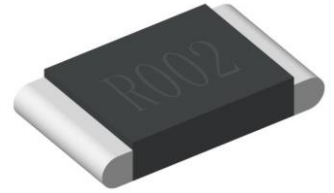


Epoxy SMD Chip E-Beam Welding Alloy Resistor

- Electron-beam welding craf, pure copper electrode , Ideal solution for current detection applications
- high reliability and stability, superb pulse load capability
- Coating with heat-resistant epoxy resin, excellent weather resistance
- Ultra-low thermal EMF
- Ultra-low parasitic inductance, fast response, suitable for high frequency AC current detection
- RoHS compliant



GENERAL SPECIFICATIONS

Model	Resistance Value (mΩ)	Rated Power (70°C)	Material	T.C.R (ppm/°C)	Tolerance	Inductance	Thermal EMF (0-100°C)	Temp. Range
RSMP4527	1~6	12W	M, K	±75	±1 (F)	< 5nH	< 1μV/°C	-55°C ~ +170°C
	7~100		M, K	±50	±5 (J)			

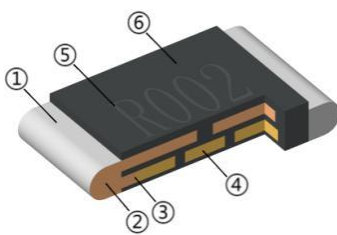
CHARACTERISTICS

Test Item	Standard	Test method
T.C.R	Within specified T.C.R	IEC60115-1 4.8, measured point 20°C~+130°C, reference point +20°C
Solderability	Minimum 95%	IEC60115-1 4.17, 245°C tin bath, 3s
Short time overload	$\Delta R \pm 1\%$	IEC60115-1 4.13, five times rated power, 5s
Resistance to soldering heat	$\Delta R \pm 0.5\%$	IEC60115-1 4.18, 260°C tin bath, maintaining 10s
Base plate bending test	Within specified value	IEC60115-1 4.33, 2mm, maintaining 60+5s
Flammability	Incomplete combustion, with the shim unignited and the pine wood board not charred	UL-94 V-0 or V-1 is acceptable, no need to do electrical test
Insulation resistance	Minimum 1000MΩ	IEC60115-1 4.6, Applying a direct current voltage of 100V between the electrode and the substrate., maintaining 60s, then test insulation resistance value
Withstand voltage	without breaking down or arc flash	IEC60115-1 4.7, Applying an AC VOLTS which the effective value is the maximum load voltage to the electrode and substrate at a rate of approximately 100V/s, maintaining it for 60±5s.
Solvent resistance	Signage intact	IEC60115-1 4.29, IPA, temperature of a solvent : 23±5°C , maintaining 5±0.5min

CHARACTERISTICS

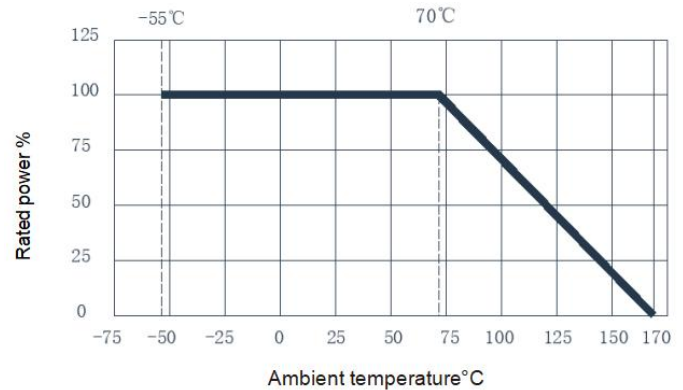
Test Item	Standard	Test method
High temp. & humidity	$\Delta R \pm 1\%$	Applying 10% of the rated power (current) or the maximum current of the component (whichever is lower) for a duration of 1000 hours in a temperature of 85° C and a humidity of 85% according to MIL-STD-202 method 103
High temp. storage	$\Delta R \pm 0.5\%$	IEC60115-1 4.25.3, 1000hours @170°C, without loading current and voltage
Low temp. load	$\Delta R \pm 0.5\%$	IEC60115-1 4.36, cooled from room temperature to -55°C, no load for 1.5 hours, applying rated power, continuously flowing for 45 minutes, cool for 15 minutes, then recover to room temperature for testing again.
Temperature cycle	$\Delta R \pm 1\%$	IEC60115-1 4.19, -55°C @30mins ~ +155°C @30mins ; 1000 cycles
Load life	$\Delta R \pm 1\%$	IEC 60115-1 4.25.1, 1000hrs., 70°C $\pm$ 2°C, rated current, or the maximum current rating of the component (whichever is lower) is applied for 1.5 hours/0.5 hour interruption

