CSR Series

Power Current Sense Chip Resistor



- **Resistances from 0.5 mOhm to 100 mOhm**
- **Power Rating up to 3 Watts**
- **Resistance Tolerances to ± 0.5%**
- **TCR's to ±50 ppm/°C**
- **Sizes: 1206 / 2010 / 2512**
- **Low Inductance (< 5nH)**

SPECIFICATIONS

Type	Power Rating (W) at 80°C	Resistances (mΩ)	TCR (ppm/°C)	Tolerances	Operating Temperature Range	MAX Operating Voltage
CSR1206	1	0.5 - 10	±50 ±200 (0.5mΩ)	0.5%[3] 1% 3% 5%	-55°C to +170°C	√(P*R)
CSR2010	1.5	0.5 - 10	±50 ±100 (0.5mΩ)			
CSR2512	1	0.5, 0.75, 1, 1.5, 2	±50			
		15 - 100				
		6, 6.5, 7, 10, 11, 12, 13, 14	±75			
		4, 5, 10	±100			
		2.5, 3	±150			
CSR2512A[1]	2	0.5, 0.75, 1, 1.5, 2 6.5, 7, 8, 9, 10,	±50			
		15 - 100				
		6, 6.5, 7, 10, 11, 12, 13, 14	±75			
		4, 5, 10	±100			
		2.5, 3	±150			
CSR2512B[2]	2.5	4, 4.5, 5, 6	±50			
CSR2512C[2]	3	0.5, 0.75	±100			
		10 - 14	±75			
		1, 1.5, 2, 3,	±50			
		15 - 100				

[1] 6.5, 7, 8, 9 mΩ at 50ppm have green coating
[2] All values under 10 **m**Ω have green coating
[3] 0.5% applies to 15**m**Ω and above

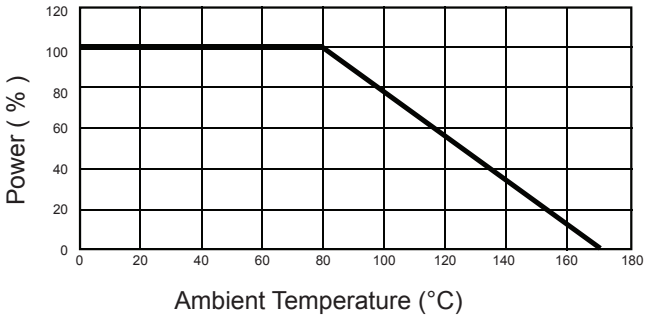
Riedon Inc. 300 Cypress Avenue Alhambra CA 91801 (626) 284-9901 (626) 284-1704
www.riedon.com

CSR Series

Power Current Sense Chip Resistor

Specifications

Power Derating Curve



Test	Specification		Test Method
	Black Coating	Green Coating	
Temperature Coefficient of Resistance	As Spec.		+25/-55/+25/+125/+25°C
Short Time Overload	±1.0%	±1.0%	5x rated power for 5 seconds
Load Life	±1.0%	±1.0%	70±2°C, Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Dry Heat	±1.0%	±1.0%	at +170°C for 1000 hrs
Solderability Terminal Finish = Nickel Tin	95% min. coverage		245±5°C for 3 seconds
Resistance to Soldering Heat	±0.5%	±1.0%	260±5°C for 10 seconds
Thermal Shock	±0.5%	±(0.5%+0.05Ω)	-55°C ~ 150°C, 100 cycles
Resistance Elements	0.5mOHM to 3mOHM Manganese, Copper 3.5mOHM to 10mOHM Aluminum, Iron, Chromium		

*Green Coating can't be used in solder bath

Reel Sizes	Type	Quantity
CSR1206	Embossed Tape	2000
CSR2010		
CSR2512*		

*10 mΩ & above is 4Kpc/T&R

Ordering Information

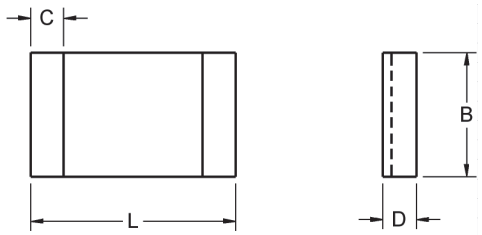
Part Description: Part Type - Resistance - Tolerance - TCR
Example: CSR2512 1mOhm 1% 50ppm

