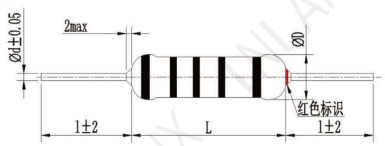
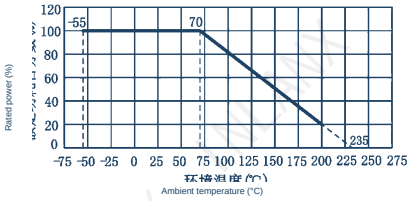
RY21B Power Metal Oxide Film Resistor

Outline Drawing



Derating Curve





Grades YG and J; QB available. Detail specification Q/RU 243-2014; YG additionally QZJ 84061; general specification GB/T 5729-2003.

Dimensions • mm

Drawing marks lead length l±2 mm, Φd±0.05 mm, 2max and red identification mark.

Power W	ΦD	L	Φd	Lead l
0.5	2.5±0.2	6.6±0.3	0.6	26
1	3.6±0.3	9.6±0.9	0.7	28
2	4.0±0.5	12.5±0.5	0.8	26
3	5.9±0.6	15.9±1.1	0.8	26
5	8.4±0.6	24.7±0.8	0.8	33

Electrical Specifications

Resistance temperature coefficient ±350 ×10□□/K.

Power W	Resistance Ω	Tolerance %	Limit V	Withstand V	TCR ×10□□/K
0.5	0.1–1M	10–510kΩ: ±1, ±2, ±5; others ±5	400	500	±350
1	0.1–1M	As 0.5W	500	700	±350
2	0.1–1M	As 0.5W	500	700	±350
3	0.1–1M	As 0.5W	500	700	±350
5	1–510k	As 0.5W	600	800	±350

Main Inspection Items

Item	Test method	Requirement
Dielectric withstand	V-block, 60±5s, rated voltage	No breakdown/arcing
Solderability	235±5°C, 2±0.5s	Free solder flow and lead wetting
Rapid temperature change	-55 to 200°C, 5 cycles	ΔR≤±(1%R+0.05Ω)
Overload	min(2.5UR,2Umax), 5s	ΔR≤±(1%R+0.05Ω)
Lead strength	Pull 10N; bend twice; twist 180°, twice	ΔR≤±(1%R+0.05Ω)
Soldering heat	350±10°C, 3.5±0.5s	ΔR≤±(1%R+0.05Ω)
Climatic sequence	High 200°C 16h; damp 25–55°C 24h; low -55°C 2h; low pressure 8.5kPa 1h; damp 24h	ΔR≤±(5%R+0.1Ω)
Electrical endurance	70±2°C, min(UR,Umax), 1000h	ΔR≤±(5%R+0.1Ω)
Vibration	10–500Hz, min(0.75mm,98m/s²), 6h	ΔR≤±(1%R+0.05Ω)
Damp heat	40±2°C, RH93±3%, 56d	ΔR≤±(5%R+0.1Ω)
Upper-category endurance	U=√(20%PR), 200°C, 1000h	ΔR≤±(5%R+0.1Ω)
Flame resistance	Flame method, 15s, 5 times	Afterflame <10s

Ordering Information

RY21B-1W-100Ω-F

RY21B / power / nominal resistance / tolerance code F±1%, G±2%, J±5%.