



Features

- Fully tinned terminals and resistive element
- Up to 50 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-7036 Series Current Sense Resistor / Fully Tinned

Electrical Characteristics

| Characteristic | Model CSM2F-7036 Series |
|---|---|
| Resistance Range / Power Rating @ 70 °C** | 25 $\mu\Omega$ / 50 W 50 $\mu\Omega$ / 50 W 100 $\mu\Omega$ / 50 W |
| Operating Temperature Range | -40 °C ~ +170 °C |
| TCR on Test Points (+20 °C to +130 °C) | ± 200 ppm/°C for 25 $\mu\Omega$ ± 150 ppm/°C for 100 $\mu\Omega$ and 200 $\mu\Omega$ |
| TCR Resistance Alloy*** | < 50 ppm/°C |
| Inductance | < 12 nH |
| Resistance Tolerance | ± 5 % |

** Terminal temperature

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

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Environmental Characteristics

| Characteristic | Test Condition | Δ TR 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 / 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 | +125 °C / 2000 hours at maximum current rating | ± 1.0 % |
| Solderability* | J-STD-002 | 95 % coverage min. |
| ESD | 25 KV \pm polarity | ± 0.5 % |

* Limited to dipping terminals

How to Order

CSM 2F - 7036 - L050 J T 2

Model _____

No. of Terminals & Style _____

Size (Metric) _____

Resistance Code (Milliohms) _____

“L” Represents Decimal Point
L025 = 25 MicroOhms
L050 = 50 MicroOhms
L100 = 100 MicroOhms

Resistance Tolerance _____
J = ± 5 %

Packaging _____
0 = Bulk Pack (50 pcs. per bag)
T = Tray Pack (30 pcs. per tray)

Surface Finishing _____
2 = Fully Tinned Terminals and Resistive Element



CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

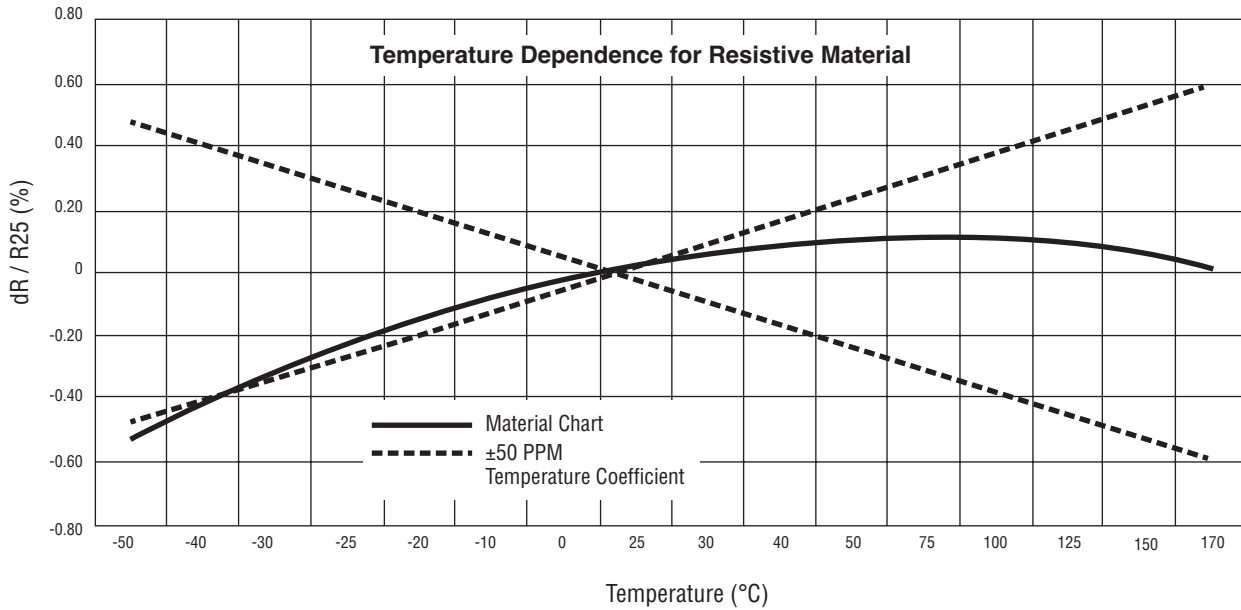
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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TCR Curves



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