Riedon Inc. 300 Cypress Avenue Alhambra CA 91801 (626) 284-9901 (626) 284-1704
www.riedon.com

CSR Series

Power Current Sense Chip Resistor

Specifications



Part	Power Rating	Resistance Value	L (mm)	B (mm)	D (mm)	C (mm)
CSR1206	1	0.5	3.20±0.25	1.60±0.10	0.60±0.20	1.35±0.25
CSR1206	1	0.75	3.20±0.25	1.60±0.10	0.60±0.20	1.23±0.25
CSR1206	1	1, 4, 5, 6	3.20±0.25	1.60±0.10	0.60±0.20	1.10±0.25
CSR1206	1	2, 3, 10	3.20±0.25	1.60±0.10	0.60±0.20	0.60±0.25
CSR1206	1	7, 8, 9	3.20±0.25	1.60±0.10	0.60±0.20	0.90±0.25
CSR2010	1.5	0.5	5.08±0.25	2.54±0.15	0.60±0.20	2.17±0.25
CSR2010	1.5	0.75	5.08±0.25	2.54±0.15	0.60±0.20	2.04±0.25
CSR2010	1.5	1	5.08±0.25	2.54±0.15	0.60±0.20	1.84±0.25
CSR2010	1.5	2, 6, 7, 8	5.08±0.25	2.54±0.15	0.60±0.20	1.54±0.25
CSR2010	1.5	3	5.08±0.25	2.54±0.15	0.60±0.20	1.04±0.25
CSR2010	1.5	4, 5	5.08±0.25	2.54±0.15	0.60±0.20	1.84±0.25
CSR2010	1.5	9, 10	5.08±0.25	2.54±0.15	0.60±0.20	1.29±0.25
CSR2512	1	0.5	6.35±0.254	3.18±0.254	1.25±0.20	1.30±0.38
CSR2512	1	0.75	6.35±0.254	3.18±0.254	0.75±0.20	1.30±0.38
CSR2512	1	1	6.35±0.254	3.18±0.254	0.65±0.20	1.30±0.38
CSR2512	1	1.5	6.35±0.254	3.18±0.254	0.45±0.20	1.30±0.38
CSR2512	1	2	6.35±0.254	3.18±0.254	0.35±0.20	1.30±0.38
CSR2512	1	2.5	6.35±0.254	3.18±0.254	0.65±0.20	1.30±0.38
CSR2512	1	3	6.35±0.254	3.18±0.254	0.55±0.20	1.30±0.38
CSR2512	1	4	6.35±0.254	3.18±0.254	0.45±0.20	1.30±0.38
CSR2512	1	5	6.35±0.254	3.18±0.254	0.35±0.20	1.30±0.38
CSR2512	1	6	6.35±0.254	3.18±0.254	0.32±0.20	1.30±0.38
CSR2512	1	6.5	6.35±0.254	3.18±0.254	0.30±0.20	1.30±0.38
CSR2512	1	7	6.35±0.254	3.18±0.254	0.27±0.20	1.30±0.38
CSR2512 CSR2512A CSR2512C	1 to 3	10 - 100	6.40±0.25	3.20±0.25	0.70±0.20	0.90±0.30
CSR2512 w/ Green Coating	1 to 3	0.5	6.35±0.25	3.00±0.20	0.60±0.20	2.68±0.25
CSR2512 w/ Green Coating	1 to 3	0.75	6.35±0.25	3.00±0.20	0.60±0.20	2.48±0.25
CSR2512 w/ Green Coating	1 to 3	1, 5, 6	6.35±0.25	3.00±0.20	0.60±0.20	1.93±0.25
CSR2512 w/ Green Coating	1 to 3	1.5, 6.5, 7	6.35±0.25	3.00±0.20	0.60±0.20	1.43±0.25
CSR2512 w/ Green Coating	1 to 3	2, 3	6.35±0.25	3.00±0.20	0.60±0.20	1.18±0.25
CSR2512 w/ Green Coating	1 to 3	4, 4.5	6.35±0.25	3.00±0.20	0.60±0.20	2.18±0.25

Riedon Inc. 300 Cypress Avenue Alhambra CA 91801 (626) 284-9901 (626) 284-1704
www.riedon.com