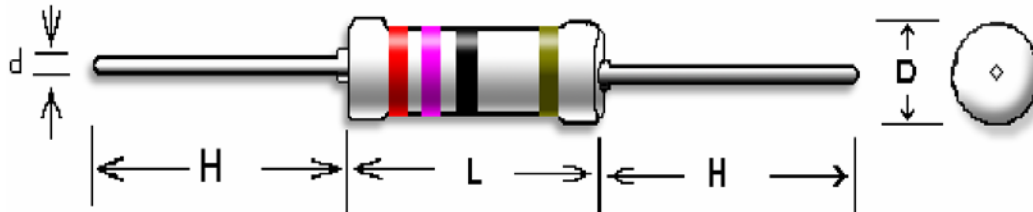


CSR - Current Sense Resistor

Features

Using our proprietary StrongHold™ technology (patent pending), CSR series offers a better reliability than regular low-ohm resistors. Lead-free tin plated deoxygenized copper wire provides stable value of resistor during operation. Flame-proof coating available.



Dimensions:

Type No.	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000Pcs
CSR16	3.2±1.0	1.9±0.2	28±3.0	0.45±0.02	145 Grams
CSR20	3.2±1.0	1.9±0.2	28±3.0	0.45±0.02	145 Grams
CSR25	6.5±1.0	2.4±0.2	26±3.0	0.55±0.03	220 Grams
CSR51	8.8±1.0	3.2±0.2	26±3.0	0.60±0.03	340 Grams
CSR100	12.0±1.0	4.5±0.5	26±3.0	0.70±0.03	600 Grams
CSR200	13.5±1.0	5.0±0.5	30±3.0	0.8±0.03	1050 Grams
CSR300	15.5±1.0	5.5±0.5	30±3.0	0.8±0.03	1200 Grams
CSR400	19.0±1.0	6.0±0.5	30±3.0	0.8±0.03	1620 Grams
CSR500	19.0±1.0	8.0±0.5	30±3.0	0.8±0.03	3100 Grams

General Specifications:

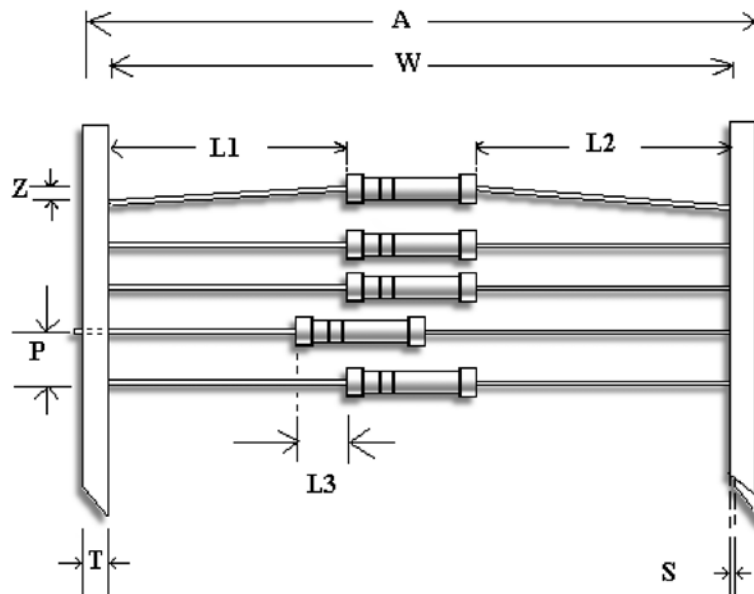
Type No.	Power Rating At 70°C	Max. Working Voltage	Max. Overload Voltage	Min. Resistance	Max. Resistance	Resistance Tolerance	Standard Resistance Values
CSR16	1/6W	200V	400V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR20	1/4W	200V	400V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR25	1/3W	200V	400V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR51	1/2W	250V	500V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR100	1W	250V	500V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR200	2W	300V	600V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR300	3W	350V	700V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR400	4W	350V	700V	10mΩ	510mΩ	±1%~5%	E-24/E-96
CSR500	5W	500V	1000V	10mΩ	510mΩ	±1%~5%	E-24/E-96

Special sizes, values, and specifications not listed available on special order.

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CSR - Current Sense Resistor

Taping/Packing Specifications:

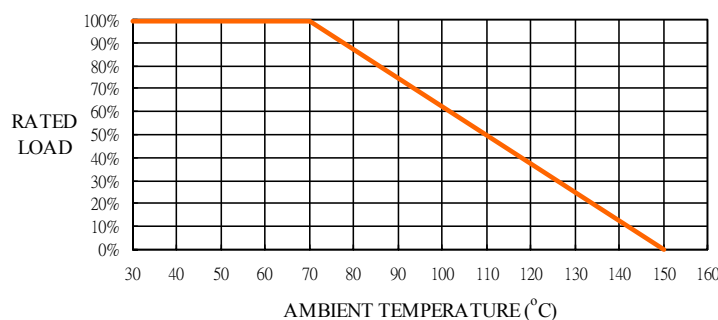


Unit (mm)

Type No.	A Max.	L1-L2 (Max.)	L3 (Max.)	P ±0.5	S (Max.)	T ±0.5	W ±1.5	Z (Max.)
CSR16	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
CSR20	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
CSR25	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
CSR51	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
CSR100	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
CSR200	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2
CSR300	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2
CSR400	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2
CSR500	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2

Type No.	Packing	CSR16/20/25	CSR51	CSR100	CSR200	CSR300	CSR400	CSR500
Minimum Packing QTY (pcs)	Reel	5000	3000	2000	1000	1000	1000	1000
	Ammo pack	5000	2000	1000	500	500	500	400

POWER DERATING CURVE



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CSR - Current Sense Resistor

Technical Summary:

Characteristics	Limits	
Dielectric Withstanding Voltage, VAC or DC	CSR16/20	300
	CSR25	500
	CSR51	700
	CSR100/200/300/400/500	1000
Temperature Coefficient, PPM / °C	±100, 200, 300, & other specified	
Operating Temperature Range, °C	-55 ~ +150	
Insulation Resistance, MΩ	>10 ⁴	
Voltage Coefficient, PPM / V	<25	

Performance Specifications

Tests Characteristics	Test Conditions	Limits
Short Time Overload	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±1%, 2%: ±0.75% ±5%: ±2%
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±3%
Load Life 1,000 hours	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±3%
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±1%
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.
Vibration	MIL-STD-202 Method 204 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	±1%
Terminal Endurance	IEC 60115-1 4.25.3 1000 hours at 125°C without load	±1%
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +125°C 30minutes, 5 cycles	±2%

Ordering Information

Type	Tolerance	Temperature Coefficient	Resistance Value	Packaging	Special Request (Optional)
CSR100 CSR200	J (5%)	TK100	10K	B TR	LV (Low value)

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