THICK FILM RESISTOR NETWORKS

THICK FILM RESISTOR NETWORK (SIP TYPE)

Thick film resistor networks have metal glaze elements on the ceramic substrates with strong clip-construction terminals, and are coated with special epoxy resin. They are originally designed, as a style of single in line package, and are the most suitable to meet the density of circuit assembling.

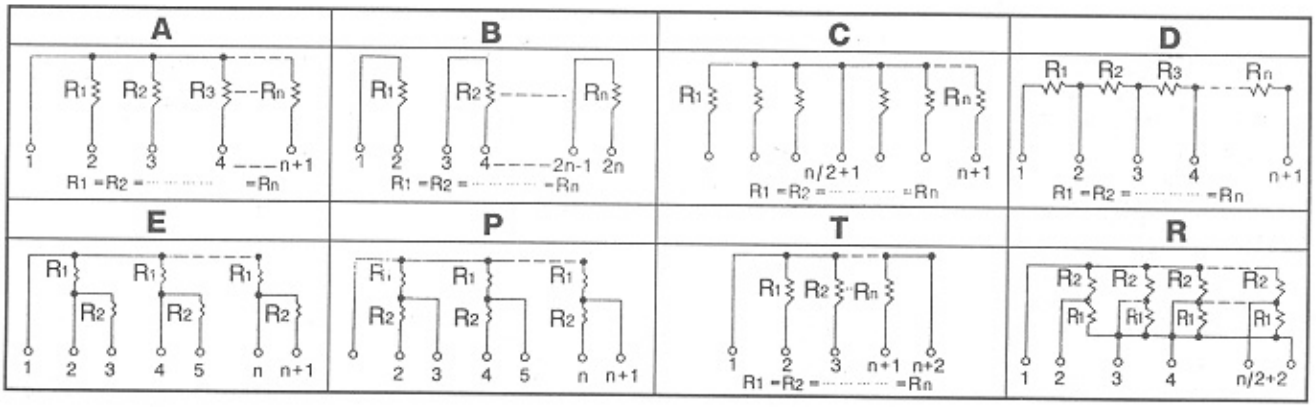
Features:

1. Small in size with high precision package. It is suitably used in printed circuit board.
2. Automated machinery mass production and competitive prices accordingly.
3. Extremely high stability, accuracy and reliability.

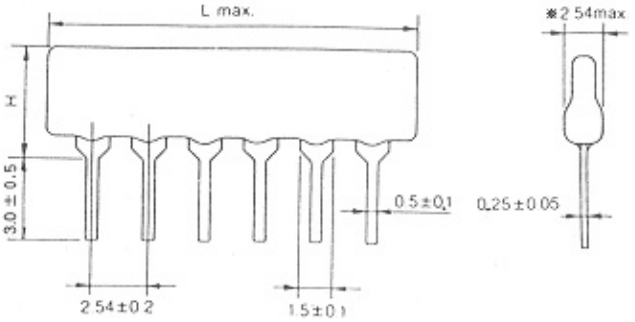
General Specification

Operating Temp. Range	− 55°C～+ 125°C		Wattage/Element	RA	RB
T.C.R.	± 100 PPM	50 ohm ～2.2M ohm		B Circuits / Others	All Circuits
	± 250 PPM	<50 ohm or 2.2M ohm		0.2W / 0.125W	0.25W
Rating Ambient Temp.	+ 70°C		Max. Working Voltage	100V	200V
Resistance Range (E-12 Series)	R Circuit	Others	Resistance Tolerance	F = ± 1%, G = ± 2%, J = ± 5%	
	100 Ω -10K	10 Ω -4.7M Ω			

Internal Circuit



DIMENSIONS (STANDARD TYPE)



DUAL TERMINATORS (R1/R2) (OHM)

