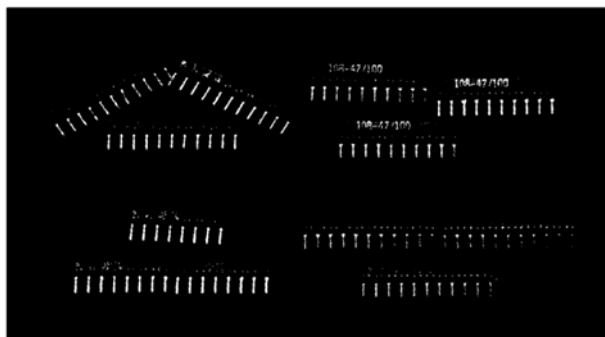


# RESISTOR NETWORKS

## SIP TYPE



### INTRODUCTION

Thick film resistor networks have Metal Glaze Element on the ceramic substrates with strong clip construction terminal, and are coated with special epoxy resin. They are the most suitable to meet the density of circuit assembling.

### APPLICATION

- Control Circuits of V.T.R. Computer, facsimile, Car & Air-Conditioner.
- Color T.V. & Other Electronic equipments for Consumer use.

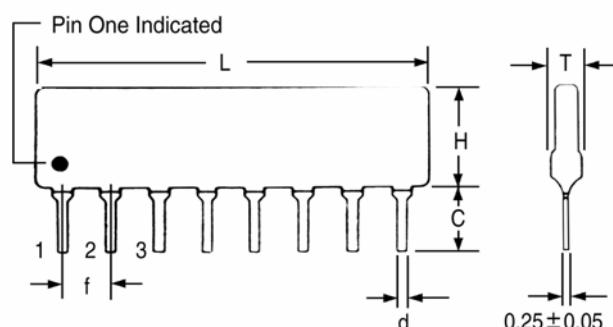
### FEATURE

- Miniature, High Density Packaging.
- Combinations of Different Ohmic value are available.
- High Reliability with RuO<sub>2</sub> Paste.

Unit: mm

TYPE	L (MAX)	H (MAX)		T (MAX)	C □0.5	d □0.05	f □0.2
		R	X				
4 pin	10.2	5.08	8	2.5	3.5	0.5	2.54
5 pin	12.7						
6 pin	15.3						
7 pin	17.8						
8 pin	20.4						
9 pin	22.9						
10 pin	25.4						
11 pin	28.0						
12 pin	30.5						
13 pin	33.1						
14 pin	35.6						

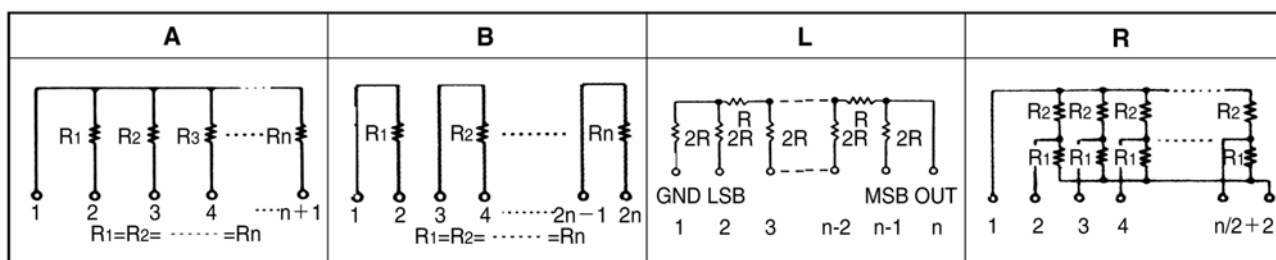
### DIMENSION



### RATING

Operating Temp. Range	-55°C ~ +125°C		Wattage/ Element		R		X				
±100PPM 50 ohm~2.2 M ohm		B style			Others		B style		Others		
±250PPM <50 ohm or ≥2.2M ohm					0.2W		0.125W		0.30W		0.25W
Rating Ambient Temp.	+70°C		Max. Working Voltage		100V		200V				
Resistance Range (E-12 Series)	B style		Others		Resistance Tolerance						
	100Ω~10K		10Ω~4.7MΩ								F= ±1%, G= ±2%, J= ±5%

### CIRCUITS CONSTRUCTION



**CHARACTERISTICS**

ITEM	TEST METHODS	SPECIFICATIONS
Resistance Temperature Characteristic	-55°C~125°C	±100ppm/°C for 50 ohm~2.2M ±250ppm/°C for <50 ohm≧2.2M
Temperature Cycling	-55°C~+125°C, for 5 Cycle	ΔR ≤ ±(0.5%+0.05Ω)
Short-Time Overload	Rated Voltage × 2.5 for 5 sec.	ΔR ≤ ±(0.5%+0.05Ω)
Resistance to Soldering Heat	350°C for 3 sec.	ΔR ≤ ±(0.5%+0.05Ω)
Insulation Resistance	100V for 1 minute.	Δ10,000 Megohm Min.
Terminal Strength	Tensile: 1Kg, 30 sec. Bending: 500g, 2 Times	ΔR ≤ ±(0.25%+0.05Ω)
Thermal Shock	Load V, Room Temp. 30 minutes Unload, -55°C, 15 minutes Over 2 hrs in Room Temp. before measuring	ΔR ≤ ±(0.5%+0.05Ω)
Solderability	230°C ± 5°C, 3 sec.	Covering 95%
Moisture Load Life	40°C, 90~95% RH rated Voltage for 1,000 hours.	ΔR ≤ ±(2%+0.05Ω)
Load Life	70°C at Rated Voltage for 1,000 hours.	ΔR ≤ ±(2%+0.05Ω)

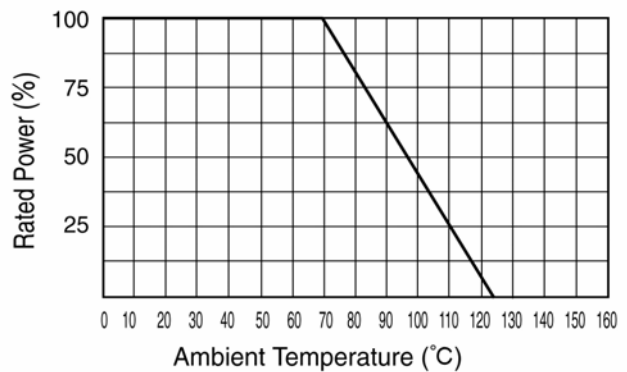
**STANDRD RESISTANCE (OHM) E-12 SERIES**

10	12	15	18	22	27	33	39	47	56	68	82
100	120	150	180	220	270	330	390	470	560	680	820
1K	1.2K	1.5K	1.8K	2.2K	2.7K	3.3K	3.9K	4.7K	5.6K	6.8K	8.2K
10K	12K	15K	18K	22K	27K	33K	39K	47K	56K	68K	82K
100K	120K	150K	180K	220K	270K	330K	390K	470K	560K	680K	820K
1M	1.2M	1.5M	1.8M	2.2M							

**DUAL TERMINATORS R-TYPE**

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

**DERATING CURVE**



**HOW TO ORDER**

