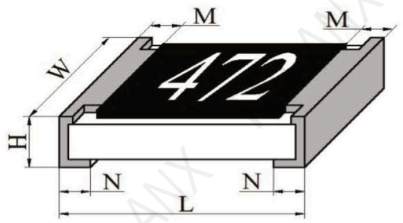
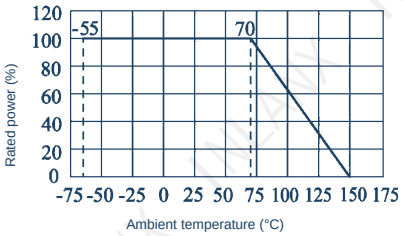
RI Thin Film Chip Fixed Resistors

Outline Drawing



Derating Curve





Quality grade: inverted triangle G mark, J. Generic specification: GB/T 5729-2003. Detail specification: first 7 types, Q/RU 012A-2012.

Outline Dimensions • mm

Model	L	W	H	M	N
RI1005S (RI0402S)	1.00±0.15	0.50±0.10	0.35±0.10	0.25±0.10	0.25±0.10
RI1608S (RI0603S)	1.60±0.15	0.80±0.15	0.50±0.15	0.30±0.15	0.30±0.15
RI2125S (RI0805S)	2.00±0.20	1.25±0.20	0.55±0.10	0.40±0.20	0.30±0.10
RI3216S (RI1206S)	3.20±0.20	1.60±0.20	0.60±0.10	0.50±0.20	0.40±0.10
RI3225S (RI1210S)	3.20±0.20	2.50±0.20	0.60±0.20	0.50±0.25	0.50±0.25
RI5025S (RI2010S)	5.00±0.20	2.50±0.20	0.60±0.20	0.60±0.25	0.60±0.25
RI6332S (RI2512S)	6.30±0.20	3.20±0.20	0.60±0.20	0.60±0.25	0.60±0.25

Power Ratings and Limiting Voltage

Model	Normal W	Uprated W	Limit V
RI1005	1/32	1/16	50
RI1608	1/16	1/10	50
RI2125	1/10	1/8	100
RI3216	1/8	1/4	200
RI3225	1/4	1/2	200
RI5025	1/2	1	200
RI6332	1	1.5	200

Resistance Range and Temperature Coefficient

Model	Nominal resistance	TCR ×10^-6/K	Tolerance %
RI1005	49.9 Ω~12 kΩ	±5	±0.05, ±0.1
RI1005	10 Ω~69.8 kΩ	±10	±0.1, ±0.5
RI1005	10 Ω~100 kΩ	±25, ±50	±0.1, ±0.5
RI1608	24.9 Ω~15 kΩ	±5	±0.05, ±0.1
RI1608	10 Ω~332 kΩ	±10, ±25, ±50	±0.1, ±0.5
RI2125	24.9 Ω~30 kΩ	±5	±0.05, ±0.1
RI2125	10 Ω~1 MΩ	±10, ±25, ±50	±0.1, ±0.5
RI3216	24.9 Ω~50 kΩ	±5	±0.05, ±0.1
RI3216	10 Ω~1 MΩ	±10, ±25, ±50	±0.1, ±0.5
RI3225	10 Ω~1 MΩ	±10, ±25, ±50	±0.1, ±0.5
RI5025	10 Ω~1 MΩ	±10, ±25, ±50	±0.1, ±0.5

RI Thin Film Chip Fixed Resistors

Resistance Range and Temperature Coefficient (continued)

Model	Nominal resistance	TCR ×10^-6/K	Tolerance %
RI6332	10 Ω~1 MΩ	±10, ±25, ±50	±0.1, ±0.5

Main Inspection Items

UR/IR: rated voltage/current; Umax: limiting element voltage.

Item	Non-zero requirement	Test method
Temperature coefficient	M±5、N±10、Q±25、R±50×10^-6/K	-55℃ to 125℃
Rapid temperature change	ΔR≤±(1%R+0.05 Ω)	-55℃ to 125℃, 5 cycles
Overload	ΔR≤±(1%R+0.05 Ω)	2.5UR (≤2Umax), 5 s
Resistance to soldering heat	ΔR≤±(1%R+0.05 Ω)	260℃, 10 s
End-face coating adhesion	ΔR≤±(1%R+0.05 Ω)	Bend 1 mm, (5±1) s
Damp heat, steady state	ΔR≤±(5%R+0.1 Ω)	40℃, RH (93±3)%, 56 d
Climatic sequence	ΔR≤±(1%R+0.05 Ω)	125℃/16 h; cyclic damp heat 24 h; -55℃/2 h; cyclic damp heat 5 d; DC load 1 min
Endurance at 70℃	ΔR≤±(5%R+0.1 Ω)	70℃, UR (≤Umax), 1000 h
Solderability	Electrode solder coverage 90%	Unaged, 235℃, 2 s

Ordering Information

RI1608SN472BP

Model / S (uprated power, when required) / TCR / E24 or E96 nominal resistance / Tolerance / Termination P (lead-containing) or N (lead-free).

TCR: M±5、N±10、Q±25、R±50×10^-6/K. Tolerance: D±0.5%, B±0.1%, W±0.05%.