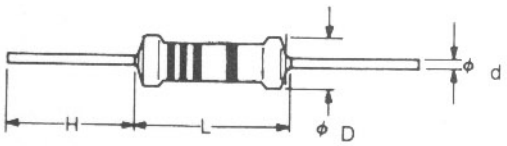
MINIATURE SIZE METAL FILM FIXED RESISTORS

INTRODUCTION

1. Miniature size for saving PCB assembly.
2. Manufactured by high vacuum sputtering deposit metal film on high aluminum content ceramic rods.
3. Superior electrical performance and cost comparable to covensional sizes.
4. Standard tolerance : ± 1% (2%, 5% available)

DIMENSIONS



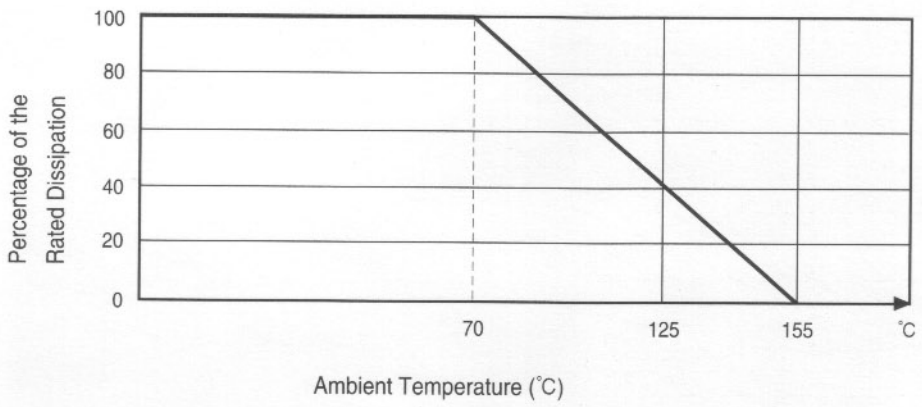
General Specification

Style	Power Reting (W)	Dimensions				Max Working V.*	Max Overload V.	*Resistance Range 1%
	70°C	L	D	d	H (MIN)			
FM-0204	0.4W	3.7 ± 0.4	1.5 ± 0.2	0.45 ± 0.03	27	200V	350V	10 Ω ~1MEG
FM-0207	0.6W	6.5 ± 0.5	2.3 ± 0.2	0.50 ± 0.05	27	250V	500V	10 Ω ~1MEG
FM-01	1W	6.5 ± 0.5	2.3 ± 0.2	0.55 ± 0.05	27	250V	500V	10 Ω ~1MEG

* Max working voltage determined by E= $\sqrt{PR}$, E Should not exceed value listed in column above.

* 5% Range FM-0204 2.2 Ω -1MEG,FM-0207, FM-01 5.1 Ω -4.7MEG

Derating Curve



Characteristics

Requirements	Characteristics	Remarks
Temperatue Coefficent	± 50PPM	10^{-6}/°C Mil-STD-202 Method-304
Thermal Resistance	140 $\frac{K}{W}$	
Life Stability At 70°C 1000 Hr Max. Resistance Change	1% + 0.05 Ω	At Most Vmax. 1.5 hr on 0.5 hr off
Dielectric Withstanding Voltage	300 Vr.m.s. for FM-0204 500 Vr.m.s. for FM-0207, FM-01	
Insulation Resistance	$> 10^3$ M Ω	100VDC
Damp Heat Steady State	±1%	56 Days At 40°C and 93% Relative humidity at a voltage of 0.1 times rated voltage, Max 16 Volts
Short time Overload	± 0.5%	2.5 times rated voltage, at most 2 times limiting element voltage (U Nax)
Moisture Resistance	± 0.5%	
Resistance to Soldering Heat	±0.25%	260 ± 5°C to 6mm distance from the resistance body in 10 sec.
Temperature Cycling	± 0.5%	− 55°C to + 155°C
Low Temperature Operation	±0.25%	− 65°C
Vibration	±0.25%	− 65°C
Current Noise	Up to 1M Ω ≤ 0.5 $\frac{\mu V}{V}$	− 5dB
Solderability	> 95% coverage	Dipping in 235°C Solder bath for 3 sec
Resistance to Solvents	No failure of top coating and color code	

HOT-SPOT Temperature