Ultra Precision Resistor Network

Alpha Electronics
A VPG Brand

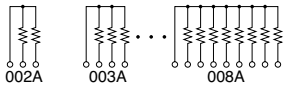
Resistor networks from Alpha Electronics, specialists in precision resistors, featuring Bulk Metal® Foil technology, provide excellent performance in TCR tracking, resistance ratio matching and stability.

Characteristics
❶ Temperature Characteristics of Resistance: 0±5 ppm/°C
❷ TCR Tracking: ±1 ppm/°C
❸ Resistance Ratio Matching: ±0.01%
❹ Resistance Stability: ±0.005%/year

STANDARD CIRCUIT

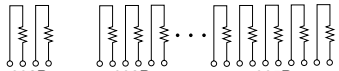
Circuit A (Array)

Circuit Symbol



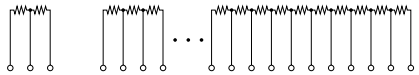
Circuit B (Independent)

Circuit Symbol



Circuit C (Divider)

Circuit Symbol



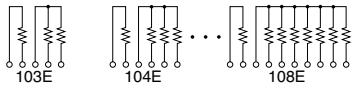
Composition of Circuit Symbol
Example:

0 02 A

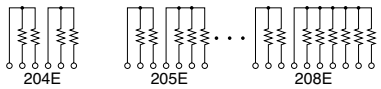
- A: Circuit Symbol
- 02: Number of Resistance Elements
- 0: Generic Number

Circuit E (A Circuit Divided into Two)

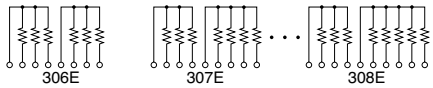
Circuit Symbol



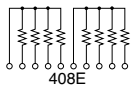
Circuit Symbol



Circuit Symbol



Circuit Symbol



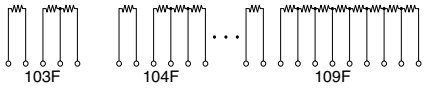
Composition of Circuit Symbol
Example:

1 03 E

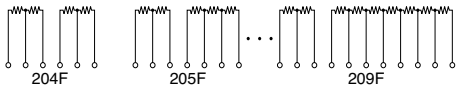
- E: Circuit Symbol
- 03: Number of Resistance Elements
- 1: Generic Number

Circuit F (C Circuit Divided into Two)

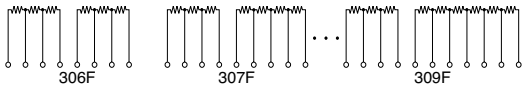
Circuit Symbol



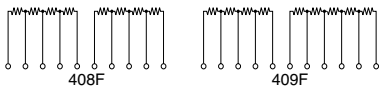
Circuit Symbol



Circuit Symbol



Circuit Symbol



Composition of Circuit Symbol
Example:

1 03 F

- F: Circuit Symbol
- 03: Number of Resistance Elements
- 1: Generic Number

Circuits other than listed are available.

RESISTANCE RANGE AND NUMBER OF ELEMENTS MOUNTABLE

Type		Case Encapsulated Type	Conformally Coated Type		
		SC	SE	SF	SS
Max. Resistance Value/Element (Ω)		120k	120k	120k	20k
Min. Resistance Value/Element (Ω)		30	30	30	30
Max. Resistance Value/Package (Ω)		1,200k	600k	240k	100k
Maximum Number of Network Elements	Circuit A	8	4	—	5
	Circuit B	5	5	2	3
	Circuit C	10	5	2	5
	Circuit E	8	—	—	4
	Circuit F	9	5	—	4

TABLE 1. TEMPERATURE CHARACTERISTICS OF RESISTANCE

TCR (ppm/°C) –25°C to +125°C		
Absolute	Tracking	
	Resistance Ratio (R max./R min.)	TCR Tracking Available
0±5	1 ≤R max./R min. ≤10	±1
	10 <R max./R min. ≤100	±2
	100 <R max./R min.	±3