

Metal Alloy Small-Resistance Resistor



Product Specification: SR() &+) W Type



FEATURES :

- ◆ Ideal for all types of current sensing, voltage division and Pulse applications including switching and linear power Supplies, Instruments, power amplifiers.
- ◆ Proprietary processing technique produces extremely low Resistance values.
- ◆ High-temperature performance (up to +275°C)
- ◆ Very low inductance 0.5nH to 5nH
- ◆ Excellent frequency response
- ◆ Low thermal EMF (<1uV/°C)
- ◆ Lead(Pb)-free construction is RoHS-compliant

1. Standard Electrical Specifications :

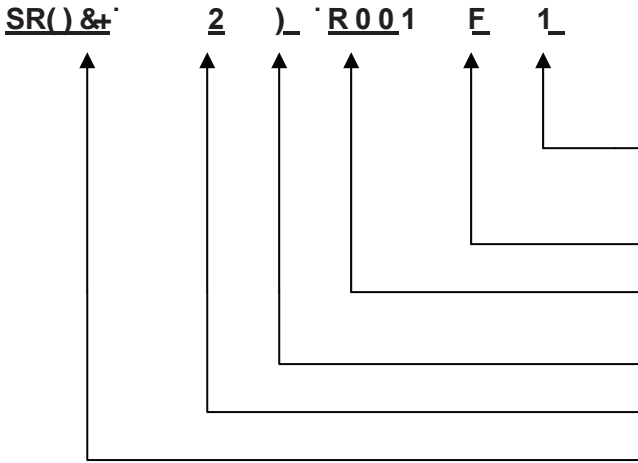
Model	Power Rating at 100 °C (Watts)	Resistance Range mΩ		
		0.5%(D)	1.0%(F)	5.0%(J)
SR4527-25	5.0	10~100	0.5~100	0.5~100

5 Watts with total solder pad trace size of 625mm²

2. Technical Specifications :

Parameter	Unit	SR2512-21 (mΩ)
Temperature Coefficient	ppm /°C	0.5~3= +50
		4~6.9= -25
		7~100= -15
Operating Temperature Range	°C	-65 ~ + 275
Maximum Working Voltage	V	(P × R) ^{1/2}

Ordering Information :



Packing
 1=Tape & Reel ; B=Bulk Pack
 1=1,000 Pcs

Tolerance
 D=±0.5% ; F=±1.0% ; J=±5.0%

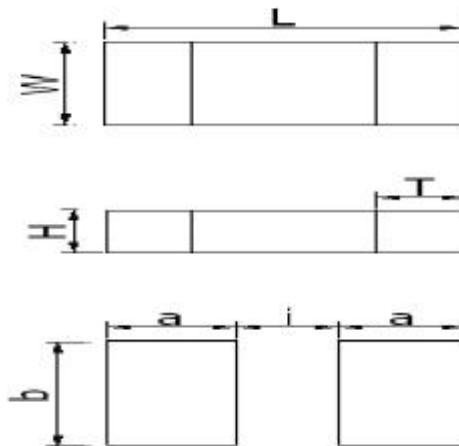
Resistance
 EX : R001=1mΩ ; R010=10mΩ

Power Rating (Watts)

Number of Terminals

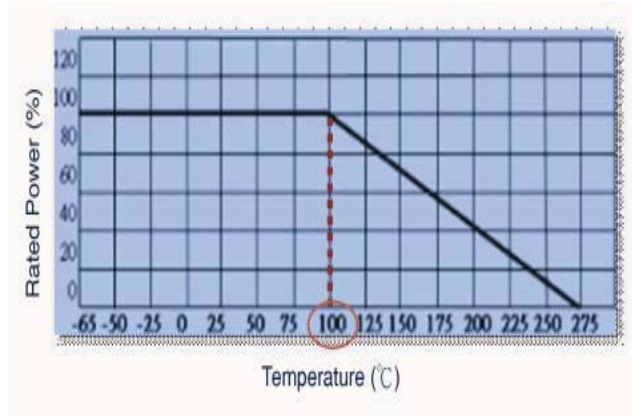
Model (Size)

3. Dimensions :



Model	DIMENSIONS - in inches (millimeters)				
	Resistance Range mΩ	L	W	H	T
SR4527-25	0.5 ~ 3	0.45±0.01 (11.6±0.254)	0.26±0.010 (6.75±0.254)	0.05±0.010 (1.50±0.254)	0.074±0.010 (1.90±0.254)
	5 ~100	0.45±0.010 (11.6±0.254)	0.26±0.010 (6.75±0.254)	0.05±0.010 (1.50±0.254)	0.074±0.010 (1.90±0.254)
Model	SOLDER PAD DIMENSIONS - in inches (millimeters)				
	Resistance Range mΩ	a	b	i	
SR4527-25	0.5 ~3.0	0.18(4.8)	0.34(8.7)	0.21(5.5)	
	3 ~ 10	0.13(3.4)	0.34(8.7)	0.32(8.3)	
Remark : 5 Watts with total solder pad trace size of 625 mm ²					

