CRS SMD Shunt Resistor



Avaliable in two sizes ARCOL's CRS utilises Electron Beam Welding technology to connect its Manganin or NiCr element to heavy copper connectors. Suitable for typical applications such as Solar Inverters, Frequency converters & current sensors for hybrid power sources.



- Excellent long-term stability and low inductance
- Suitable for mounting using re-flow soldering or welding on copper
- Power rating upto 7 Watts

Characteristics

Moisture resistance:

Tolerance (Code): \pm 1% (F), \pm 5% (J) Operating temperature: -55° C to $+170^{\circ}$ C

Overload: 5 times rated power for 5 seconds

Thermal shock: $\pm 0.1\%$. -65°C,25°C,125°C,25°C, 25 cycles Load life: $\pm 1\%$. 90min. "ON", 30min "OFF" for 2000 hours

Resistance to Soldering Heat: ±0.2% 350°C for 30 seconds or 250°C for 10min.

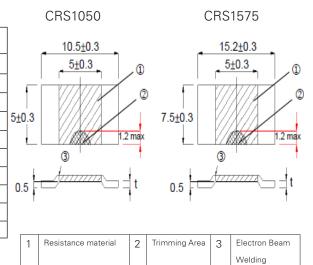
±0.2% 90~98%RH, +25°C, +65°C, -10°C, 10 cycles.

High Temperture Exposure: $\pm 0.2\%$ 140°C for 250 hours Vibration, High frequency: $\pm 0.2\%$ 15g 10~2000Hz, 36 cycles

Inductance <3nH

Dimensions (mm)

Size	Value	Material	Thickness (t)	
CRS1050	0.5mΩ	Manganin	0.88mm±0.1	
CRS1050	1mΩ	Manganin	0.43mm±0.1	
CRS1050	2mΩ	NiCr alloy	0.64mm±0.1	
CRS1050	3mΩ	NiCr alloy	0.43mm±0.1	
CRS1050	4mΩ	NiCr alloy	0.32mm±0.1	
CRS1575	$0.2 m\Omega$	Manganin	1.50mm±0.1	
CRS1575	$0.5.m\Omega$	Manganin	0.56mm±0.1	
CRS1575	1mΩ	NiCr alloy	0.90mm±0.1	
CRS1575	$2 m \Omega$	NiCr alloy 0.45mm		
CRS1575	3mΩ	NiCr alloy 0.30mm±0		



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The information contained herein does not form part of a contract and is subject to change without notice. ARCOL operate a policy of continual product development, therefore, specifications may change.

It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask ARCOL.

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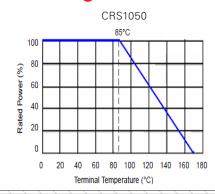
CRS SMD Shunt Resistor

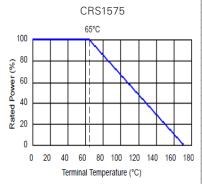


Electrical Specifications

Туре	Wattage	Resista	nce Range	TCR	
	(Rated Power)	F(±1%)	J(±5%)	(PPM/°C) (+20°C~+150°C)	
CRS1050	5	R0005	(0.5mΩ)	±75	
CRS1050	4	R001	(1mΩ)	±60	
CRS1050	4	R002	2 (2mΩ)	±100	
CRS1050	3	R003	3 (3mΩ)	±100	
CRS1050	2.5	R004	l (4mΩ)	±100	
CRS1575	7	R0002	(0.2mΩ)	±50	
CRS1575	6	R0005	(0.5mΩ)	±100	
CRS1575	6	R001	(1mΩ)	±120	
CRS1575	4	R002	2 (2mΩ)	±120	
CRS1575	3.5	R003	3 (3mΩ)	±120	

Derating Curve





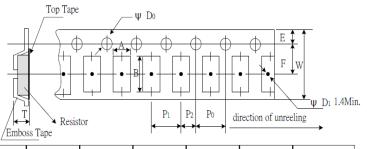
Ordering Procedure

<u>Standard Resistor:</u> Series, Resistance Value, Tolerance, TCR, Packaging (TR: Tape & Reel, B:

e.g: CRS1050 R001 J 60ppm TR

Packaging





Туре	А	В	W	Е	F	P0	P1	P2	ØD0	Т	Quanitity
											(EA)
CRS1050	5.7	11.2	16	1.75	7.5	4	12	6	1.50	1.2	3000
CRS1575	8.2	16.1	24	1.75	11.5	4	12	6	1.50	1.9	2000

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