

Metal Film Resistors - MFR-FMFR Series

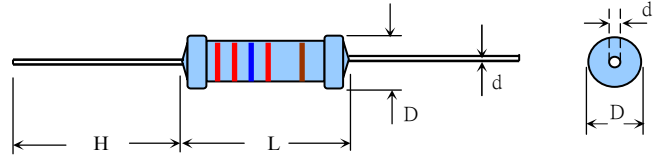
FEATURES

- Power Rating: 1/8W to 3W at 70°C
- Superior electrical performance
- Standard T.C.: $\pm 50\text{ppm}$ for $10\Omega \sim 1\text{M}\Omega$ (15/25ppm available)
- $\pm 100\text{ppm}$ for 1R - 9R9, 1M1 - 10M
- Standard Tolerance: $\pm 1\%$ (available 0.1% - 5%)
- Standard Value: 10R-1Meg in E24/E96 series
- Body Color: Light blue
- Color band marking
- Flameproof coating available (As FMFR-S type)
- Operating Temperature : $-55^\circ\text{C} \sim +155^\circ\text{C}$

MATERIAL

- Element: Vacuum-deposited Ni-Cr Alloy
- Core: High purity ceramic Al₂O₃
- Termination: Standard solder-plated cooper lead
- Coating: Epoxy (FMFR is grey silicone)

DIMENSION



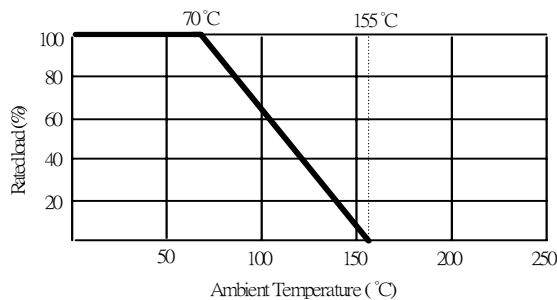
GENERAL SPECIFICATION

TYPE	DIMENSION (mm)				POWER	MAXIMUM WORKING VOLTAGE*	MAXIMUM OVERLOAD VOLTAGE**	RESISTANCE RANGE $\pm 1\%$
	L	D	H	d ± 0.05				
MFR125	3.2 \pm 0.2	1.5 \pm 0.2	28 \pm 1.0	0.45	1/8W	200V	400V	10 Ω ~ 1M Ω
MFR025S	3.2 \pm 0.2	1.5 \pm 0.2	28 \pm 1.0	0.45	1/4W	250V	500V	10 Ω ~ 1M Ω
MFR025	6.0 \pm 0.5	2.3 \pm 0.3	28 \pm 1.0	0.55	1/4W	250V	500V	10 Ω ~ 1M Ω
MFR050S	6.0 \pm 0.5	2.3 \pm 0.3	28 \pm 1.0	0.55	1/2W	350V	700V	10 Ω ~ 1M Ω
MF050	9.0 \pm 0.5	3.2 \pm 0.5	28 \pm 1.0	0.65	1/2W	350V	700V	10 Ω ~ 1M Ω
MFR100S	9.0 \pm 0.5	3.2 \pm 0.5	28 \pm 1.0	0.65	1W	500V	1000V	10 Ω ~ 1M Ω
MFR100	11 \pm 1.0	4.0 \pm 0.5	35 \pm 3.0	0.75	1W	500V	1000V	10 Ω ~ 1M Ω
MFR200S	11 \pm 1.0	4.0 \pm 0.5	35 \pm 3.0	0.75	2W	500V	1000V	10 Ω ~ 1M Ω
MFR200	15 \pm 1.0	5.0 \pm 0.5	35 \pm 3.0	0.75	2W	500V	1000V	10 Ω ~ 1M Ω
MFR300	17 \pm 1.0	6.0 \pm 0.5	35 \pm 3.0	0.75	3W	500V	1000V	10 Ω ~ 1M Ω

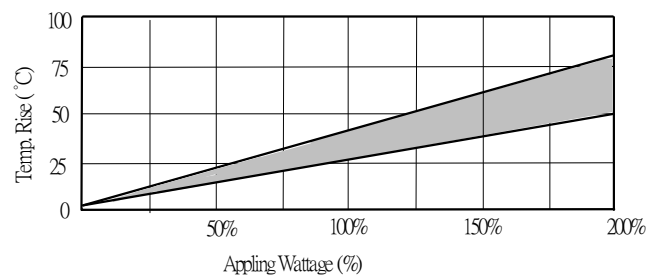
* Maximum Working Voltage determined by $E = \sqrt{P \times R}$, where E should not exceed value listed in column above.

** Maximum Overload Voltage equals to 2.5xE, but should not exceed value listed in column above

DERATING CURVE



TEMPERATURE RISE



CHARACTERISTIC

Temperature Coefficient	$\pm 50\text{ppm}$ (15ppm, 25ppm available)
Insulation Resistance	10,000M Ω Min.
Load Life (1000 hours)	$\leq \pm 0.5\%$
Shorttime Overload	$\pm 0.25\%$ Max.
Temperature Cycling	$\pm 0.25\%$ Max.
Moisture Resistance	$\pm 0.5\%$ Max.
Shock & Vibration	$\pm 0.25\%$ Max.
Effect of Soldering	$\pm 0.1\%$ Max.

* Total maximum resistance change is $\Delta R + 0.01R$

HOW TO ORDER :

MFR125	F	TB	-	10R
Type/Power	Tol.	Package	ppm	Resistance
MFR125	B= $\pm 0.1\%$	B=Bulk	- = Based on spec.	10R = 10 Ω
MFR025	C= $\pm 0.25\%$	TB=Tape/box	D=25ppm	1K2 = 1.2K Ω
MFR050	D= $\pm 0.5\%$	TR=Tape/reel	C=15ppm	1M = 1M Ω
MFR100	F= $\pm 1\%$	Lead forming		
MFR200	G= $\pm 2\%$	M		
MFR300	J= $\pm 5\%$	F		

HITANO ENTERPRISE CORP.

7F-7, NO. 3, Wu Chuan 1st Rd., Wu Ku Industrial Park, Taipei Hsien, Taiwan

Tel:(886)-2-2299 1331 Fax:(886)-2-2298 2466

E-mail : info@hitano.com.tw