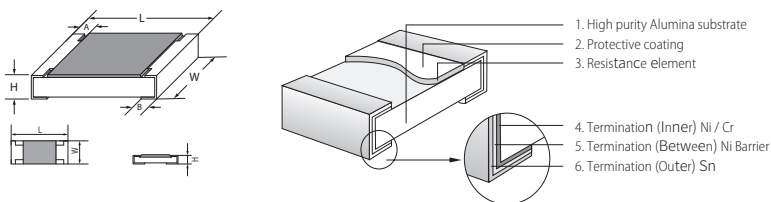


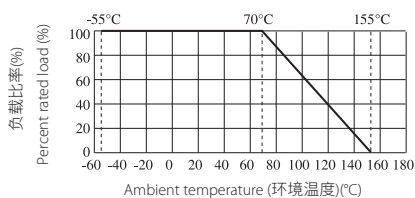
Feature

- High power rating up to 6 watts
- Suitable for both wave & re-flow soldering
- Application LED lamps, Intelligent home appliances, Medical equipment, Kinds of industrial control devices & Industrial supplies
- AEC-Q200 Qualified

Figures



Derating Curve & Specification



Type	L(mm)	W(mm)	H(mm)	A(mm)	B(mm)
SP10 (2010)	5.00 ± 0.10	2.50 ± 0.15	1.10 ± 0.10	0.60 ± 0.25	0.50 ± 0.20
SP12 (2512)	6.35 ± 0.10	3.20 ± 0.15	1.10 ± 0.10	0.60 ± 0.25	1.80 ± 0.20
SP17 (2817)	7.10 ± 0.20	4.20 ± 0.20	1.10 ± 0.10	0.60 ± 0.20	1.80 ± 0.20
SP20 (4320)	11.00 ± 0.30	5.00 ± 0.25	1.10 ± 0.10	0.80 ± 0.20	2.40 ± 0.20
SP27 (4527)	11.60 ± 0.30	6.85 ± 0.25	1.10 ± 0.10	1.00 ± 0.20	2.50 ± 0.20

Type	Size	Power Rating	Resistance Range of 1% & 5%	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Operating Temperature
SP10	2010 (5025)	2W	1Ω ~ 10MΩ	200V	500V	500V	-55°C~155°C
SP12	2512 (6432)	3W		250V	500V	500V	
SP17	2817 (7142)	4W		250V	500V	500V	
SP20	4320 (1150)	5W		300V	600V	600V	
SP27	4527 (1267)	6W		300V	600V	600V	

Performance Specifications

Test Item	Test Methods	Evaluation Criteria
Temperature coefficient	Measure between -55°C ~+155°C	1Ω~10Ω ≤± 200PPM/°C 10.1Ω~10MΩ ≤± 100PPM/°C
Short-time overload	2.5x Rated voltage or Max. Overload Voltage whichever is lower for 5 seconds, then check the resistance.	± 5% (2.0% + 0.1Ω) ± 1% (1.0% + 0.1Ω)
Terminal Bending	Bending Distance 3mm, Duration: 60s±5s, then check the resistance.	± (1.0% + 0.05Ω)
Solderability	Temperature of solder: 245±3°C; Dwell time in solder: 2~3seconds.	Coverage must be over 95%.
Soldering heat	Dip the resistor into a temperature of 260 ±5°C and hold it for a 10±1 seconds.	± (1.0%+0.05Ω)
Dielectric withstanding voltage	Resistor shall be clamped in the trough of 90° metallic V-block and shall be tested at AC potential respectively specified in the given list of each product type for 60~70s.	No evidence of flashover, mechanical damage, arcing or insulation breakdown
Rapid change of temperature	30 min at -55 °C and 30 min at 155 °C; 100 cycles	± 5% (1.0% + 0.1Ω). ± 1% (0.5% + 0.1Ω).
Load life	70°C, at RCWV or Max.Working Voltage whichever less,1,000 hours(1.5 hours "ON", 0.5 hours"OFF"), Measurement at 24±4 hours after test conclusion.	± 5% (3.0% + 0.1Ω). ± 1% (1.0% + 0.1Ω).
	MIL-STD-202 Method 108	
Humidity (Steady State)	Temporary resistance change after 240 hours exposure in a humidity test chamber controlled at 40±2°C and 90~95% RH.	± 5% (3.0% + 0.1Ω) . ± 1% (0.5% + 0.1Ω)
Load life in humidity	Resistance change after 1000 hours (1.5hours"ON", 0.5hours"OFF") at RCWV or Max.Working Voltage whichever less in a humidity test chamber controlled at 40±2°C and 90~95% RH.	± 5% (3.0% + 0.1Ω) . ± 1% (1.0% + 0.1Ω)

Ordering Procedure (Example: SP12 3W (2512) ±1% 10Ω T/R-2,000)

