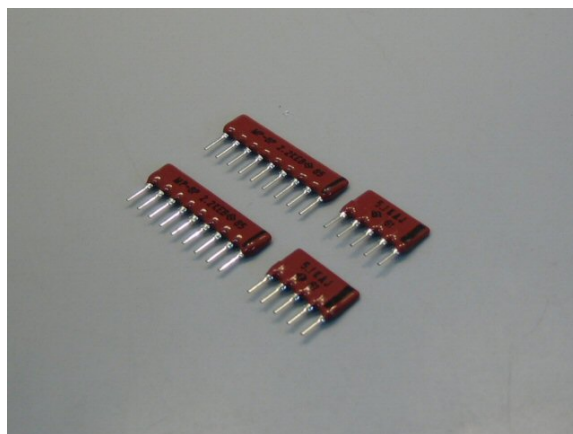


## SIP 複合抵抗器

## THROUGH-HOLE SIP RESISTOR NETWORKS

## MP



## 特長用途

SIP 精密ネットワーク抵抗器。

絶対温度係数 5ppm/°C, 許容差 0.05%, 相対温度係数 2ppm/°C, 許容差 0.05%から。回路は, 独立 (I), 直列 (S) デバイダ, 並列 (P) プルアップと多様。

リードピッチは 2.5mm, PC ボードからの実装高さは 7.5mm。

2素子3端子の電圧分圧抵抗器は, 2M, 2S, 2T を参照してください。

データ通信機器, 精密電源装置, 定電流電源, 電子負荷装置, IC テスタ, 工業計測, 電子測定器, 医用機器, モータ制御, インバータなどの, オペアンプの帰還抵抗, ゲインコントロール抵抗, 精密分圧器, 基準電圧回路, 低雑音アンプなど。

## Features and Applications

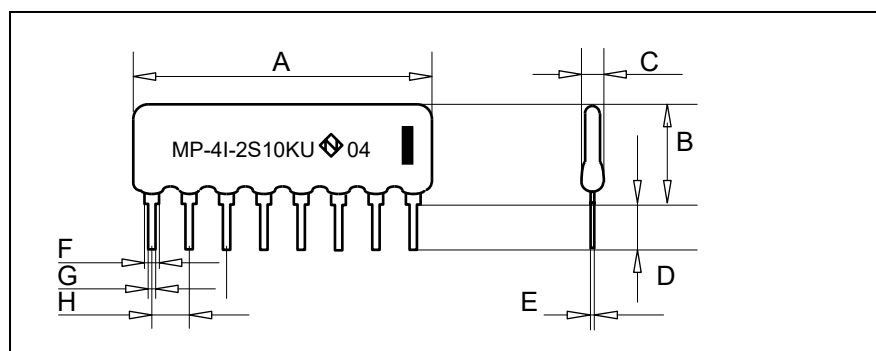
High precision through-hole SIP resistor networks made by NiCr thin film sputter on alumina substrates with high density patterning technologies.

5ppm-0.05% tight ratio tolerance and TC tracking are realized. Individual (type I), series (type S) and parallel (P) circuit schematics are available.

2.5 mm width slim body and 7.5 mm height from PC board fit for high-density layout design.

Wide applications such as voltage dividers, feed back resistors for op amp, gain control circuit, termination of data transmission and voltage reference circuit, in data processing, data transmission, precision power sources of industrial controls, measurements, medical, measurements and automatic test systems.

## Dimensions (mm) and Marking



■ : No.1 pin identification  
 MP-4I-2: Type  
 S: TCR and tracking  
 10K: Resistance  
 U: Tolerance and ratio  
 ◆: Manufacturer's ID  
 34: Date code

Note: When A is too small to print full characters, marking will be omitted style.

(mm)	4 pins	5 pins	6 pins	7 pins	8 pins	9 pins	10 pins
A	10.2+/-1.5	12.7+/-1.5	15.2+/-1.5	17.8+/-1.5	20.3+/-1.5	22.9+/-1.5	25.4+/-1.5
B	7.0 mm max.						
C	3.0 mm max.						
D	3.3 mm						
E	0.25 mm						
F	1.2 mm						
G	0.5 mm						
H	2.54 mm						