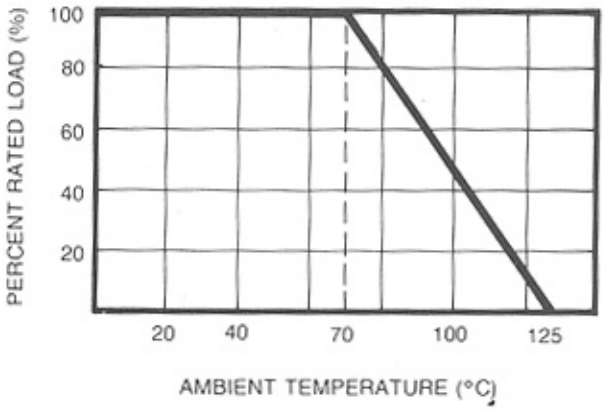
160/240	330/390
180/390	330/470
220/270	1.5K/3.3K
220/330	3.0K/6.2K

L

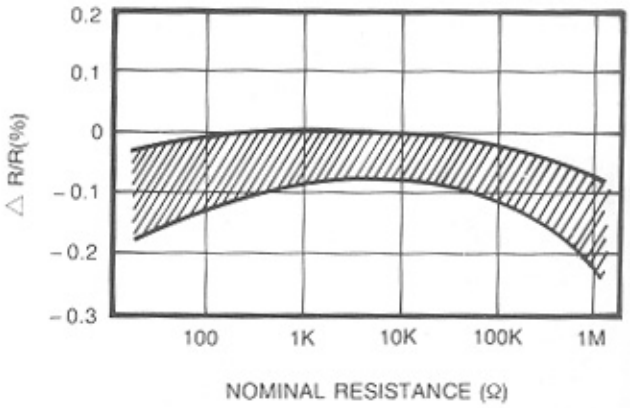
H MAX

NO: PS											RA	RB
4	5	6	7	8	9	10	11	12	13	14	5.08	7.5
10.2 MM	12.7	15.3	17.8	20.4	22.1	25.4	28.0	30.5	33.1	35.6		

DERATING CURVE



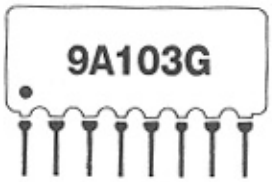
SHORT TIME OVERLOAD



Characteristic Performance

Test Items	Specification
Insulation Resistance (200Vdc Applied)	10^4 M Ω or Greater
Thermal Shock (− 55°C to + 125°C, 5 Cycles)	△ R/R: ± (0.5% + 0.1 Ω)
Short Time Overload (2.5 × Rated Voltage, 5 Sec.)	△ R/R: ± (0.5% + 0.1 Ω)
Resistance to Soldering Heat (+ 260°C ± 5°C, 10 Sec.)	△ R/R: ± (0.5% + 0.1 Ω)
Heat Shock (+ 25°C t0 + 125°C, 5 Cycles)	△ R/R: ± (0.5% + 0.1 Ω)
Moisture Resistance, Constant State (40 °C, 95% R.H., 1,000Hrs.)	△ R/R: ± (1% + 0.1 Ω)
High Temperature Exposure (125 °C, 100Hrs.)	△ R/R: ± (1% + 0.1 Ω)
Moisture Load Life (1,000Hrs., 40 °C, 95% R.H., - Rated Voltage Cycling)	△ R/R: ± (3% + 0.1 Ω)
Load Life (1,000Hrs., Rated Voltage Cycling at 70 °C)	△ R/R: ± (3% + 0.1 Ω)
Load Pull Strength (1kg, 10 Sec.)	△ R/R: ± (0.5% + 0.1 Ω)
Temperature Coefficient (− 55°C to 125°C)	± 100ppm/°C ± 250ppm/°C for <50 Ω or >2.2M Ω
Solderability (230 °C for 5 Sec.)	95% min. coverage
Note: Test methods and conditions are in accordance witn MIL-R-83401	

Marking



1 st Letter	: Number of Pins
2 nd Letter	: Type of Circuit
3 rd, 4th & 5 th Letters	: Resistance Value
6 th Letter	: Tolerance
Dot	: The First Pin

Part Number System