

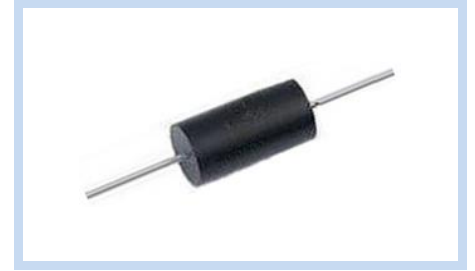
Metal Film Resistor Axial Molded Package

MFM Series

MERITEK

FEATURE

- 0.1W to 0.5W at 125°C
- Low T.C.R.: ± 5 , ± 10 , ± 15 , ± 25 , and ± 50 ppm/°C
- Tight Tolerances: down to $\pm 0.05\%$
- Operating Temperature Range: -65 ~ 175°C
- High Environmental Stabilities



PART NUMBERING SYSTEM

MFM **25** **G** **2002** **B** **A**
(1) (2) (3) (4) (5) (6)



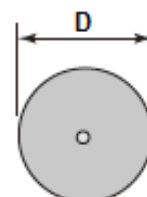
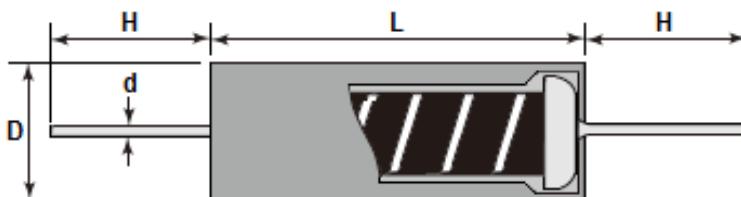
No	Item	Code	Description	Series Reference
(1)	Meritek Series	MFM	Metal Film Resistor Molded Type	Axial Type
(2)	Power Rating	25	25: 1/4W	10: 1/10W, 12: 1/8W, 50: 1/2W
(3)	T.C.R.	G	G: ± 25 ppm/°C	L: ± 5 , K: ± 10 , H: ± 15 , E: ± 50 ppm/°C
(4)	Resistance	2002	2002: 20K Ω	First 3 are significant, Fourth is a multiplier (10^x)
(5)	Tolerance	B	B: $\pm 0.1\%$	A: $\pm 0.05\%$, C: $\pm 0.25\%$, D: $\pm 0.5\%$, F: $\pm 1\%$
(6)	Packaging Type	A	A: Tape and Ammo	B: Bulk

ELECTRICAL CHARACTERISTICS

Type	Power Rating (W)		Max Working Voltage (V)	Resistance (Ω)	T.C.R. (ppm/°C) at (25~85°C)	Tolerance (%)
	70°C	125°C				
MFM10	0.25	0.1	200	0.01~10	± 5 , ± 10 , ± 15 , ± 25 , ± 50	± 0.01 , ± 0.02 , ± 0.05 , ± 0.1 , ± 0.25 , ± 0.5 , ± 1 , ± 5
MFM12	0.5	0.125	250	0.01~10		
MFM25	0.75	0.25	300	0.01~10		
MFM50	1	0.5	350	0.01~10		

DIMENSIONS

Type	Dimensions (mm)		
	L	D	d
MFM10	6.8 ± 0.4	2.5 ± 0.4	0.6 ± 0.05
MFM12	10.2 ± 0.4	3.8 ± 0.4	0.6 ± 0.05
MFM25	15.1 ± 0.4	5.2 ± 0.4	0.6 ± 0.05
MFM50	18.4 ± 0.4	6.5 ± 0.4	0.8 ± 0.05

