

Metal Film Resistor Flame Proof Type

MFP Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ 155°C
- Low Noise
- Low T.C.R.: 200, 100, 50, 25, 15, 10, and 5ppm/°C
- High Precision: Tolerances of 1, 0.5, 0.25, 0.1, and 0.05%



PART NUMBERING SYSTEM

MFP 50S G 2002 B A
(1) (2) (3) (4) (5) (6)

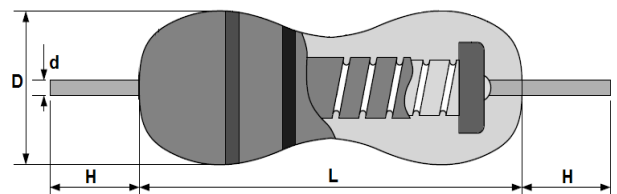


No	Item	Code	Description	Series Reference
(1)	Meritek Series	MFP	Metal Film Resistor	Axial Type
(2)	Power Rating	50S	50S: 1/2W miniature size	S: Miniature size, 25:1/4W, 100: 1W, 200: 2W, 300S: 3WS
(3)	T.C.R.	G	G: ±25ppm/°C	L: ±5ppm/°C, K: ±10ppm/°C, H:±15ppm/°C, E: ±50ppm/°C C: ±100ppm/°C, B: ±200ppm/°C
(4)	Resistance	2002	2002:20KΩ	0R10: 0.1Ω ~ 1004: 1MΩ
(5)	Tolerance	B	B: ±0.1%	C: ±0.25%, D: ±0.5%, F: ±1%
(6)	Packaging Type	A	A: Tape and Ammo	B: Bulk

ELECTRICAL CHARACTERISTICS AND DIMENSIONS

Power Rating	Dimensions (mm)				Max Working Voltage	Max Overload Voltage	Dielectric Withstand Voltage
	D	L	H	d			
1/4W	2.3±0.3	6.3±0.5	28±2.0	0.55±0.03	250V	500V	350V
1/2WS	2.3±0.3	6.3±0.5	28±2.0	0.55±0.03	300V	500V	350V
1/2W	3.2±0.5	9.0±0.5	26±2.0	0.65±0.03	350V	500V	400V
1WS	3.2±0.5	9.0±0.5	26±2.0	0.65±0.03	400V	600V	400V
1W	4.5±0.5	11.5±1.0	35±2.0	0.78±0.03	500V	700V	500V
2WS	4.5±0.5	11.5±1.0	35±2.0	0.78±0.03	500V	700V	500V
2W	5.0±0.5	15.5±1.0	32±2.0	0.78±0.03	500V	1000V	500V
3WS	5.0±0.5	15.5±1.0	32±2.0	0.78±0.03	500V	1000V	500V

Resistance Range (Ω)	Tolerance
0.1~1M	±0.5%, ±1%
0.1~100K	±0.25%, ±0.1%



Flame Proof Silicone Coating Resistor Body Color:

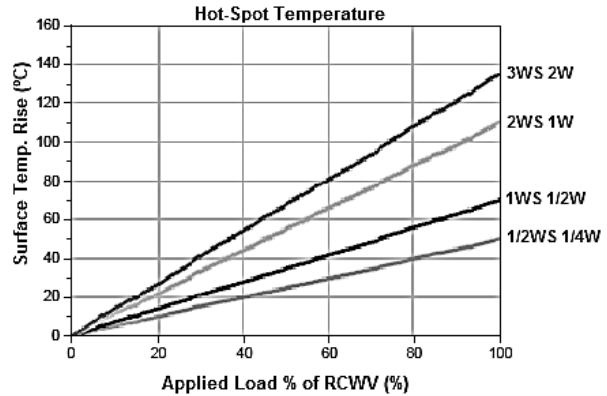
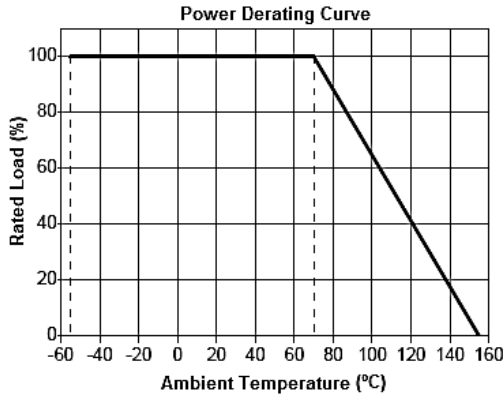
1. Normal Size: Gray
2. Miniature Size: Pink

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CHARACTERISTIC CURVES



RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Condition	Requirement
Short Time Overload	2.5 times RCWV for 5sec.	$\Delta R = \pm(0.25\% \pm 0.05\Omega)$
Pulse Overload	4 times RCWV for 1000 cycles (1sec. on, 25sec. off)	$\Delta R = \pm(0.75\% \pm 0.05\Omega)$
Insulation Resistance	In V-Block-	> 10000M Ω
Load Life	70°C at RCWV for 1000 hrs. (1.5hrs on, 0.5hrs off)	$\Delta R = \pm(1.5\% \pm 0.05\Omega)$
Load Life in Humidity	40±2°C; 90~95% RH at RCWV for 1000 hrs. (1.5 hrs on, 0.5hrs. off)	$\Delta R = \pm(1.5\% \pm 0.05\Omega)$
Solderability	260±5°C for 2±0.5sec.	95% minimum coverage
Resistance to Solvent	Trichloroethane for 1min. with ultrasonic	No deterioration of coatings or markings
Terminal Strength	Direct load for 10sec. in the direction of the terminal leads.	Tensile: ≥ 2.5kg

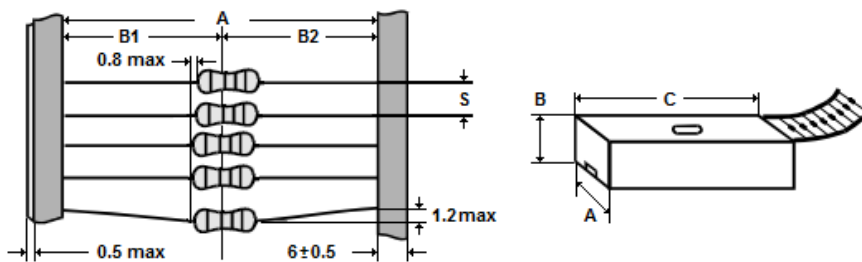
Notes:

Reference Standards: IEC 60115-1

Storage Temperature: 25±3°C; Humidity < 80% RH

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

PACKAGING SPECIFICATION



Power Rating	Tape Dimensions (mm)				Box Dimensions (mm)			Quantity Per Box
	A	B1-B2	S	Max Deviation of S	A	B	C	
1/4W 1/2WS	52~53	1.2	5	1mm per 10 Spacing	80	105	264	5,000
	26~27	1	5					
1/2W 1WS	52~53	1.2	5	1mm per 10 Spacing	80	46	264	1,000
1W 2WS	52~53	1.5	5	1mm per 10 Spacing	103	82	265	1,000
	73~74	1.5						
2W 3WS	52~53	1.5	10	1mm per 10 Spacing	103	96	265	1,000
	73~74	1.5						

*Specifications subject to change without notice.