

- 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 ¹ (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 ¹	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 ¹	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 ²	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 - 3Ω	0.003Ω - 0.02Ω 0.021Ω - 3Ω

¹ Contact factory for TCR on values below 0.05Ω.

² Power rating is 1.5W if ambient exceeds 80°C and terminal exceeds 105°C.

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

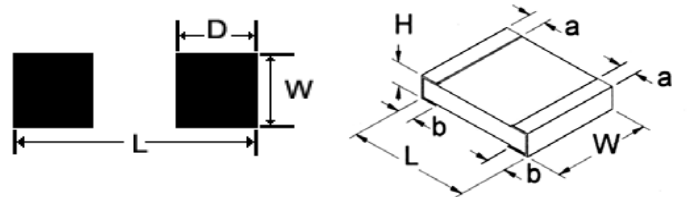
SEI Type		Code		Nominal Resistance	Tolerance	Packaging				
CSR		1/2		0.01	1%	R				
Type	Description	Code	Wattage	Size	Tolerance		SEI Types	Pkg Qty	Description	Code
CSR	Standard	1/8S	0.125W	0402		1%	1/8S	10,000	7" reel	R
CSRN	Narrow Terminations	1/8	0.125W	0603		2%	1/8, 1/4, 1/2	5,000		
		1/4	0.250W	0805		5%	1, 2	4,000		
		1/2	0.500W	1206		1S, 3	2,000			
		1S	1.000W	0815		1, 2	5,000	13" reel	G	
		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 ± 0.004	0.020 ± 0.004	0.014 ± 0.004	0.006 ± 0.004	0.006 ± 0.004	inches
	0.991 ± 0.102	0.508 ± 0.102	0.35 ± 0.102	0.152 ± 0.102	0.152 ± 0.102	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 ± 0.102	0.813 ± 0.102	0.457 ± 0.102	0.305 ± 0.203	0.305 ± 0.203	mm
CSR 1/4	0.079 ± 0.008	0.049 ± 0.008	0.016 ± 0.004	0.016 ± 0.008	0.016 ± 0.008	inches
	2.006 ± 0.203	1.245 ± 0.203	0.406 ± 0.102	0.406 ± 0.203	0.406 ± 0.203	mm
CSR 1/2	0.120 ± 0.006	0.063 ± 0.008	0.020 ± 0.006	0.020 ± 0.012	0.016 ± 0.010	inches
	3.048 ± 0.152	1.600 ± 0.203	0.508 ± 0.152	0.510 ± 0.304	0.406 ± 0.254	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	0.610 ± 0.102	0.400 ± 0.200	0.400 ± 0.200	mm
CSR 1	0.197 ± 0.008	0.100 ± 0.008	0.020 ± 0.006	0.067 ± 0.006	0.067 ± 0.006	inches
	5.003 ± 0.203	2.540 ± 0.203	0.508 ± 0.152	1.702 ± 0.152	1.702 ± 0.152	mm
CSRN 1	0.197 ± 0.006	0.100 ± 0.006	0.024 ± 0.004	0.024 ± 0.012	0.020 ± 0.010	inches
	5.004 ± 0.152	2.540 ± 0.152	0.610 ± 0.102	0.610 ± 0.305	0.508 ± 0.254	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 ± 0.203	3.200 ± 0.203	0.508 ± 0.152	1.905 ± 0.152	1.905 ± 0.152	mm
CSRN 2	0.246 ± 0.006	0.121 ± 0.006	0.023 ± 0.004	0.023 ± 0.012	0.020 ± 0.010	inches
	6.248 ± 0.152	3.073 ± 0.152	0.584 ± 0.102	0.584 ± 0.305	0.508 ± 0.254	mm
CSR 3	0.125 ± 0.005	0.250 ± 0.005	0.030 ± 0.005	0.023 ± 0.012	0.020 ± 0.010	inches
	3.180 ± 0.127	6.350 ± 0.127	0.900 ± 0.127	0.584 ± 0.305	0.508 ± 0.254	mm

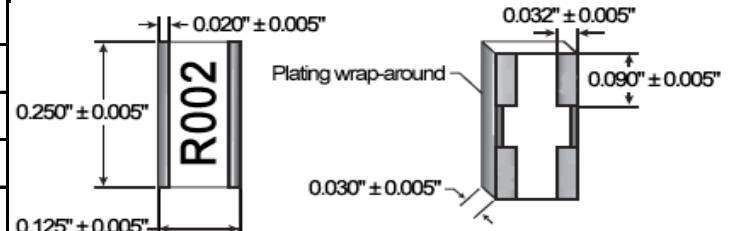
Solder Pad Dimensions

Type / Code	L Total Length	W Total Width	D Pad Depth	Units
CSR 1/8 S	0.049	0.025	0.015	inches
	1.25	0.63	0.38	mm
CSR 1/8	0.060	0.035	0.020	inches
	1.50	0.90	0.50	mm
CSR 1/4	0.099	0.059	0.055	inches
	2.50	1.50	1.40	mm
CSR 1/2	0.158	0.079	0.071	inches
	4.00	2.00	1.80	mm
CSRN 1S	0.149	0.177	0.059	inches
	3.80	4.50	1.50	mm
CSR 1	0.258	0.130	0.071	inches
	6.54	3.30	1.80	mm
CSRN 1	0.250	0.145	0.055	inches
	6.35	3.68	1.40	mm
CSR 2	0.315	0.158	0.079	inches
	8.00	4.00	2.00	mm
CSRN 2	0.315	0.158	0.055	inches
	8.00	4.00	1.40	mm
CSR 3	0.20	0.30	0.080	inches
	5.08	7.60	2.00	mm



CSR3 (1225)

4 Terminal Bottom



Power Derating Curve

