

# Metal Film Resistor Ultra-Small Flame Proof Type

MFP(SS) Series

MERITEK

## FEATURE

- Low Noise, High Stability
- Low T.C.R. and Wide Resistance Range
- Flameproof Multi-Layer Coating Meets UL-94V-0
- Flameproof Feature Meets Overload Test UL-1412



## PART NUMBERING SYSTEM

MFP 2W SS C 105 J TA  
(1) (2) (3) (4) (5) (6) (7)

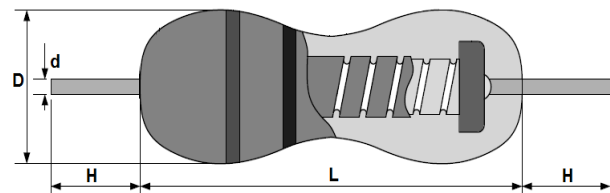


No	Item	Code	Description	
(1)	Meritek Series	MFP	Metal Film Resistor, Flame Proof Type, Ultra Small size	
(2)	Power Rating	2W	2W: 2W	1/2W, 1W, 3W, 4W
(3)	Size Code	SS	SS: Ultra Small size	S: Small, Blank: Standard Size
(4)	T.C.R.	C	C: $\pm 100\text{ppm}/^\circ\text{C}$	G: $\pm 25\text{ppm}/^\circ\text{C}$ , E: $\pm 50\text{ppm}/^\circ\text{C}$ , B: $\pm 200\text{ppm}/^\circ\text{C}$
(5)	Resistance	105	105: 1M $\Omega$	5R0: 5.0 $\Omega$ ~ 105: 1M $\Omega$
(6)	Tolerance	J	J: $\pm 5\%$	D: $\pm 0.5\%$ , F: $\pm 1\%$
(7)	Internal Code	TA	TA or A: Tape and Ammo	B or BU: Bulk, TR or R: Tape and Reel

## ELECTRICAL CHARACTERISTICS AND DIMENSIONS

Power Rating	Dimensions (mm)				Max Working Voltage	Max Overload Voltage	Dielectric Withstand Voltage
	D	L	H	d			
1/2W	1.8 $\pm$ 0.3	3.1~4.0	29 $\pm$ 2.0	0.45 $\pm$ 0.03	200V	400V	300V
1W	2.3 $\pm$ 0.3	6.3 $\pm$ 0.5	28 $\pm$ 2.0	0.55 $\pm$ 0.03	350V	600V	400V
2W	3.2 $\pm$ 0.5	9.0 $\pm$ 0.5	26 $\pm$ 2.0	0.65 $\pm$ 0.03	500V	700V	500V
3W	4.5 $\pm$ 0.5	11.5 $\pm$ 1.0	35 $\pm$ 2.0	0.78 $\pm$ 0.03	750V	1000V	700V
4W	5.0 $\pm$ 0.5	15.5 $\pm$ 1.0	32 $\pm$ 2.0	0.78 $\pm$ 0.03	800V	1000V	1000V

Power Rating	Resistance ( $\Omega$ )	Tolerance
1/2W	10K~1M	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 5\%$
1W	5R~1M	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 5\%$
2W	5R~1M	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 5\%$
3W	10K~1M	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 5\%$
4W	10K~1M	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 5\%$



