



FMR Series Ultra Miniature Style Metal Film Resistors

METAL FILM RESISTORS

FMR Series

0.4W, 0.5W, 0.6W, 1W, 1.8W, 3W
 MFR-10, MFR20, MFR30,
 MFR-01, MFR-02, MFR-03

INTRODUCTION

The FMR Series flame-proof type miniature Metal Film Resistors are manufactured by vacuum deposit metal film on high thermal conductivity and specific gravity Rosenthal ceramic or same grade Japanese rods. The both ends of ceramic are coated with precision mixed metals which help to prevent against noise, and to provide low TCR and low Tol precision resistors that can meet MIL and JIS requirements.

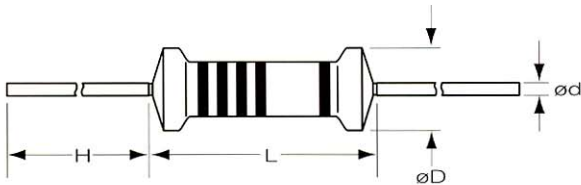
Utilizing a 95~98% of Al ceramic cores and combined a special cutting technology inside, this resulting superior resistors give excellent heat dissipation, stable performance and significantly upgrade the power rating.

This specially designed resistors are widely used by the industries of communication devices, meters, high-class, audio equipments and precision military defending facilities as well.

FEATURES

- Resistance Tolerance: $\pm 1\%$, $\pm 2\%$, $\pm 5\%$.
- Excellent long-term stability.
- High power-to-size ratio for significant space saving.
- Variety of packing: bulk, strip pack, 26mm and 52mm tape and reel, cut and formen.

DIMENSIONS:



STYLE	DIMENSION (mm)				POWER RATING (Watt)	VALUE RANGE
	L	øD	H	ød		
FMR-10	3.3±0.4	1.8±0.3	28±2	0.5±0.05	0.5W	10Ω~1M
FMR-20	6.3±0.5	2.3±0.3	28±2	0.6±0.05	0.4W	10Ω~1M
FMR-30	6.3±0.5	2.3±0.3	28±2	0.6±0.05	0.6W	10Ω~1M
FMR-01	6.3±0.5	2.3±0.3	28±2	0.6±0.05	1W	10Ω~1M
FMR-02	9.0±0.5	3.2±0.5	26±2	0.6±0.05	1.8W	10Ω~1M
FMR-03	15.5±1.0	5.0±0.5	32±2	0.6±0.05	3W	10Ω~1M

ELECTRICAL CHARACTERISTICS:

Style	FMR-10	FMR-20	FMR-30	FMR-01	FMR-02	FMR-03
Power Rating 70°C	0.5W	0.4W	0.6W	1W	1.8W	3W
Operating Temp. Range	-55°C ~ +155°C					
Max. Working Voltage	200V	250V	250V	250V	350V	500V
Max. Overload Voltage	400V	500V	500V	500V	700V	1000V
Dielectric Withstanding Voltage (AC)	300V	500V	500V	500V	700V	1000V
Max. Intermittence Overload Voltage	250V	300V	300V	300V	500V	1000V
Value Range $\pm 1\%$, $\pm 5\%$	10Ω~1KΩ					
Temp. Coefficient (by Type)	$\pm 50\text{ppm}$, $\pm 100\text{ppm}$					

FIG.1 DERATING CURVE

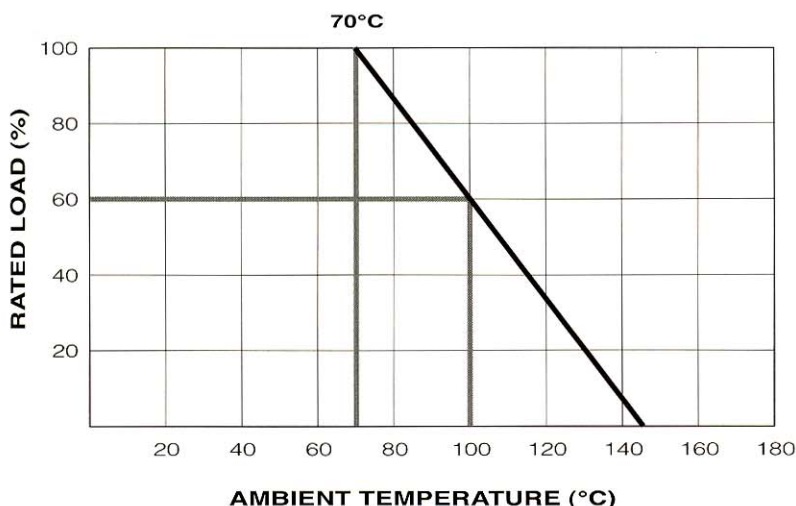


FIG.2 HOT-SPOT TEMPERATURE

