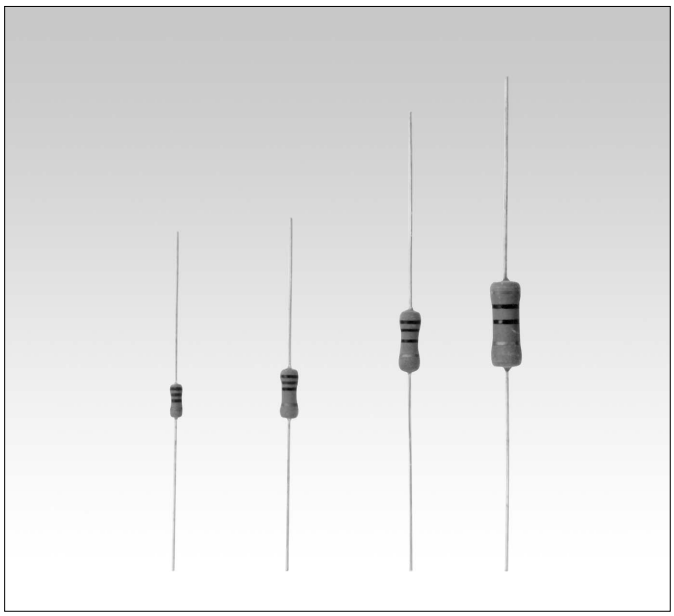
RSI

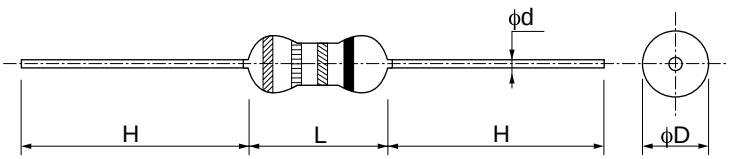
•Features

1. High stable characteristics under high temperature.
2. 5 sizes available : 1/2W to 5W.
3. Widely used in amplification, high frequency and power source circuit land also in general purpose electric applications.
4. Stability Class : 5%

* S series are suitable for high density mounting in general applications.



•Dimensions



Unit : mm

Style	L	D	H	d	*Unit Weight/pc.
RSI-1/2S	6.5±0.5	2.5±0.5	30±3	0.6±0.05	0.22g
RSI-1S	9.0±1.0	3.5±1.0		0.8±0.05	0.45g
RSI-2S	13.0±1.0	4.5±1.0			0.73g
RSI-3S	16.0±1.0	6.0±1.0			1.4g

*Values For Reference

•Part Number Description

Example

RSI – 1S | 103 | J | B

Style (RSI – 1S)

Product Type	Rated Dissipation
	1/2S, 1/2 : 0.5W
	1S, 1 : 1.0W
	2S, 2 : 2.0W
	3S, 3 : 3.0W

Rated Resistance (103)

E24 Series
e.g. : 103=10k ohm

Tolerance on Rated Resistance (J)

J	±5%

***Packaging** (B)

B	Bulk (Straight)	All Styles
HB	Horizontal Forming (Free-Standing)	
TB	52 mm Width Tape (Ammo Box)	RSI-1/2S, 1/2, 1S, 1, 2S, 2, 3S
TL	52 mm Width Tape (Reel)	

*Refer to Tape and Packaging information on pages 68~71.
Some code numbers may be added after packing codes.

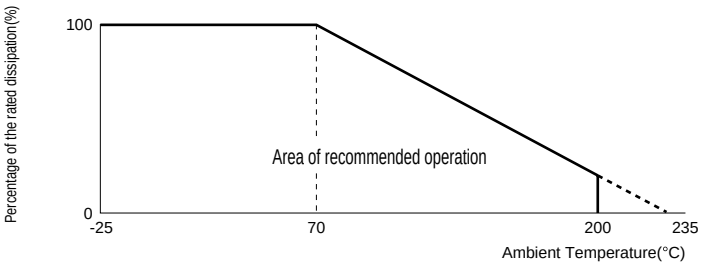
●Ratings

Style	Rated Dissipation at 70°C W	Limiting Element Voltage V	Temperature Coefficient of Resistance 10^{-6}/°C	Rated Resistance Range	Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
RSI-1/2S	0.5	250	±350	0.1 ohm~100k ohm	J (±5%)	E24	500	−25～+200
RSI-1S	1.0	350		0.1 ohm~330k ohm				
RSI-2S	2.0			0.1 ohm~510k ohm			700	
RSI-3S	3.0			0.22 ohm~470k ohm				

Note1. Rated Voltage = $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$. (d.c. or a.c. r.m.s. Voltage)
Note2. Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.
Note3. Critical Resistance Value is the resistance value at which the rated voltage is equal to the limiting element voltage.
Note4. RSP Series with upgraded performance in surge test are available too, contact the Sales Dept for detail.

●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.



●Climatic Category

25/200/56

Lower Category Temperature	−25°C
Upper Category Temperature	+200°C
Duration of the Damp heat, Steady-State Test	56 days

●Performance Characteristics JIS C 5201-1 : 1998

Description		Requirements	Test Methods
Voltage proof		No breakdown or flashover	Clause 4.7 V−block method RSI-1/2S 500Va.c.,60s; RSI-1S,2S,3S 700Va.c.,60s
Variation of resistance with temperature		See Ratings Table	Clause 4.8 Measuring temperature : +20°C/−25°C/ +20°C/+155°C/+20°C
Overload		ΔR≤±(0.5%+0.05 ohm) No visible damage, legible marking	Clause 4.13 The applied voltage shall be 2.5 times of the rated voltage or following whichever is the less severe, 5s. RSI-1/2S, : 400V; RSI-1S, 2S, 3S : 600V
Temperature rise		Δθ≤235°C	Clause 4.14 Rated voltage
Robustness of terminations	Tensile	ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.16.2 10N for 5～10s
	Bending	ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.16.3 5N twice
	Torsion	ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.16.4 180°C, 2 rotation
Solderability		In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat		ΔR≤±(1%+0.05 ohm) No visible damage, legible marking	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 350°C for 3.5s.
Rapid change of temperature		ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.19 5 cycles between −25°C and +200°C.
Climatic sequence		ΔR≤±(5%+0.1 ohm) Insulation resistance : R≥100M ohm No visible damage	Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state		ΔR≤±(5%+0.1 ohm) Insulation resistance : R≥100M ohm No visible damage, legible marking	Clause 4.24 40°C, 95%R.H., 56 days, test a),b) and c) of Clause 4.24.2.1
Endurance at 70°C		ΔR≤±(5%+0.1 ohm) No visible damage Insulation resistance : R≥1G ohm	Clause 4.25.1 Rated voltage, 1.5h "ON", 0.5h "OFF", 70°C, 1,000h.
Endurance at the upper category temperature		ΔR≤±(5%+0.1 ohm) No visible damage Insulation resistance : R≥1G ohm	Clause 4.25.3 200°C, no-load, 1,000h.