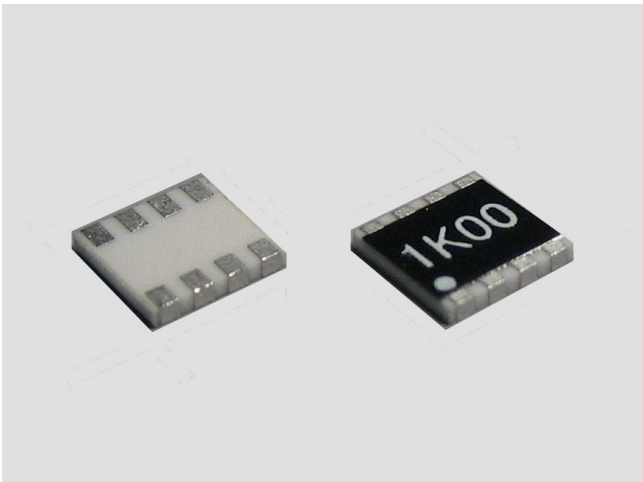


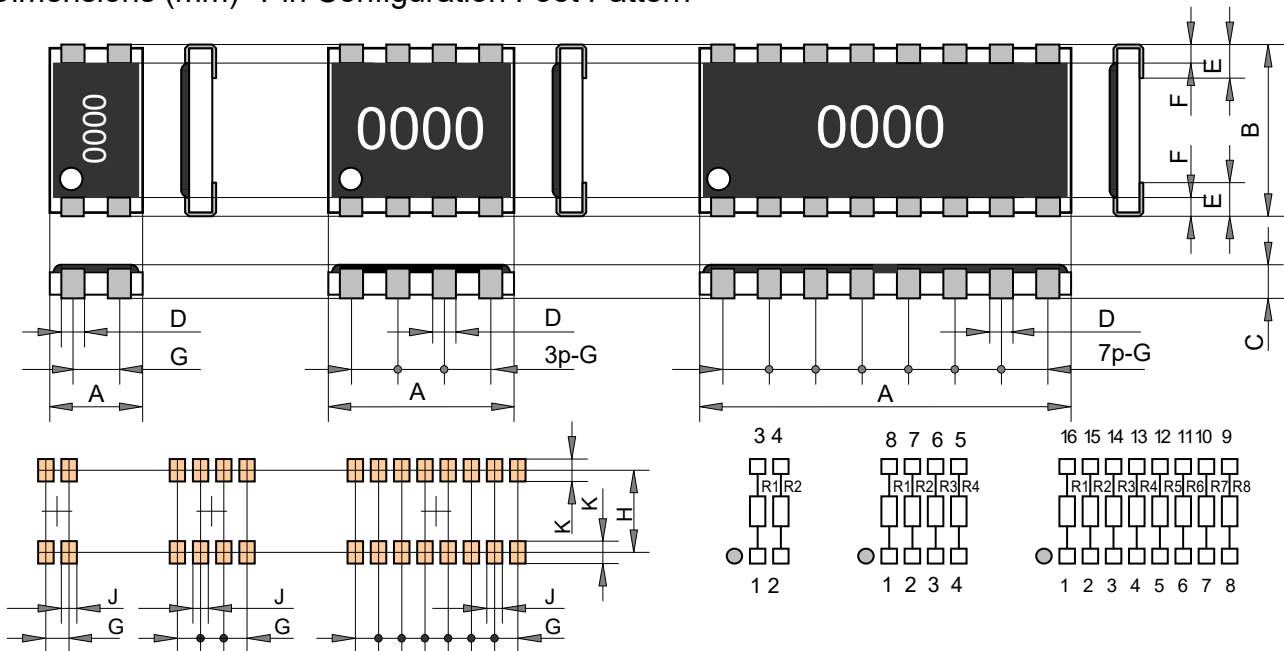
CHIP RESISTOR NETWORKS  
SOIC TYPE  
MCM4, MCM8, MCM16



Features and Applications

- 1ppm/C tracking and 0.01% ratio precision NiCr thin film resistor networks.
- 50mW/resistor rating sufficient power derating for 5 volt analog circuits.
- Simple standard circuits for 8pin available to satisfy flexible circuit design requirements.
- Supplied in plastic tape reel for automated assembling.
- Custom designed circuits also available in 8pin configuration. Customer service will be advised.
- Measurement, industrial electronics, industrial instruments, automatic testing, high-speed digital data transmission, intelligent hubs and routers, and data switching.

Dimensions (mm) Pin Configuration Foot Pattern



	A	B	C	D	E	F	G	H	J	K
MCM4	3.00 +/-0.2	5.00 +/-0.1	0.80 +/-0.2	0.635 +/-0.1	1.00 +/-0.2	(0.5)	1.27 +/-0.1	4.00	0.635 +/-0.1	1.00
MCM8	5.00 +/-0.2	5.00 +/-0.1	0.80 +/-0.2	0.635 +/-0.1	1.00 +/-0.2	(0.5)	1.27 +/-0.1	4.00	0.635 +/-0.1	1.00
MCM16	10.00 +/-0.2	5.00 +/-0.1	0.80 +/-0.2	0.635 +/-0.1	1.00 +/-0.2	(0.5)	1.27 +/-0.1	4.00	0.635 +/-0.1	1.00