Construction

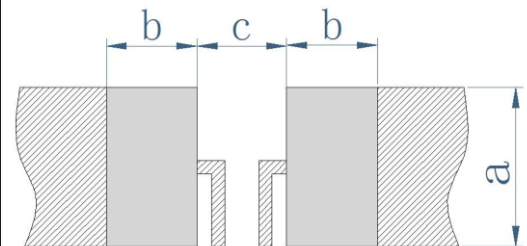
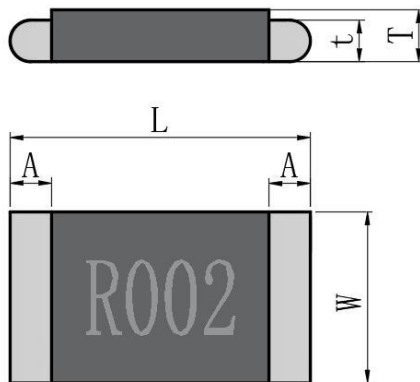


- ① Ni and Sn plating on the surface of red copper
- ② Pure red copper terminal
- ③ Electron-beam welding
- ④ Manganese/Karma
- ⑤ Laser marking
- ⑥ Epoxy resin

Derating curve

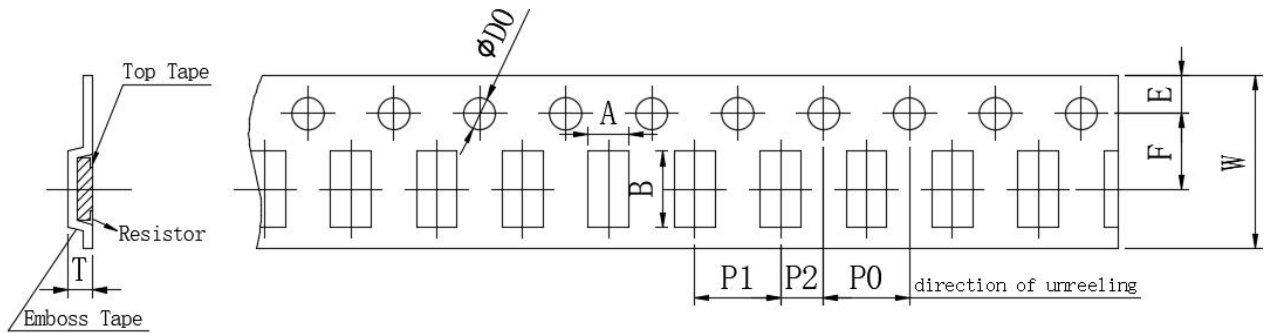


DIMENSIONS & RECOMMENDED PAD AND SIZE [mm]

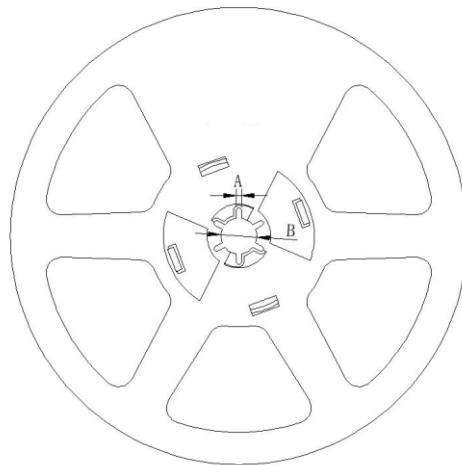


L	W	A	t	T	a	b	c
11.6 $\pm$ 0.5	6.6 $\pm$ 0.5	1.6 $\pm$ 0.5	1.6 $\pm$ 0.1	2 $\pm$ 0.2	8.7	3.4	8

Packing specifications and size [mm]



A	B	W	E	F	P0	P1	P2	ØD0	T	Qty
7.4	11.8	24	1.75	11.5	4	12	2	1.5	2.3	500



Reel Type	W	M	A	B	D
7" reel for 24mm tape	25±1.0	Φ178±2.0	2.0±0.5	Φ13.5±0.5	Φ60.0±1.0

ORDERING PROCEDURE EXAMPLE

Model#	Material	Resistance value	Tolerance	Packing code
RSMP4527	K : Karma M : Manganese copper	R002 = 2mΩ R020 = 20mΩ	F = ±1% J = ±5%	T0 : Tape & Reel standard B0 : without tape and reel