

**SINLOON®**

排列電阻

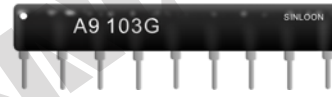
Circuit Type: 5 pin ~ 16 pin

**NR Type  
Network Resistor**

**FEATURES**

- ◆ Standard resistance range: 10R ~ 1M ohm
- ◆ Tolerance of ±2%, ±5% available.
- ◆ Highly stable thick film allows increase wattage ratings.
- ◆ Insertion equipment.
- ◆ Custom configuration, hybrids available.
- ◆ Circuit Type 5 -16 pin

Figure:



**Scope**

This specification based on our company's standard quality level is applicable to film resistors SIP NETWORK series

**ORDERING**

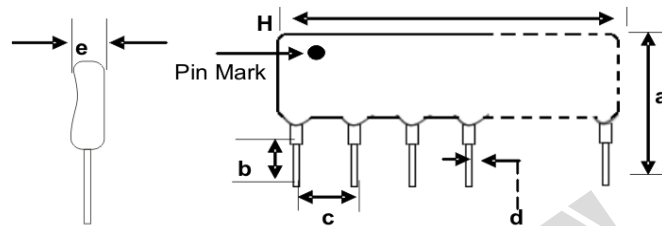
Example: NR18A10P103GB (1/8W A-Type 9R/10Pin ±2%)

Power	Type	Circuit*	Pin	Resistance (E24)	Tolerance	Package
1/8W	NR18	A	5~ 16	100 =10Ω	G = ±2%	B = Bulk
1/4W	NR14	B		101 =100Ω	J = ±5%	
		C		102=1KΩ		
		D		101 =100Ω		
		E		102=1KΩ		
		F		103 = 10K		
		S = Special		104 =100K		
			1045 = 1M			

Circuit\* See page-2  NETWORK CIRCUIT TYPE

◆ **EXTERNAL DIMENSIONS**

No.	Type(mm)
a	5±0.2
b	3.56±0.51
c	2.54max
d	0.5±0.1
e	2.54
H	(2.54+(N-1)+4)



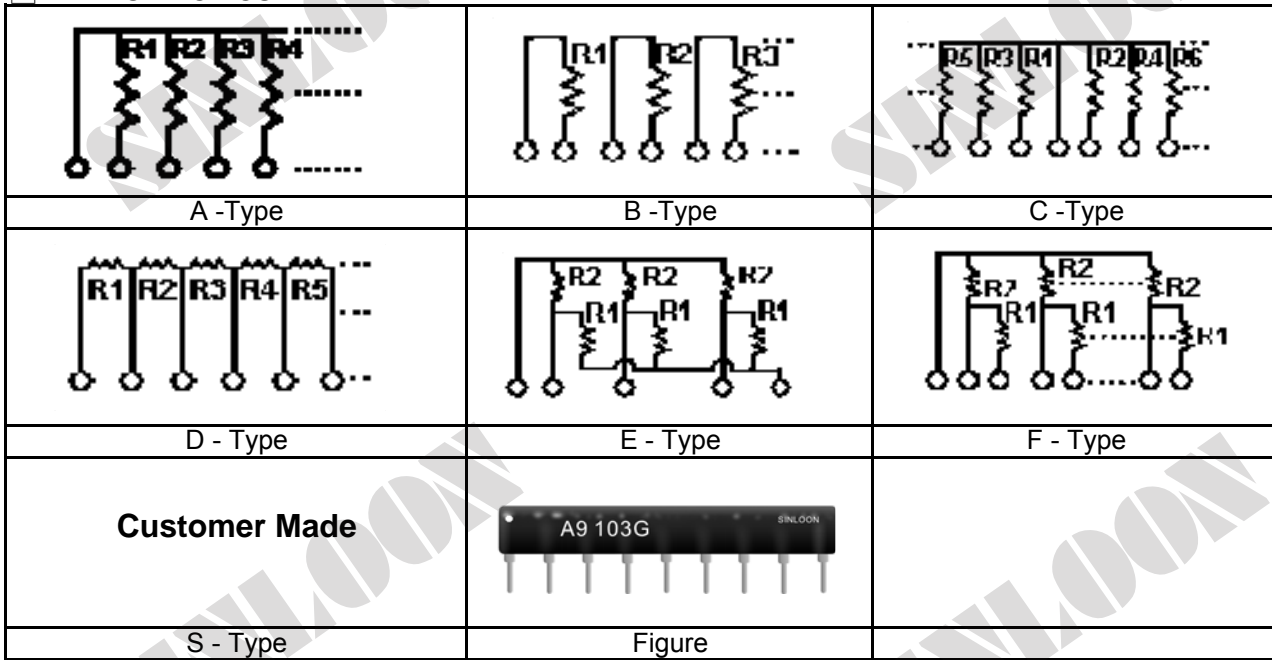
◆ **RATED POWER**

Power	Type	Power Rating		Max Working Voltage	Max Overload Voltage	Rating Ambient Temp.	Resistanc Range.	Resistanc Tolerance
		Other Type	B Type					
1/8W	NR18	0.125W	0.20W	150V	250V	70°C	10Ω~1M	J(5%) G(2%)
1/4W	NR14	0.250W	0.35W	200V	280V			

Remark: The products value range for standard resistance, below or over this resistance on request please contat us.