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形名呼称 Ordering Information

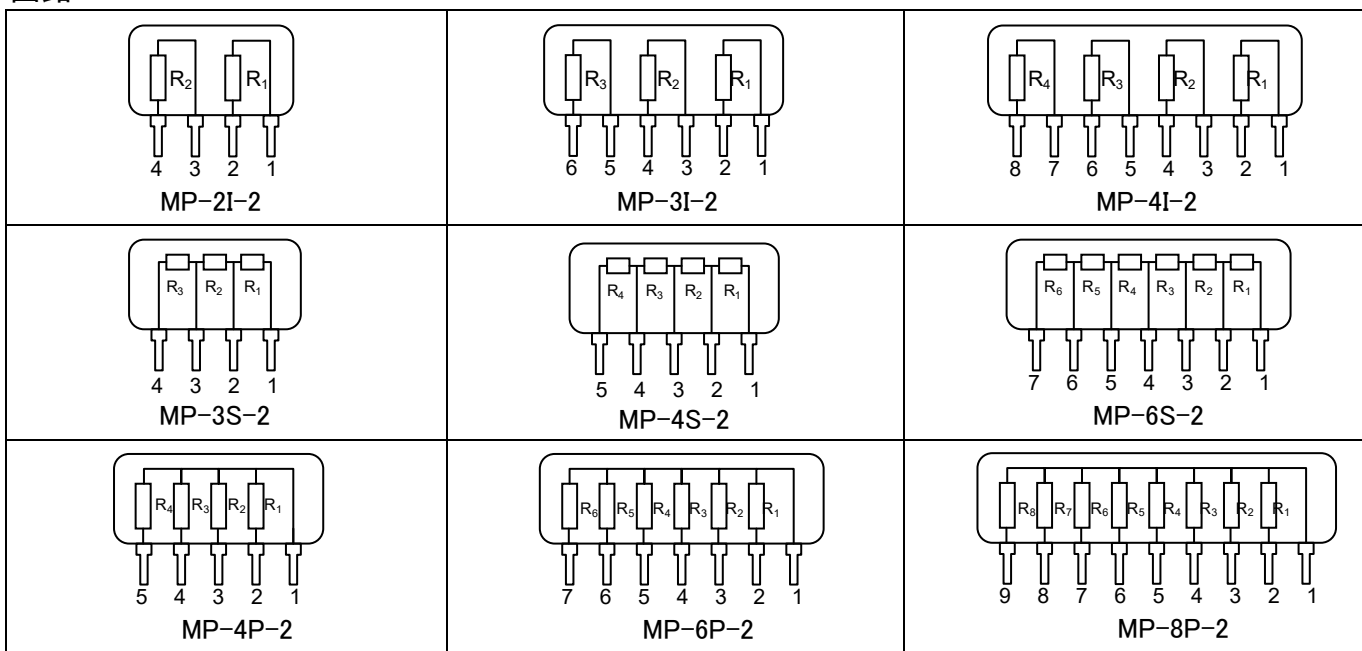
Model	TCR (abs-track)	Resistance	Tolerance (abs-ratio)	RoHS
MP-2I-2	A (100ppm-abs)	47R0-22K0	J (5.0%-abs)	Z00
MP-3I-2	C (50ppm-abs)		F (1.0%-abs)	
MP-4I-2	Z (5ppm-abs)		B (0.1%-abs)	
	R(5ppm-1ppm)		S(0.1%-0.05%)	
MP-3S-2	Q(10ppm-5ppm)		T(0.1%-0.1%)	
MP-4S-2	S(25ppm-5ppm)		U(0.5%-0.1%)	
MP-6S-2	L(50ppm-5ppm)		V(1.0%-0.1%)	
	P(50ppm-10ppm)		Y(1.0%-0.5%)	
MP-4P-2				
MP-6P-2				
MP-8P-2				

抵抗値, 温度係数, 許容差 Resistance, TCR, Tolerance, Tracking and Ratio

Resistance	TCR Symbol	TCR		Tolerance Symbol	Tolerance	
		Absolute	Tracking		Absolute	Ratio
47 ohm – 22Kohm	R	+/- 5ppm	1ppm	S	+/-0.1%	+/-0.05
	Q	+/-10ppm	5ppm	T	+/-0.1%	0.1%
	S	+/-25ppm	5ppm	U	+/-0.1%	0.1%
	L	+/-50ppm	5ppm	V	+/-1.0%	0.1%
	P	+/-50ppm	10ppm	Y	+/-0.1%	0.1%

Note1: Table shows a case of tracking and ratio, specify only absolute available.

回路 Schematics



仕様と性能 Specifications and Performance

	Specifications	Conditions
定格電力 Rating Power	125mW	
定格周囲温度 Rated Ambient Temp.	70 deg C	
使用温度範囲 Operating temp. Range	-55 to +125 deg C	
最高使用電圧 Max. Applied Voltage	100V or Accordance with E=sqrt(PR)	
短時間過負荷 Short Time Overload	+/-0.1 % Abs	2.5 times rated power, 5seconds
負荷寿命 Load Life	+/-0.1 % Abs	70C, 90min ON, 30min OFF, 1000hours
耐湿性 Humidity	+/-0.25 % Abs	60C, 90-95RH, DC 0.1W, 1,000hours
はんだ耐熱性 Soldering Heat	+/-0.1 % Abs	350C, 3seconds
絶縁耐電圧 Withstanding Voltage	+/-0.1 % Abs	1000VAC, 60seconds
絶縁抵抗 Insulation Resistance	10,000Mohm	

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