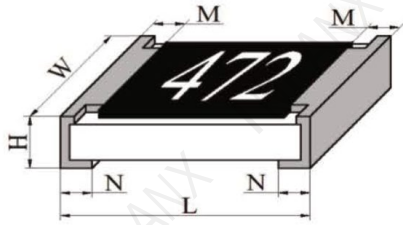
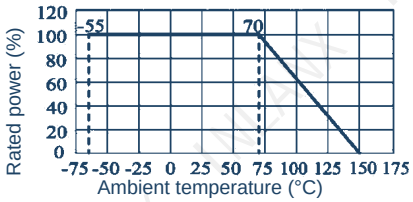
RI Thick Film Chip Fixed Resistors

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. RI3263: Q/RU 476-2012; RI4225: Q/RU 366-2010; RIG6308: Q/RU 447-2011.

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
RI3263	3.20±0.15	6.30±0.30	1.00±0.25	0.50±0.25	0.60±0.25
RI4225	4.20±0.20	2.50±0.20	1.05±0.15	0.70±0.20	1.20±0.15
RIG6308	6.30±0.20	3.20±0.20	0.90±0.20	0.60±0.25	1.00±0.20

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
RI3263	3	—	200
RI4225	1	—	200
RIG6308	2	—	200

Resistance Range and Temperature Coefficient

Model	Nominal resistance	TCR ×10^-6/K	Tolerance %
RI1005	50 mΩ~500 mΩ	±500	±1, ±2, ±5
RI1005	500 mΩ~1 Ω	±200, ±250	±1, ±2, ±5
RI1005	1 Ω~22 MΩ	±100, ±200, ±250, ±500	±1, ±2, ±5
RI1005	22 MΩ~100 MΩ	±500	±1, ±2, ±5
RI1608	20 mΩ~300 mΩ	±500	±1, ±2, ±5

RI Thick Film Chip Fixed Resistors

Resistance Range and Temperature Coefficient (continued)

Model	Nominal resistance	TCR ×10^-6/K	Tolerance %
RI1608	300 mΩ~1 Ω	±200, ±250	±1, ±2, ±5
RI1608	1 Ω~22 MΩ	±100, ±200, ±250, ±500	±1, ±2, ±5
RI1608	22 MΩ~100 MΩ	±500	±1, ±2, ±5
RI2125	20 mΩ~200 mΩ	±500	±1, ±2, ±5
RI2125	200 mΩ~1 Ω	±200, ±250	±1, ±2, ±5
RI2125	1 Ω~22 MΩ	±100, ±200, ±250, ±500	±1, ±2, ±5
RI2125	22 MΩ~100 MΩ	±500	±1, ±2, ±5
RI3216 / RI3225 / RI5025 / RI6332	10 mΩ~100 mΩ	±500	±1, ±2, ±5
RI3216 / RI3225 / RI5025 / RI6332	100 mΩ~1 Ω	±200, ±250	±1, ±2, ±5
RI3216 / RI3225 / RI5025 / RI6332	1 Ω~22 MΩ	±100, ±200, ±250, ±500	±1, ±2, ±5
RI3216 / RI3225 / RI5025 / RI6332	22 MΩ~100 MΩ	±500	±1, ±2, ±5
RI3263	8.2 Ω~1 MΩ	±250, ±500	±1, ±2, ±5
RI4225	1 Ω~10 MΩ	±100, ±200, ±500	±1, ±2, ±5
RIG6308	10 Ω~1 MΩ	±100, ±200, ±500	±1, ±2, ±5

Main Inspection Items

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

Item	Non-zero requirement	Zero-ohm	Test method
Temperature coefficient	S±100、Z±200、U±250、V±500×10^-6/K	—	-55℃ to 125℃
Rapid temperature change	ΔR≤±(1%R+0.05 Ω)	Rmax≤50 mΩ	-55℃ to 125℃, 5 cycles
Overload	ΔR≤±(1%R+0.05 Ω)	Rmax≤50 mΩ	Non-zero: 2.5UR (≤2Umax), 5 s; zero-ohm: 2.5IR, 5 s
Resistance to soldering heat	ΔR≤±(1%R+0.05 Ω)	Rmax≤50 mΩ	260℃, 10 s
End-face coating adhesion	ΔR≤±(1%R+0.05 Ω)	Rmax≤50 mΩ	Bend 1 mm, (5±1) s
Damp heat, steady state	ΔR≤±(5%R+0.1 Ω)	Rmax≤50 mΩ	40℃, RH (93±3)%, 56 d
Climatic sequence	ΔR≤±(1%R+0.05 Ω)	Rmax≤50 mΩ	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)	Rmax≤50 mΩ	70℃, UR (≤Umax)/IR, 1000 h
Solderability	Electrode solder coverage 90%	—	Unaged, 235℃, 2 s

Ordering Information

RI1608SZ472FP / RI1608SS50P

Model / S (uprated power, when required) / TCR / E24 or E96 nominal resistance / Tolerance / Termination P (lead-containing) or N (lead-free). Zero-ohm: model / S (uprating, when required) / 50 (maximum resistance 50 mΩ) / P or N.

TCR: S±100、Z±200、U±250、V±500×10^-6/K. Tolerance: F±1%, G±2%, J±5%.