***0.4W,*0.5W,0.6W,1W,1.8W,3W.**

INTRODUCTION

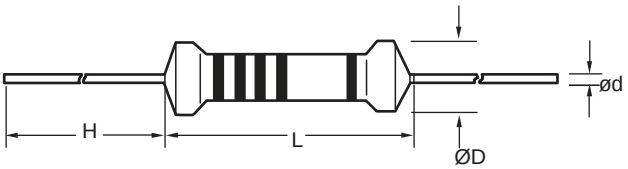
The FMR Series flame-proof type miniature Metal Film Resistors are manufactured by vacuum depos it metal film on high thermal conductivity and specific gravity Rosenthal ceramic or same grade Japanese rods. The both ends of ceramic are coated with precision mixed metals which help to prevent against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

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 up-grade 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 aswell.

FEATURES

· Resistance Tolerance: ±1%; ±2%, ±5%.
· Excellentlong-termstability.
· High power-to-size ratio for significant space saving.
· Variety of packing: bulk, strip pack, 26mm and 52mm tape and reel, cut and formed.



STYLE	DIMENSION(MM)				POWER RATING	VALUE
	L	øD	H	ød	(Watt)	RATING
FMR-10	3.3 ± 0.3	1.8 ± 0.3	28 ± 2	0.45 ± 0.05	0.5W	10Ω~1M
FMR-20	6.3 ± 0.5	2.3 ± 0.3	28 ± 2	0.55± 0.05	0.4W	10Ω~1M
FMR-30	6.3 ± 0.5	2.3 ± 0.3	28 ± 2	0.55± 0.05	0.6W	10Ω~1M
FMR-01	6.3 ± 0.5	2.3 ± 0.3	28 ± 2	0.55± 0.05	1W	10Ω~1M
FMR-02	9 ±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	0.8 ± 0.05	3W	10Ω~1M

ELECTRICAL CHARACTERISTIC

Style	FMR-10	FMR-20	FMR-30	FMR-01	FMR-02	FMR-03
Power Rating 70˚C	0.5 W	0.4 W	0.6 W	1 W	1.8 W	3 W
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 ±1%, ±5%	10 Ω ~ 1M Ω					
Temp. Coefficient (by Type)	± 50ppm, ± 100ppm					

·The listed resistance range for standard resistance, below or over this resistance is on request.

ENVIRONMENTAL CHARACTERISTIC

Style	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5: 2.5 times RCWV for 5 seconds	**± (0.25%+0.05Ω)**
Dielectric Withstanding V.	JIS-C-5202 5.7: in V-Block for 60 seconds	**By Type**
Temperature Coefficient	JIS-C-5202 5.2: -55˚C ~ + 155˚C	**By Type**
Insulation Resistance	JIS-C-5202 5.6: in V-Block	**≧1000 MΩ**
Solderability	JIS-C-5202 6.5: 235˚C for 5 ±0.5 seconds	**95% min. coverage**
Resistance to Solvent	JIS-C-5202 6.9: Trichroethance for 1min. with ultrasonic	**no deterioration**
Terminal Strength	Direct load for 10 sec. In the direction of the terminal leads	**≧2.5KG / 24.5N**
Pulse Overload	JIS-C-5202 5.8: 4 time RCWV RCWV 10000 cycles (1 sec.on,25 sec.off)	**± (0.5%+0.05Ω)**
Load Life in Humidity	JIS-C-5202 7.9: 40 ± 2˚C, 90~95%RH at RCWV for 1000 hrs (1.5 hrs. on, 0.5 hrs. off)	**± (0.5%+0.05Ω)**
Load Life	JIS-C-5202 7.10: 70˚C at RCWV for 1000hrs (1.5hrs.on, 0.5hrs.off)	**± (0.5%+0.05Ω)**
Temperature Cycling	JIS-C-5202 7.4: -55˚C ~room temp. ~155˚C ~ room temp. for 5 cycle	**± (0.25%+0.05Ω)**
Soldering Heat	JIS-C-5202 6.4: 350 ± 10˚C for 3 ± 0.5 seconds	**± (0.25%+0.05Ω)**

·Rated Continuous Working Voltage (RCWV) RCWV = $\sqrt{\text{Power Rating x Resistance Value}}$

FIG.1 DERATING CURVE

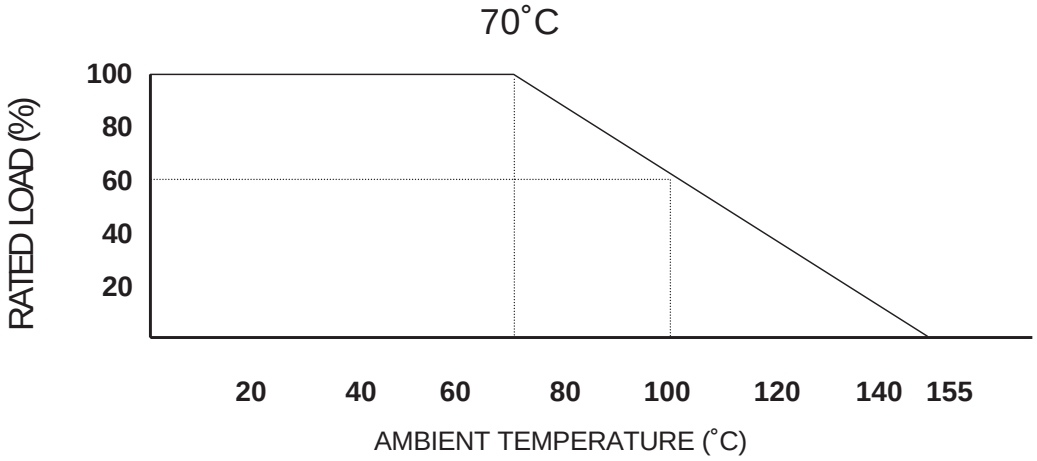


FIG.2 HOT-SPOT TEMPERATURE