

Melf Carbon Film Resistors

# MCP Type

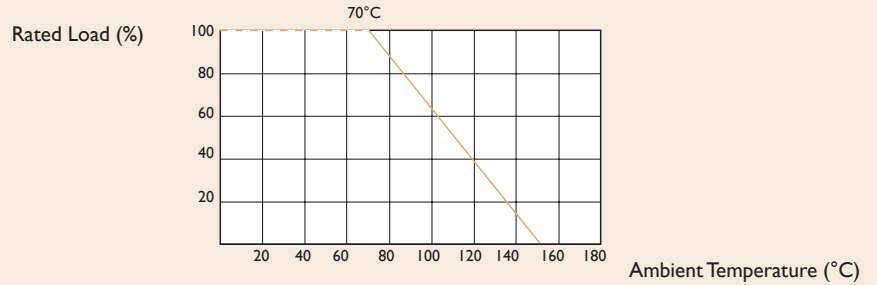
## Power Type Miniature [ MCP Series ]



### FEATURES

- Industry's Lowest Cost
- Delivery From Stock in Taped and Reel, Bulk
- Exceptional Long-Term Stability
- Exceeds Carbon Comp MIL-R-111 Performance
- Power Rating: 1/8W, 1/4W, 1/2W, 1W
- Resistance Tolerance:  $\pm 2\%$ ,  $\pm 5\%$

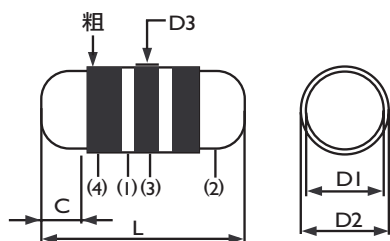
### DERATING CURVE



### TABLE I TEMPERATURE COEFFICIENT

STYLE	Max. Value of Temp. Coefficient ppm/°C		
	under 100K $\Omega$	100K $\Omega$ ~1M $\Omega$	1M $\Omega$ ~10M $\Omega$
MCP1SS, MCP2SS	+350	-700	-1500

### DIMENSIONS



Unit : mm

STYLE	DIMENSION			
Miniature	L	D1	D2 max	C
MCP1SS	5.9 $\pm$ 0.2	2.2 $\pm$ 0.15	2.4	0.5
MCP2SS	8.5 $\pm$ 0.2	3.2 $\pm$ 0.20	3.4	0.5



Note :

## ELECTRICAL CHARACTERISTICS

STYLE	MCP1SS	MCP2SS
Power Rating at 70°C	1W	2W
Maximum Working Voltage	350V	350V
Maximum Overload Voltage	700V	700V
Open Temp. Range	-55°C to +155°C	
Standard Value Range	1Ω~10MΩ	
Temperature Coefficient	See table I	

\* Standard resistance is 1Ω~10MΩ, below or over this resistance on request

## ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5 2.5Times RCWV for 5 Seconds	±(0.75%+0.05Ω)
Dielectric Withstanding Voltage	JIS-C-5202 5.7 in V-Block for 60 Seconds	by Type
Temperature Coefficient of Resistance	JIS-C-5202 5.2 -55°C to +155°C	by Type
Insulation Resistance	JIS-C-5202 5.6 in V-Block	>1000MΩ
Solderability	JIS-C-5202 6.5 235±5°C for 5±0.5 Seconds	95% Min.Coverage
Resistance to Solvent	JIS-C-5202 6.9 IPA for 1 Min. with Ultrasonic	No Deterioration of Coatings and Markigs
Terminal Strength	Direct Load for 10 Sec. in the Direction of The Terminal Leads	≥2.5kg(24.5N)
Pulse Overload	JIS-C-5202 5.8 4 Times RCWV 10000 Cycles(1 Sec. on, 25 Sec. of)	±(1%+0.05Ω)
Load Life in Humidity	JIS-C-5202 7.9 40±2°C, 90~95% RH at RcWV for 1000 Hrs. (1.5 Hrs. on, 0.5 Hrs. off)	±(3%+0.05Ω)
Load Life	JIS-C-5202 7.10 70°C at RCWV for 1000 Hrs.(1.5 Hrs. on, 0.5 Hrs. off)	±(3%+0.05Ω)
Temperature Cycling	JIS-C-5202 7.4 -55°C→Room Temp.→+155°C→Room Temp. for 5 Cycles	±(1%+0.05Ω)
Resistance to Soldering Heat	JIS-C-5202 6.4 350°C±10°C for 3±0.5 Seconds	±(1%+0.05Ω)

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