RX27-1

Ceramic-Cased Power Wirewound Resistors

Product Introduction

• Features: axial leads, compact size and high power loading. The ceramic casing is flame-retardant; this is an insulated-type resistor.

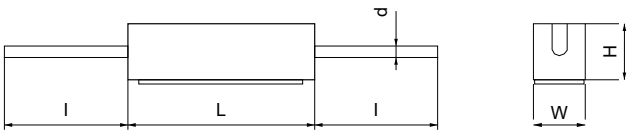
• Applications: printed circuit board mounting; generally used in DC or low-frequency AC circuits.

• Non-inductive products can be supplied by agreement; prefix the model with “N”.

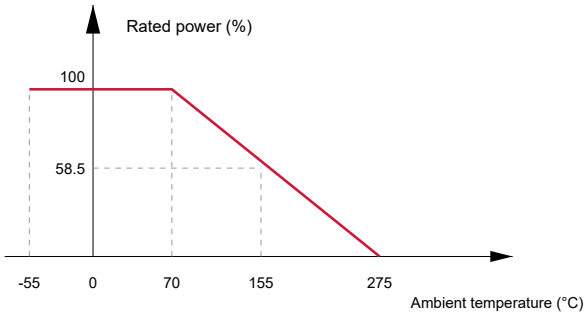
• Products compliant with RoHS and REACH requirements can be manufactured.



Outline Dimensions



Power Derating Curve



Ordering Example

Model: RX27-1

Rated power: 10W

Nominal resistance: 10Ω

Resistance tolerance: ±5%

Quantity: 1000 pieces

Ratings & Dimensions

Model	Rated power (W)	Resistance range (Ω)	Dimensions (mm)				
			L	W±1	H±1	l	d±0.1
RX27-1-3W	3	1.8 ~ 390	22±1	8	8	25±3	Φ0.8
RX27-1-5W	5			9.5	9.5		
RX27-1-7W	7	3.3 ~ 910	35±1				
RX27-1-10W	10	3.9 ~ 1.5K	48±2				
RX27-1-15W	15	5.1 ~ 1.6K		12.5	12.5		
RX27-1-20W	20	5.1 ~ 2.4K	63±2			20±3	

Main Test Items

Test item	Test conditions	Performance requirements	Test standard
Voltage withstand	Voltage: 1000Vac; 1min; V-block method	No breakdown or flashover	GB/T 5729-1985, Clause 4.7
Resistance change with temperature	Lower category temperature: (-55±3)℃; upper category temperature: (+155±2)℃	>10Ω: ±250ppm/℃; 5 ~ 10Ω: ±500ppm/℃; ≤5Ω: not specified	GB/T 5729-1985, Clause 4.8
Overload	10 times rated power for 5s	ΔR≤± (2%R+0.1Ω)	GB/T 5732-1985, Clause 2.3.4
Terminal strength	Tensile force: 20N; 10s	ΔR≤± (1%R+0.05Ω)	GB/T 2423.29-1982
Solderability	Bath temperature: (235±5)℃; immersion time: (2±0.5)s	Uniform tin wetting and free flow	GB/T 2423.28-1982
Resistance to soldering heat	Bath temperature: (350±10)℃; immersion time: (3.5±0.5)s	ΔR≤± (1%R+0.05Ω)	GB/T 2423.28-1982
Rapid temperature change	Temperature range: (-55 ~ +125)℃; 5 cycles	ΔR≤± (2%R+0.1Ω)	GB/T 2423.22-1981
Shock	Acceleration: 490m/s²; duration: 11ms; half-sine pulse	ΔR≤± (2%R+0.1Ω)	GB/T 2423.05-1981
Vibration	Frequency: (10 ~ 55)Hz; acceleration: 10g; 6h	ΔR≤± (2%R+0.1Ω)	GB/T 2423.06-1981
Endurance at 70℃	Ambient temperature: (70±2)℃; rated power; 1.5h on; 0.5h off; 1000h	ΔR≤± (10%R+0.1Ω)	GB/T 5729-1985, Clause 4.25.1
Endurance at upper category temperature	Ambient temperature: 155℃; 58.5% rated power; 1.5h on; 0.5h off; 1000h	ΔR≤± (5%R+0.1Ω) Insulation resistance ≥1GΩ	GB/T 5729-1985, Clause 4.25.3
Accidental overload test (flame retardancy)	Power: 5, 10 and 16 times rated power; duration: 5min (or until open circuit)	No open flame or burning	SJ 3272-1990, Clause 4.2.2