

- Features:
- 0402 to 2512 & 1225 sizes available
 - Power ratings to 3W
 - Low inductance – less than 0.2nH typically
 - RoHS compliant
 - Non-standard resistance values available
 - 2010 and 2512 sizes available with narrow terminations (CSRN)



Electrical Specifications						
Type / Code	Package Type	Power Rating (Watts) @ 70°C	Dielectric Withstanding Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
					1%	2%, 5%
CSR 1/8S	0402	0.125W	200V	±200 ppm/°C	0.051Ω - 1Ω	0.051Ω - 1Ω
CSR 1/8	0603	0.125W	200V	±300 ppm/°C	0.021Ω - 1Ω	0.021Ω - 1Ω
CSR 1/4	0805	0.250W	200V	±200 ppm/°C	0.01Ω - 1Ω	0.021Ω - 1Ω
CSR 1/2	1206	0.500W	200V	±100 ppm/°C *	0.01Ω - 1Ω	0.01Ω - 1Ω
CSRN 1S	0815	1.000W	200V	±300 ppm/°C ±150 ppm/°C	0.01Ω - 0.019Ω 0.02Ω - 0.5Ω	0.01Ω - 0.019Ω 0.02Ω - 0.5Ω
CSR 1	2010	1.000W	200V	±100 ppm/°C *	0.01Ω - 1Ω	0.01Ω - 1Ω
CSRN 1	2010	1.000W	200V	±250 ppm/°C	0.01Ω - 1Ω	0.01Ω - 1Ω
CSR 2	2512	2.000W	200V	±200 ppm/°C	0.01Ω - 1Ω	0.01Ω - 1Ω
CSRN 2	2512	2.000W	200V	±200 ppm/°C	0.01Ω - 1Ω	0.01Ω - 1Ω
CSR 3	1225	3.000W	200V	±200 ppm/°C ±100 ppm/°C	0.003Ω - 0.02Ω 0.021Ω - 10Ω	0.003Ω - 0.02Ω 0.021Ω - 10Ω

* Contact Factory for TCR below 50mOhm

Performance Characteristics		
Test	Test Specification	Typical
Moisture Resistance	± 0.5%	≤ 0.5%
Load Life	± 0.5%	≤ 0.5%
Leach Resistance	90 seconds minimum	> 90 seconds
Resistance to Soldering Heat	± 0.5%	≤ 0.25%
Solderability	minimum 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

Operating Temperature Range: -55°C to +155°C

How to Order

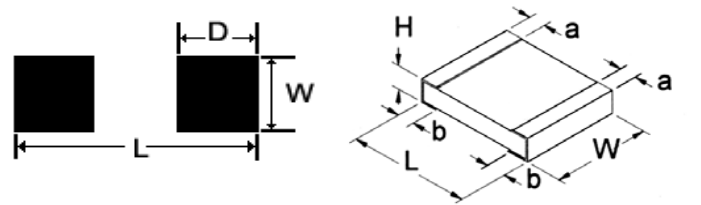
SEI Type		Code			Nominal Resistance	Tolerance	Packaging			
CSR		1/2			0.01	1%	R			
Type	Description	Code	Wattage	Size	Tolerance		SEI Types	Pkg Qty	Description	Code
CSR	Standard	1/8S	0.125W	0402	1%		1/8S	10,000	7" reel	R
CSF	Standard RoHS	1/8	0.125W	0603	2%		1/8, 1/4, 1/2	5,000		
CSRN	Narrow Terminations	1/4	0.250W	0805	5%		1, 2	4,000		
CSFN	Narrow Terminations RoHS	1/2	0.500W	1206			1S, 3	2,000		
		1S	1.000W	0815						
		1	1.000W	2010						
		2	2.000W	2512						
		3	3.000W	1225						

Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
CSR 1/8 S	0.039 ± 0.002	0.020 ± 0.002	0.013 ± 0.004	0.010 ± 0.004	0.008 ± 0.004	inches
	1.000 ± 0.050	0.500 ± 0.050	0.320 ± 0.100	0.250 ± 0.100	0.200 ± 0.100	mm
CSR 1/8	0.063 ± 0.004	0.032 ± 0.004	0.018 ± 0.004	0.012 ± 0.008	0.012 ± 0.008	inches
	1.600 ± 0.100	0.800 ± 0.100	0.450 ± 0.100	0.300 ± 0.200	0.300 ± 0.200	mm
CSR 1/4	0.079 ± 0.006	0.049 ± 0.006	0.022 ± 0.004	0.012 ± 0.008	0.016 ± 0.010	inches
	2.000 ± 0.150	1.250 ± 0.150	0.550 ± 0.100	0.300 ± 0.200	0.400 ± 0.250	mm
CSR 1/2	0.120 ± 0.006	0.061 ± 0.006	0.022 ± 0.004	0.020 ± 0.012	0.016 ± 0.010	inches
	3.050 ± 0.150	1.550 ± 0.150	0.550 ± 0.100	0.500 ± 0.300	0.400 ± 0.250	mm
CSRN 1S	0.079 ± 0.008	0.148 ± 0.008	0.024 ± 0.004	0.016 ± 0.008	0.016 ± 0.008	inches
	2.000 ± 0.200	3.750 ± 0.200	0.600 ± 0.100	0.400 ± 0.200	0.400 ± 0.200	mm
CSR 1	0.197 ± 0.008	0.100 ± 0.008	0.020 ± 0.006	0.068 ± 0.006	0.067 ± 0.006	inches
	5.000 ± 0.200	2.540 ± 0.200	0.508 ± 0.150	1.720 ± 0.150	1.702 ± 0.150	mm
CSRN 1	0.197 ± 0.008	0.097 ± 0.006	0.024 ± 0.006	0.024 ± 0.012	0.020 ± 0.010	inches
	5.000 ± 0.200	2.450 ± 0.150	0.600 ± 0.150	0.600 ± 0.300	0.508 ± 0.250	mm
CSR 2	0.252 ± 0.008	0.126 ± 0.008	0.020 ± 0.006	0.075 ± 0.006	0.075 ± 0.006	inches
	6.401 ± 0.200	3.200 ± 0.200	0.508 ± 0.150	1.905 ± 0.150	1.905 ± 0.150	mm
CSRN 2 (10-99 milliohm)	0.250 ± 0.008	0.124 ± 0.006	0.029 ± 0.004	0.024 ± 0.012	0.022 ± 0.010	inches
	6.350 ± 0.200	3.150 ± 0.150	0.740 ± 0.100	0.600 ± 0.300	0.550 ± 0.250	mm
CSRN 2 (100-1000 milliohm)	0.250 ± 0.008	0.124 ± 0.006	0.029 ± 0.004	0.024 ± 0.012	0.107 ± 0.004	inches
	6.350 ± 0.200	3.150 ± 0.150	0.740 ± 0.100	0.600 ± 0.300	2.700 ± 0.100	mm
CSR 3	0.122 ± 0.006	0.248 ± 0.006	0.035 ± 0.006	0.024 ± 0.012	0.022 ± 0.010	inches
	3.100 ± 0.150	6.300 ± 0.150	0.900 ± 0.150	0.600 ± 0.300	0.550 ± 0.250	mm

Solder Pad Dimensions

Type / Code	L Total Length	W Total Width	D Pad Depth	Units
CSR 1/8 S	0.05	0.03	0.02	inches
	1.30	0.80	0.40	mm
CSR 1/8	0.08	0.04	0.03	inches
	2.10	1.10	0.70	mm
CSR 1/4	0.11	0.06	0.04	inches
	2.70	1.40	1.00	mm
CSR 1/2	0.16	0.07	0.06	inches
	4.00	1.80	1.40	mm
CSRN 1S	0.15	0.18	0.06	inches
	3.80	4.50	1.50	mm
CSR 1	0.25	0.11	0.07	inches
	6.40	2.70	1.80	mm
CSRN 1	0.25	0.14	0.06	inches
	6.40	3.60	1.40	mm
CSR 2	0.31	0.15	0.10	inches
	8.00	3.75	2.50	mm
CSRN 2	0.31	0.15	0.10	inches
	8.00	3.75	2.50	mm
CSR 3	0.20	0.30	0.08	inches
	5.08	7.60	2.00	mm



CSR3 (1225)

4 Terminal Bottom