Flame Proof Silicone Coating Resistor Body Color: Ultra Size: Blue

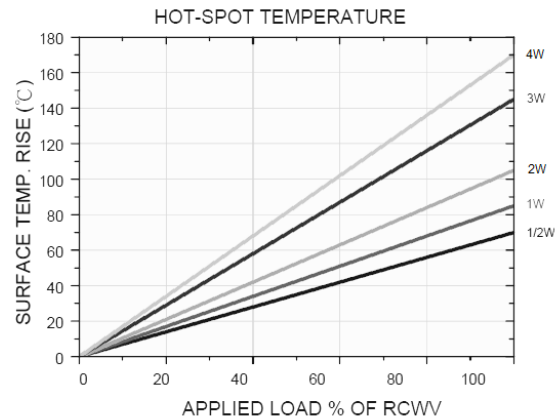
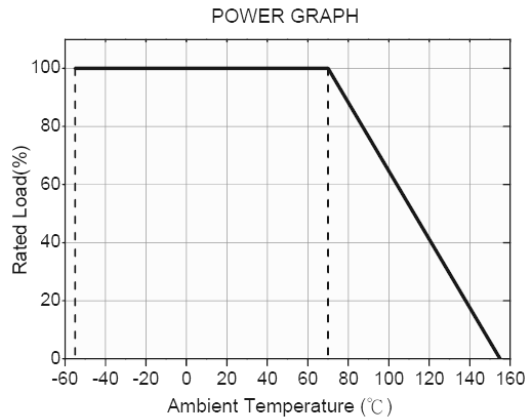
# Metal Film Resistor

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### CHARACTERISTIC CURVES



### RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Condition	Requirement
Operating Temperature	-55 °C ~ 155°C	--
Short Time Overload	2.5 times RCWV for 5sec.	$\Delta R = \pm(0.5\% \pm 0.05\Omega)$
TCR	R Value at room temperature and room temperature+100 °C	By type
Pulse Overload	4 times RCWV for 1000 cycles (1sec. on, 25sec. off)	$\Delta R = \pm(1.0\% \pm 0.05\Omega)$
Voltage Proof	In V-block for 60 Second	No Breakdown
Insulation Resistance	In V-Block	> 10000M $\Omega$
Load Life	70°C at RCWV for 1000 hrs. (1.5hrs on, 0.5hrs off)	$\Delta R = \pm(2.0\% \pm 0.05\Omega)$
Load Life in Humidity	40 $\pm$ 2°C; 90~95% RH at RCWV for 1000 hrs. (1.5 hrs on, 0.5hrs. off)	$\Delta R = \pm(2.0\% \pm 0.05\Omega)$
Solderability	260 $\pm$ 5°C for 2 $\pm$ 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: $\geq$ 2.5kg

Notes:

Reference Standards: IEC 60115-1, Storage Temperature: 25 $\pm$ 3°C; Humidity < 80% RH

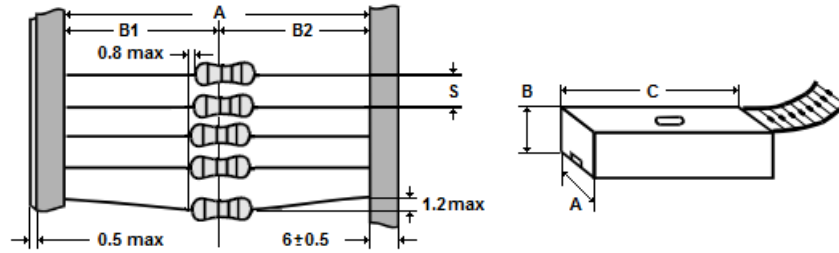
Rated Continuous Working Voltage (RCWV) =  $\sqrt{\text{Power Rating} * \text{Resistance Value}}$

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## PACKAGING SPECIFICATION



Power Rating	Tape Option1 (mm)		Tape Option2 (mm)		Spacing(mm)	Box Dimensions (mm)			Quantity Per Box
	A	B1-B2	A	B1-B2		A	B	C	
1/2W	26~27	1	52~53	1.2	5	80	75	264	5,000
1W	26~27	1	52~53	1.2	5	80	105	264	5,000
2W	52~53	1.2	-	-	5	80	46	264	1,000
3W	52~53	1.5	73~74	1.5	5	103	82	265	1,000
4W	52~53	1.5	73~74	1.5	10	103	96	265	1,000

Notes: Max. deviation of space is 1mm per 10 spacing.

\*Specifications subject to change without notice.