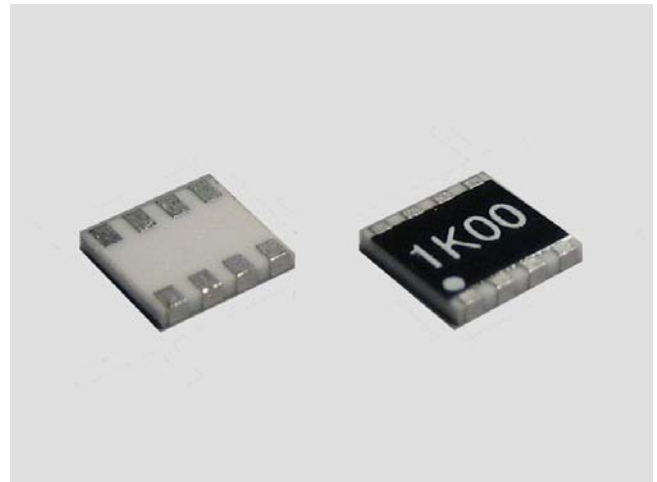


CHIP RESISTOR NETWORKS

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.

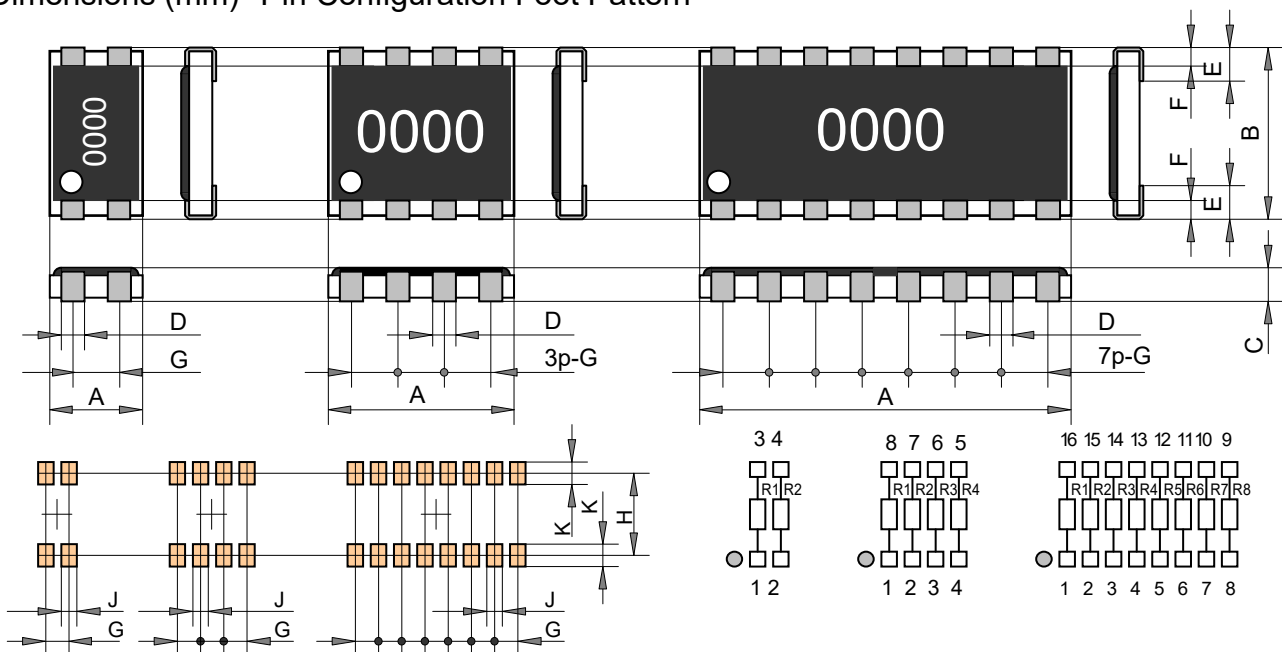
Simple standard circuits for 8pin available to satisfy flexible circuit design requirements.

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				

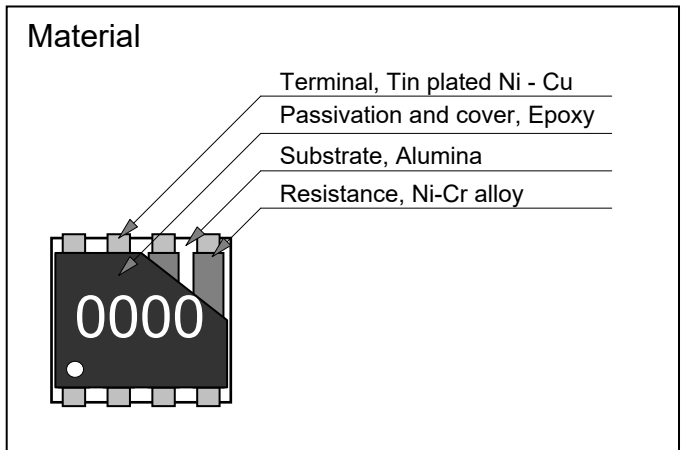
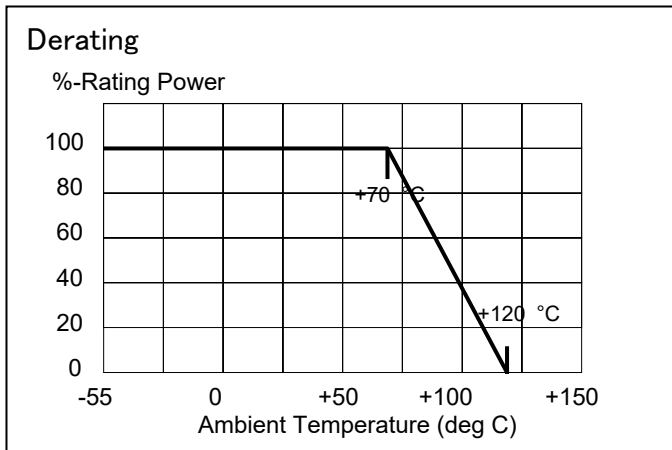
Note: When MCM8 T 10kohm R Z00, R1=R2=R3=R4=10kohm Tracking 2ppm/°C, matching: 0.02% at -20 °C to +120 °C

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