RX27-5/5G Ceramic-Cased Power Wirewound Resistors

Product Introduction

• Product features: Leads exit from the same side; compact size and high power loading. Ceramic housing, flame-retardant construction; insulated-type resistor.

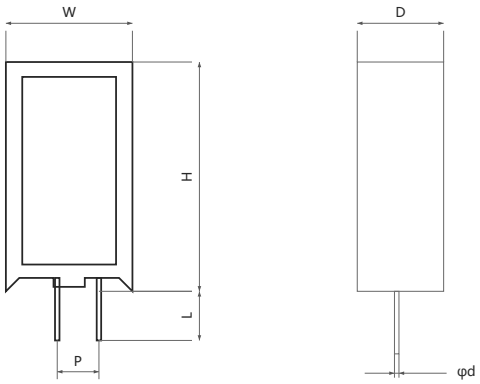
• Applications: Vertical mounting on printed circuit boards; generally used in DC or low-frequency AC circuits.

• Non-inductive products are available by agreement; add "N" before the model.

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



Dimensions



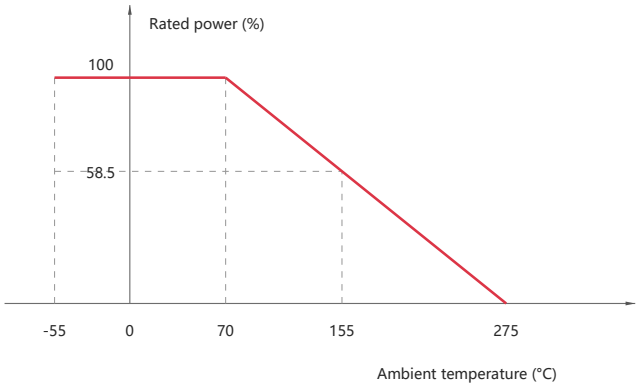
Specifications

Model	Rated power (W)	Resistance range (Ω)	Dimensions (mm)					
			W±1	D±1	H±1.5	L±1.5	p±1	d±0.1
RX27-5-5W	5	1.5 ~ 390	13	9	25.5	5	5	Φ0.8
RX27-5-7W	7	1.5 ~ 510			39			
RX27-5-10W	10	1.5 ~ 680		9.5	50			
RX27-5-20W	20	1.5 ~ 910	20	10			10	
RX27-5G-10W	10	1.5 ~ 680	16	12	35	10	7	

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)°C; upper category temperature: (+155±2)°C	>10Ω: ±250ppm/°C; 5～10Ω: ±500ppm/°C; ≤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)°C; 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)°C; immersion time: (3.5±0.5)s	ΔR≤±(1%R+0.05Ω)	GB/T 2423.28-1982
Rapid temperature change	Temperature range: (-55～+125)°C; 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°C	Ambient temperature: (70±2)°C; 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°C; 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

Power Derating Curve



Ordering Example

Model	Rated power	Nominal resistance	Resistance tolerance	Quantity
RX27-5	10W	10Ω	±5%	1000 pieces