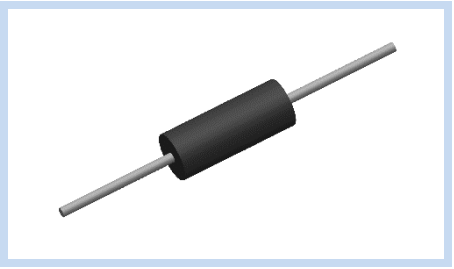
Metal Film Resistor
Molded Axial Leaded Type

MFM Series

MERITEK

FEATURE

- Power Rating : 0.125W~1W
- Precision Tolerance Tight to ±0.02%
- Precision Metal Film, Excellent Stability and Reliability
- Superior Electrical TCR Performances Narrowed to ±5ppm/°C
- Applications: Medical Electronics, Telecom, Precision Instrucments, Measuring and Calibration Equipment



RoHS

ELECTRICAL CHARACTERISTICS

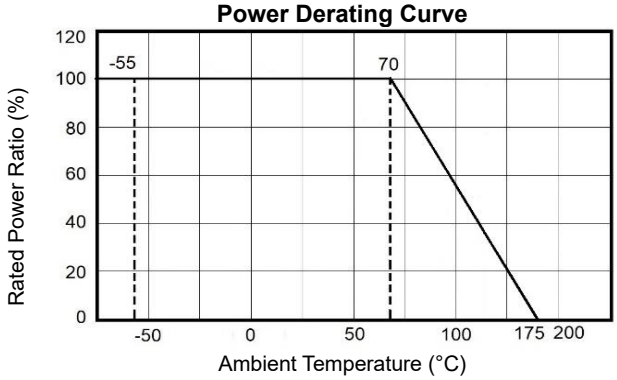
Power Rating, 70°C (W)	Dimension (mm)				Max Working Voltage (V)	Max Overload Voltage (V)	TCR (PPM/°C)	Resistance Range (Ω)	
	L ±0.3	D ±0.4	H ±3.0	d ±0.05				±0.02%, ±0.05%	±0.1%, ±0.5%, ±1%
1/8 (12)	4.4	1.9	26	0.45	200	400	±5, ±10 ±15 ±25	-	101 ~ 300K
1/4 (25)	7.0	2.7	26	0.60	250	500		101 ~ 200K	10 ~ 1M
1/2 (50)	10.2	4.0	25	0.60	300	600		101 ~ 200K	10 ~ 1M
3/4 (75)	15.5	5.1	23	0.60	350	700		101 ~ 200K	10 ~ 1M
1 (100)	18.2	6.5	30	0.80	400	800		101 ~ 200K	10 ~ 1M

PART NUMBERING SYSTEM

MFM (1) 25 (2) F (3) 5052 (4) F (5) B (6)

No.	Item	Code	Description	
(1)	Meritek Series	MFM	Metal Film Resistor, Molded Axial Leaded Type	
(2)	Power Rating	25	25: 1/4W	12:1/8W, 50:1/2W, 75: 3/4W, 100: 1W, at 70°C
(3)	T.C.R.	F	F: ±25PPM	B: ±5, C: ±10, D: ±15
(4)	Resistance	5052	5052: 50.5KΩ	2000: 200Ω
(5)	Tolerance	F	F: ±1%	L: ±0.02%, A: ±0.05%, D: ±0.5%,
(6)	Packing	B	B: Bulk	A or TA: Tape and Ammo, R or TR: Tape and Reel

CHARACTERISTIC CURVES



RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Condition	Requirement
Operating Temperature Range	-55°C to +125°C	All type
Temperature Coefficient Resistance	Resistance value at Room Temperature and Room Temperature +100°C	By Type
Insulation Resistance	Apply 100VDC for 1 minute	>1000MΩ
Endurance	70°C at RCWV for 1000 hrs. (1.5 hrs. ON, 0.5 hrs. OFF)	± (0.2% + 0.05Ω)
Moisture resistance	40±2°C 90~95%RH for 1000 hrs. (1.5 hrs. ON, 0.5 hrs. OFF)	± (0.3% + 0.05Ω)
Short Time Overload	RCWV x 2.5 for 5 seconds	± (0.25% + 0.05Ω)
Pulse Overload	RCWV x 4 for 10000 cycles (1.5 hrs ON, 0.5 hrs OFF)	± (0.75% + 0.05Ω)
Solderability	245±5°C for 3±0.5 seconds	90% Min Coverage
Resistance to Soldering Heat	350±10°C for 3+0.5 seconds, leave for 3 hours before test	±(0.05% + 0.01Ω)
Terminal Strength	Direct load for 10 seconds in the direction of the terminal leads	Tensile: ≥2.5kg
Resistance to Solvent	Trichroethane for 1 min, with ultrasonic	No abnormality

Notes:
1. Reference Standards: MIL-STD-202, JIS-C 5201-1
2. Storage Temperature: 22~28ºC; Humidity:<80% RH,
3. Rated Continuous Working Voltage (RCWV) = $\sqrt{Power.Rating * Resistance.Value}$

*Specifications subject to change without notice.