註: 如有低於或高於規格參數阻值的要求請聯絡我們

NETWORK CIRCUIT TYPE

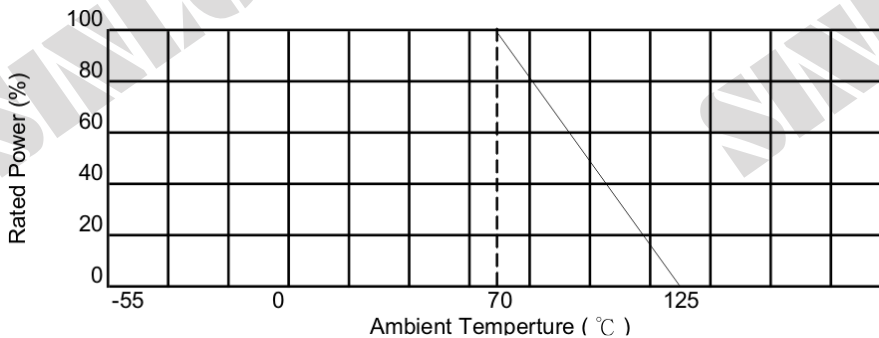


Standard Specification

Clause	Function
Element standard working watt	0.125~0.25 W / Element
Element surge voltage	150 Voltage
Standard operating temperature	70°C
Operating temperature Range	-55°C ~ 125°C

Element standard working watt  
This is maximum watt applicable to continuous use.  
Based on temperature max70°C.  
Please refer to below Graph – 1 With respect to watt over 70°C

Derating Power



\* In case resistors operating ambient temperature in excess of the temperature range -55°C ~+125°C power ratio will be derated in accordance with the figure as shown on the right.

\* Others data not in the specification of data, please contact us.

如果你要求的規格不在本規格書裡請與我們聯絡。

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**Element standard working voltage**

This is Voltage for DC or AC as opposed to element standard working watt.

Please refer to below calculation system.

But even if value from below calculation is over.

Element surge voltage 150 voltage is max.

$E = \sqrt{P \cdot R}$  E = Element standard voltage

P = Element standard watt

R = Resistance value / element

\* **Rated continuous Working Voltage (RCWV)** =  $\sqrt{\text{power rating} \times \text{resistance value}}$

◆ **Outside view :**

The Color of dip is black also marking is whit or silver.



**Characteristics**

Clause	Function
Resistance value	Must be within regulated tolerance of
Temperature Coefficient(T.C.R.)	Within $\pm 100\text{ppm}/^\circ\text{C}$ (JIS-C-5202.5.2B)
Short time overload	Within $\pm(1\%+0.05\Omega)$ (JIS-C-5202.5.5)
Lead strength	No evidence of mechanical damage
Resistance to soldering heat	Within $\pm(0.25\%+0.05\Omega)$ (JIS-C-5202.6.4)
Solderability	After immersing flus, dip in the $260^\circ\text{C}$ Max. solder bath for $3\pm 0.5$ Sec.
Temperature cycle	Within $\pm(1\%+0.05\Omega)$ (JIS-C-5202.7.4)
Load lift in moisture	Within $\pm 3\%$ , no defect (JIS-C-5202.7.9)
Load life	Within $\pm 3\%$ , no defect (JIS-C-5202.7.10)
Resistance to solvents	Able to read marking

They are high performance and high reliable thick film resistor NETWORKS using materials having excellent characteristics.

Name	Material	Characteristics
Base substrate	Alumina / Ceramic	It has excellent heat conductivity, heat stability and
Resistor elements	Ruthenium oxide	It has high resistance against heat and weathering
Conductor	Silver / Palladium	It cause no migration so as to make the design reliable
Terminal	Solder-Lined iron	The thick solder lining facilitates the soldering
Outer coating	Epoxy resin paint	It has high resistance against heat and weathering and

\* In case resistors operating ambient temperature in excess of the temperature range  $-55^\circ\text{C} \sim +125^\circ\text{C}$  power ratio will be derated in accordance with the figure as shown on the right.

\* *Others data not in the specification of data, please contact us.*

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PACKAGE

Box Dimension (mm)	
L	150
W	80
H	80

Inner Box Quantity  
5~6 pin : 2000 pcs / Box  
7~10 pin : 1000 pcs / Box  
11~14 pin : 500 pcs / Box

Fig-1 Inner Box Dimension

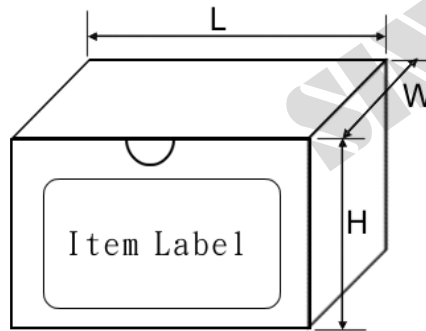


Fig-2 Inner Box (Plastic bag)



Fig-3 Carton Box



Fig-4 Carton Packing



Carton Quantity  
5~6 pin : 40,000 pcs / Carton  
7~10 pin : 20,000 pcs / Carton  
11~14 pin : 10,000 pcs / Carton

RESISTOR NETWORK  
(SIP TYPE)  
1/8W 22 OHM 2 %  
PDF 10 CIRCUITS A  
PART NO. RN18A10P1008  
QUANTITY: 20,000 PCS  
RHSB MADE IN CHINA

※美隆電子產品規格特性參數的改變和更新,不會另行通知。  
※Mayloon characteristic parameters of electronic product specification changes or updates without prior notice。