



NTC THERMISTORS: TYPE FM

DESCRIPTION:

MICROCIRCUIT THERMOFLAKES are thin film thermistor flakes which have no substrate backing. They are supplied with two solderable electrodes on one surface, making them ideally suited for surface (substrate) or pin mounting. Through the use of newly developed fabrication techniques, it has been possible to obtain high temperature, low noise devices which provide an order of magnitude reduction in noise, when compared with other commercially available flake thermistors.

MICROCIRCUIT THERMOFLAKES are available in standard thickness of 0.003" – 0.005" for ease of handling in high production application.

DATA:

CONFIGURATION

MICROCIRCUIT THERMOFLAKES are made in standard square and rectangular forms as shown.

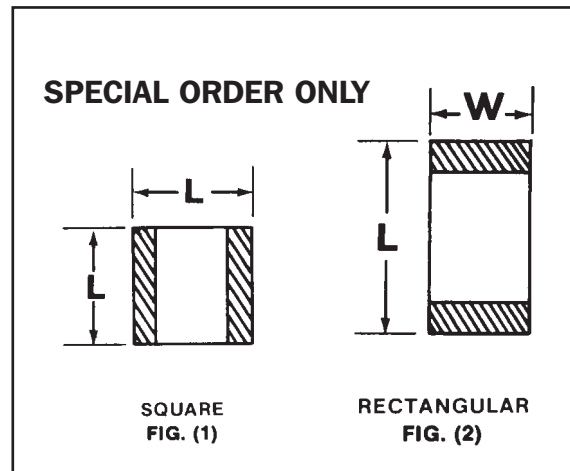
MAXIMUM TEMPERATURE

All MICROCIRCUIT THERMOFLAKES are designed for continuous operation at temperatures up to 125°C. When additional pre-conditioning is specified units may be operated up to 300°C.

TEMPERATURE COEFFICIENTS & RESISTANCE TEMPERATURE DATA

Varies between -3.3%/°C and -4.0%/°C @ 25°C, depending on size, thickness and the resistance of the Thermoflake.

DIMENSIONS:



THERMAL AND ELECTRICAL PROPERTIES

(Definitions and test methods per MIL-PRF-23648)

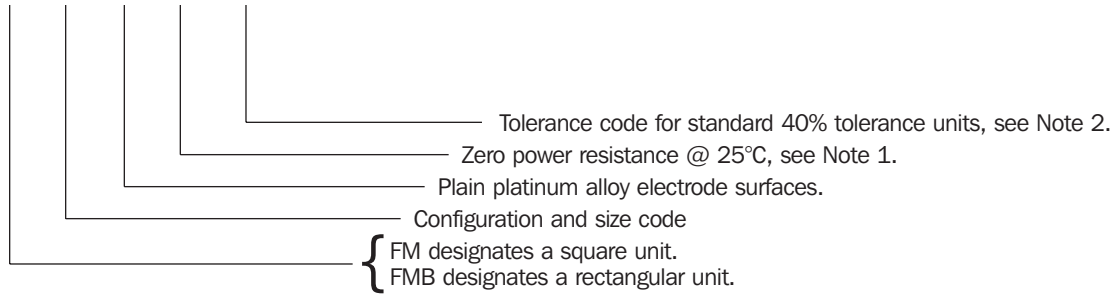
Thermal Time Constant	Microcircuit Flakes
in still air	0.125 sec.
Dissipation Constant	
in still air	0.50 mW/K
Resistance Range	1k to 1M ohms
Maximum Power Range	0.050 watts

Figure	Style Code	Configuration	Size (in inches)	STANDARD RESISTANCE VALUES @ 25°C ± 40% AND ASSOCIATED RATIO R _{25°C} /R _{125°C}					
1		Square	Dimension ("L" x "L")						
	FM20	Square	0.020" x 0.020"						
	FM40	Square	0.040" x 0.040"						
	FM80	Square	0.080" x 0.080"						
	FM120	Square	0.120" x 0.120"	R _T	1k	5k	50k	500k	
				Ratio	9.0	11.5	19.8	29.7	
2		Rectangular	Dimension ("W" x "L")						
	FMB20	Rectangular	0.020" x 0.040"						
	FMB40	Rectangular	0.040" x 0.080"						
	FMB60	Rectangular	0.060" x 0.120"						
				R _T	2k	10k	100k	1 Meg	
				Ratio	9.0	11.5	19.8	29.7	

CODING:

The part number should be specified as follows:

FM 40 N 103 Q



NOTES:

1. The zero-power resistance @ 25°C, expressed in ohms, is identified by a three digit number. The first two digits represent significant figures, the last digit is the number of zeroes to follow. Therefore a 0.040" x 0.040" unit of 10k ohms and standard tolerance would be specified as FM40N103Q.
2. Special tolerances are available on request. To specify a non-standard tolerance, use the letter "S" followed by the desired tolerance (i.e., S25 = ±25%).