

CSRF Series — Foil on Ceramic Current Sensing Resistors

Features

- High Power Rating - 2W
- Low inductance – typically less than 0.2nH
- Resistance range (0.003Ω - 0.100Ω)
- RoHS compliant / lead-free
- Non-standard resistance values available
- Current handling to 40 amps
- TCR down to ±50 ppm/°C
- Operating Temperature Range: -55°C –170°C



Electrical Specifications

Type / Code	Package Type	Power Rating (Watts) @ 70°C	Dielectric Withstanding Voltage	Resistance Temperature Coefficient*	Ohmic Range and Tolerance	
					1%	5%
CSRF 2	2512	2.0W	200V	±50 ppm/°C	0.011Ω – 0.100Ω	0.011Ω – 0.100Ω
				±100 ppm/°C	0.003Ω – 0.010Ω	0.003Ω – 0.010Ω

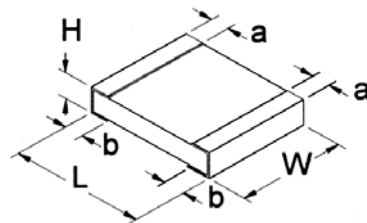
* Contact factory for values below 0.01Ω

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

Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
CSRF 2 (3mΩ – 5mΩ)	0.250 ± 0.010	0.126 ± 0.008	0.041 ± 0.006	0.075 ± 0.006	0.075 ± 0.006	inches
	6.350 ± 0.250	3.200 ± 0.200	1.050 ± 0.150	1.000 ± 0.150	1.000 ± 0.150	mm
CSRF 2 (>5mΩ)	0.250 ± 0.010	0.126 ± 0.008	0.032 ± 0.006	0.075 ± 0.006	0.075 ± 0.006	inches
	6.350 ± 0.250	3.200 ± 0.200	0.800 ± 0.150	1.000 ± 0.150	1.000 ± 0.150	mm



How to Order

CSRF		2	0.01	1%	R				
SEI Type		Code	Nominal Resistance	Tolerance	Packaging				
Type	Description	Code	Wattage	Size	Tolerance	SEI Type	Pkg Qty	Description	Code
CSRF	Foil / Ceramic	1/2	0.5	1206	1%	All	2,000	7" - Paper	R
		1	1.0	2010	5%				
		2	2.0	2512					