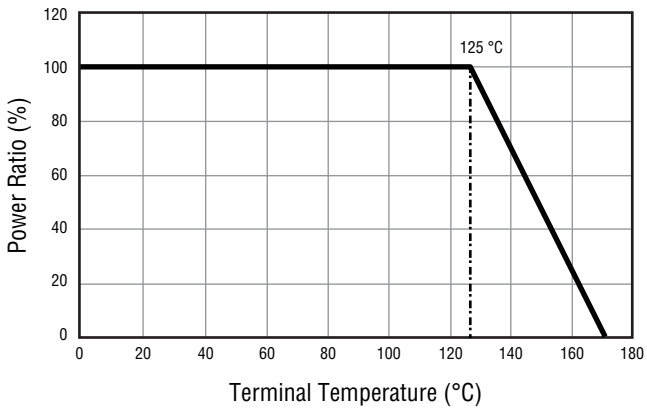


Part Number	Dim A	Dim B	Dim C
CSM2F-6918-L050J20	4.70 (.185)	7.80 (.307)	—
CSM2F-6918-L100J20	9.40 (.370)	12.50 (.492)	—
CSM2F-6918-L200J20	20.0 (.787)	23.10 (.909)	—
CSM2F-6918-L050J30	4.70 (.185)	7.80 (.307)	5.59 (.220)
CSM2F-6918-L100J30	9.40 (.370)	12.50 (.492)	5.59 (.220)
CSM2F-6918-L200J30	20.0 (.787)	23.10 (.909)	5.59 (.220)

Note: plated sense pins: Nickel barrier and 100% Sn.

DIMENSIONS: MM / (INCHES)

Power Derating Curve



General Specifications

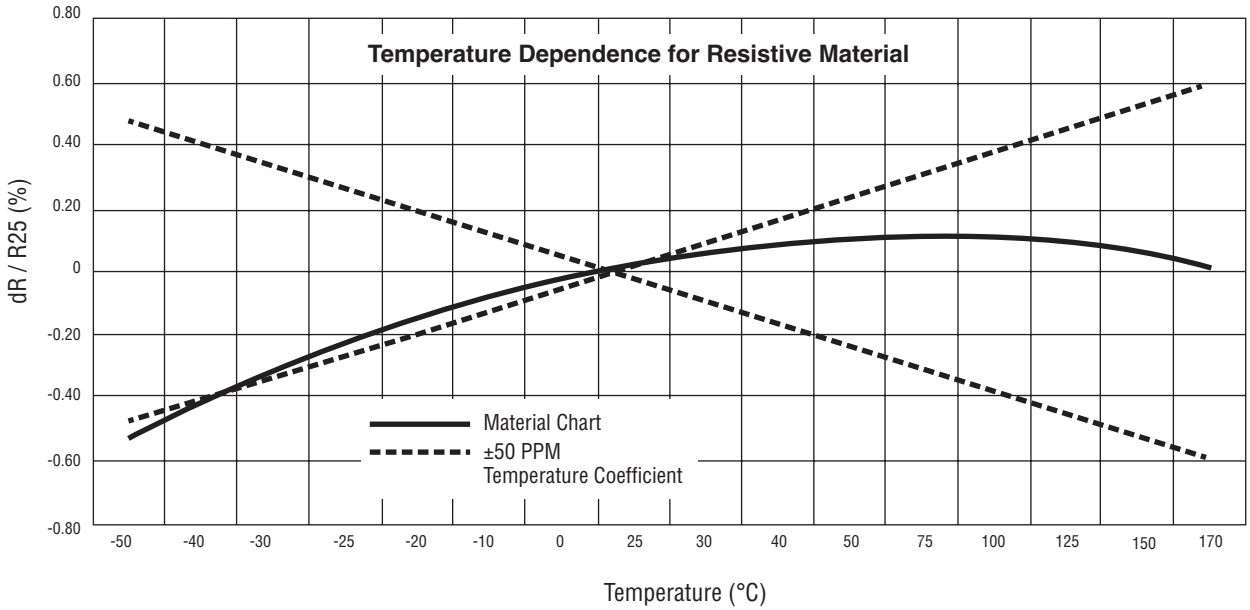
Moisture Sensitivity Level 1
ESD Classification ..... Level 6
per AEC-Q200-002,
≥ 25,000 V air discharge

Packaging Specifications

Tray Pack ..... 30 pcs. per high impact polysterene tray
210 pcs. per box
Size..... 460 mm x 320 mm (18.110 in. x 12.598 in.)

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TCR Curves



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