4. Power Derating Curve :

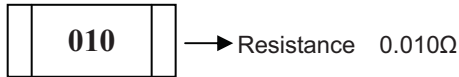


5. Performance :

Test Item	Conditions of test	Test Method	Test Limits
Short Time Overload	1W 5x rated power for 5 seconds	JIS C5202 5.5	$\pm(0.5\%+0.0005\Omega)\Delta R$
Resistance to Solder Heat	Solder temp./immersion time:260±5°C ,10±1secs and 350±10°C ,3.5±0.5secs	JIS C5202 6.4	$\pm(0.5\%+0.0005\Omega)\Delta R$
Solderability test	Steam aging:4 hrs, cool down 30 minutes then test	JIS C5202 6.5	95% coverage
Vibration	Frequency varied 55Hz in one minute , 3 directions , 12 hours	JIS C5202 6.7	$\pm(0.5\%+0.0005\Omega)\Delta R$
Resistance to solvent	Immersion time:60±5 secs,20°C ~25 °C	JIS C5202 6.9	$\pm(0.5\%+0.0005\Omega)\Delta R$
Mechanical Shock	100 grams for 6 milliseconds, 5 pulses	JIS C5202 6.13	$\pm(0.5\%+0.0005\Omega)\Delta R$
Low Temperature Storage	-55°C for 1000 hours	JIS C5202 7.1	$\pm(0.5\%+0.0005\Omega)\Delta R$
High Temperature Exposure	1000 hours @ + 155°C	JIS C5202 7.2	$\pm(1.0\%+0.0005\Omega)\Delta R$
Thermal Shock	- 55 °C to + 125 °C , 1000 cycles , 15 minutes at each extreme	JIS C5202 7.4	$\pm(0.5\%+0.0005\Omega)\Delta R$
Moisture Resistance	Mil-STD-202 , Method 106 , 0% power , 7a and 7b not required	JIS C5202 7.6	$\pm(0.5\%+0.0005\Omega)\Delta R$
Bias Humidity	+ 85°C , 85% RH, 10% Bias, 1000 hours,90 minutes "ON",30 minutes "OFF"	JIS C5202 7.9	$\pm(0.5\%+0.0005\Omega)\Delta R$
Load Life	1000 hours @ rated power, + 100°C , 1.5 hours "ON" , 0.5 hours "OFF"	JIS C5202 7.10	$\pm(1.0\%+0.0005\Omega)\Delta R$

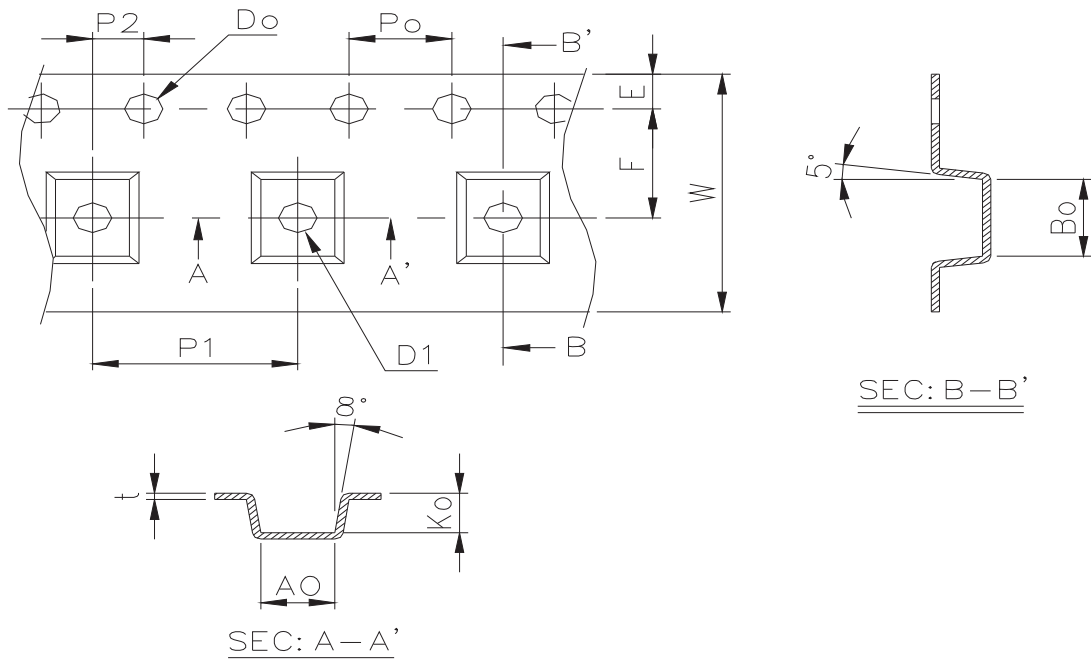


6. Marking :



7. Packaging :

Model	Reel			
	Tape Width	Diameter	Pieces/Reel	Code
SR4527	12mm/Embossed Plastic	178mm/7"	1,000	1



Unit: mm

Item	W	P1	E	F	Do	D1	P0	Po*10	P2	Ao	Bo	Ko	t
Spec.	12.00	8.00	1.75	5.50	1.50	1.50	4.00	40.00	2.00	3.90	6.74	1.08	0.24
Tole.	±0.10	±0.10	±0.10	±0.05	+ 0.10 - 0.00	±0.10	±0.05	±0.10	±0.05	±0.10	±0.10	±0.05	±0.05