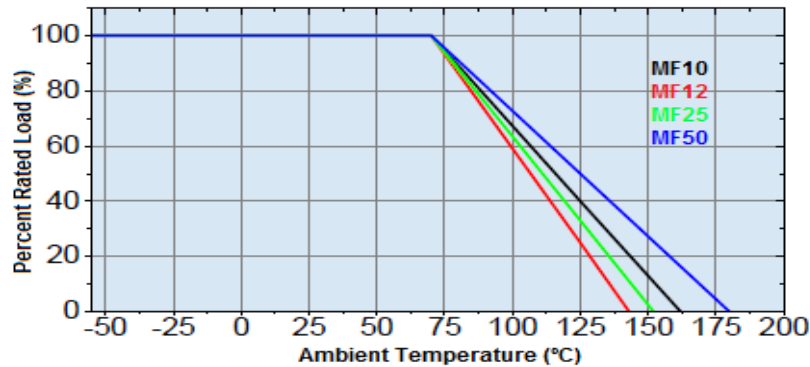


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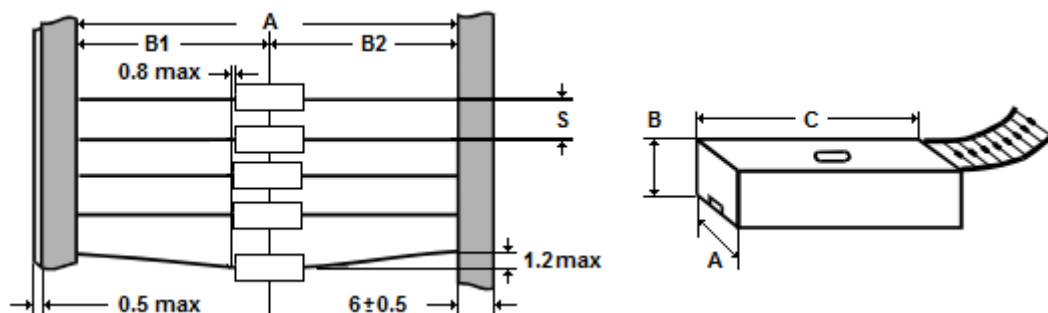
POWER DERATING CURVE



RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Condition	Requirement
Load Life	125°C, rated power for 1000 hours	$\Delta R \leq \pm (0.5\% + 0.05\Omega)$
Dielectric Withstanding Voltage	1000V for 1 minute	$\Delta R \leq \pm (0.25\% + 0.05\Omega)$
Rapid Temperature Change	-65 ~ 125°C, 5 cycles, 15 minutes at each extreme	$\Delta R \leq \pm (0.25\% + 0.05\Omega)$
Short Time Overload	2.5 times rated power for 5 seconds	$\Delta R \leq \pm (0.25\% + 0.05\Omega)$
Low Temperature Storage	-65°C at rated power for 1 hour	$\Delta R \leq \pm (0.25\% + 0.05\Omega)$
Resistance to Soldering Heat	260 ± 10°C, for 10 ± 1 second	$\Delta R \leq \pm (0.1\% + 0.05\Omega)$
Moisture Resistance	-10 ~ 65°C, Relative Humidity > 90%, 240 hours	$\Delta R \leq \pm (0.5\% + 0.05\Omega)$
Vibration, High Frequency	10 ~ 1000Hz, 0.75mm, 200m/s ²	$\Delta R \leq \pm (0.25\% + 0.05\Omega)$

PACKAGING SPECIFICATION



Power Rating	Tape Dimensions (mm)				Box Dimensions (mm)			Quantity Per Box
	A	B1, B2	S	Max Deviation of S	A	B	C	
1/10W 1/8W	52~53	1.2	5	1mm per 10 Spacing	80	75	264	5,000
	26~27	1	5		80	75	264	5,000
1/4W	52~53	1.2	5	1mm per 10 Spacing	80	105	264	5,000
	26~27	1	5		80	105	264	5,000
1/2W	52~53	1.2	5	1mm per 10 Spacing	80	46	264	1,000

Meritek Resistor Series: <http://www.meritekusa.com/EN/productlist/node/2>

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*Specifications subject to change without notice.