## MCM4, MCM8, MCM16

### Ordering Information

Type MCM8	TCR T(5ppm-2ppm)	Resistance 10kohm	Tolerance. R (0.1%-0.02%)	Package Z00
MCM4	P +/-50 ppm/°C	E24 & E96	Q +/-0.1%	Z00(Bulk)
MCM8	Q +/-10 ppm/°C		R +/-0.1%	Z01(Tape)
MCM16	R +/-5 ppm/°C		S +/-0.1%	
MCM4-00	S +/-25 ppm/°C		T +/-0.1%	
MCM8-00	T +/-5 ppm/°C		U +/-0.5%	
MCM16-00				

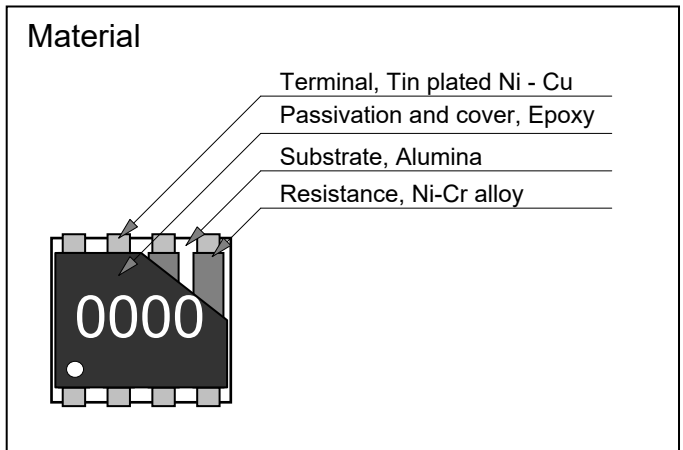
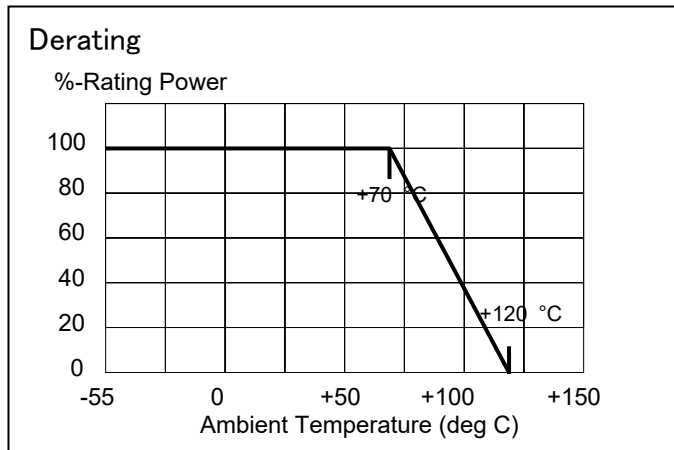
Note: When MCM8 T 10kohm R Z00, R1=R2=R3=R4=10kohm Tracking 2ppm/°C, matching: 0.02% at -20 °C to +120 °C

### Matching Tracking

	TCR	Tracking
P	+/-50 ppm/deg C	10 ppm/deg C
Q	+/-10 ppm/deg C	5 ppm/deg C
R (*1)	+/-5 ppm/deg C	1 ppm/deg C
S	+/-25 ppm/deg C	5 ppm/deg C
T	+/-5 ppm/deg C	2 ppm/deg C

	Tolerance	Ratio
Q (*1)	+/-0.1%	0.01%
R	+/-0.1%	0.02%
S	+/-0.1%	0.05%
T	+/-0.1%	0.10%
U	+/-0.5%	0.10%

(\*1) are available over resistance 1Kohm



### Performances

Type	MCM	Note
Resistance Range (ohm)	100 ohm - 22Kohm	E24+ and E96
Standard Resistance	100ohm 1Kohm 10Kohm	Same resistance
TC-Absolute	+/-5ppm/°C	-20 °C to +120 °C
TC-Tracking	+/-2ppm/°C	-20 °C to +120 °C, Tracking 1ppm is option
Tolerance-Absolute	+/-0.1%	-20 °C to +120 °C
Tolerance-Matching	+/-0.05%	-20 °C to +120 °C, Ratio 0.01% is option
Rating Power/Resistor	50 mW	
Rating Power/Package	0.2 W	
Max. Operating Volt.	$\sqrt{P \cdot R}$ or 80 V	
Rating Temp.	+70°C	
Operating Temp. Range	-55 °C to +120 °C	
Storage Temp. Range	-55 °C to +120 °C	

### Electrical Specifications

Items	Specifications	Conditions
Short Time Overload	+/- (0.05%) absolute	2.5 times rating power, 5 seconds
Insulation Resistance	>10,000Mohm	
Withstand Voltage	+/- (0.05%) absolute	100V, 60 seconds
Heat Shock	+/- (0.1%) absolute	5 cycles for temp. -65, +25, +125, +25 °C
Soldering Heat	+/- (0.05%) absolute	350 °C, 3 seconds
Solder ability	Covered 95% area	230 °C, 3 seconds
Solvent	No mechanical damage	
Humidity	+/- (0.1%) absolute	40 °C, 90-95RH, DC 0.1W, 1000hours
Load Life	+/- (0.1%) absolute	70 °C, 90min.ON, 30minOFF, 1000hours