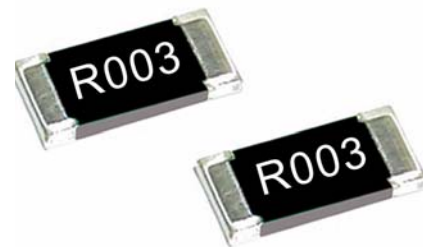


CSNL Series — Metal Foil Current Sensing Resistors

Features

- High Power Current Sense Resistors
- Low inductance – typically less than 0.1nH
- Resistances down to 0.0005 (1/2 milliΩ)
- Operating Temperature Range: -55°C – 170°C
- TCR down to ±50 ppm/°C
- Current handling to 63 amps
- Non-standard resistance values available
- RoHS compliant / lead-free available



Electrical Specifications

Type / Code	Package Type	Power Rating (Watts) @ 70°C	Dielectric Withstanding Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
					1%	5%
CSNL 1/2	1206	1W	200V	±50 ppm/°C	0.001Ω – 0.010Ω	0.001Ω – 0.010Ω
CSNL 1	2010	1.5W	200V	±50 ppm/°C	0.001Ω – 0.010Ω	0.001Ω – 0.010Ω
CSNL 2	2512	2W	200V	±50 ppm/°C	0.0005Ω – 0.022Ω	0.0005Ω – 0.022Ω

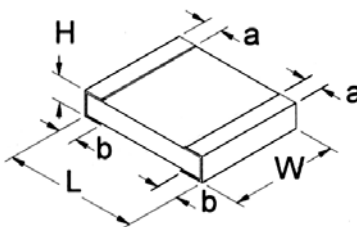
Performance Characteristics

Test	Test Specification	Typical
Moisture Resistance	±0.5%	≤0.5%
Load Life	±0.5%	≤0.5%
Leach Resistance	90 seconds min	>90 seconds
Resistance to Soldering Heat	±0.5%	≤0.25%
Solderability	min 95% coverage	≥95%
Temperature Cycling	±0.5%	≤0.5%
Thermal Shock	±0.5%	≤0.5%
Short Time Overload	±0.5%	≤0.5%
Insulation Resistance	1MΩ minimum	≥1MΩ

How to Order



CSNL Series — Metal Foil Current Sensing Resistors



Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
CSNL 1/2	3.20 ± 0.25	1.60 ± 0.10	0.60 ± 0.20	0.98 ± 0.38	0.98 ± 0.38	mm
CSNL 1	5.08 ± 0.25	2.54 ± 0.15	0.60 ± 0.20	1.67 ± 0.63	1.67 ± 0.63	mm
CSNL 2 (0.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	1.40 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (0.75mΩ)	6.35 ± 0.25	3.18 ± 0.25	1.00 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (1mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.80 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (1.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.65 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (2mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.50 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (2.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	1.00 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (3mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.70 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (3.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.71 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (4mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.60 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (4.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.58 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.50 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (5.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.47 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (6mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.50 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (6.5mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.47 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (7mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.45 ± 0.20	1.30 ± 0.30	1.30 ± 0.30	mm
CSNL 2 (10mΩ)	6.50 ± 0.35	3.20 ± 0.25	0.80 ± 0.15	1.90 ± 0.15	1.90 ± 0.15	mm
CSNL 2 (>10mΩ)	6.35 ± 0.25	3.18 ± 0.25	0.60 ± 0.20	1.93 ± 0.75	1.93 ± 0.75	mm