



小型氧化金屬膜電阻器

Type: MOS Series

Resistance Range : 1R ~ 510KΩ

Miniature Style Metal Oxide Resistor - MOS

◆ FEATURES

- High power-to-size ratio for significant space savings.
- Excellent long-term stability.
- Complete flameproof construction.
- High surge/overload capability.
- Wide resistance range : 1Ω ~ 180K Ω.
- Standard tolerance : ±5% , ± 2%

Figure



◆ INTRODUCTION

These Metal Oxide Resistors offer excellent performance in applications where stability and uniformity of characteristics are desired. They provide lower cost alternatives to Charbon Composition Resistors and General Purpose Metal Films. Metal Oxide also can replace many low power General Purpose Wirewound applications, saving both money and time, with shorter delivery cycles.

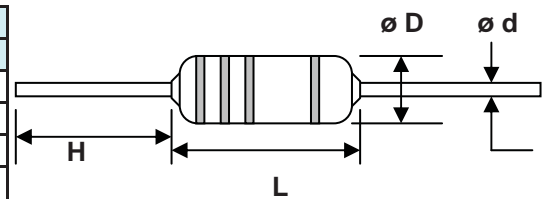
◆ ORDERING PROCEDURE:

Example: MOS500F102JTB

Power:	Type:	T.C.R./°C	Resistance	Tolerance	Package
1/2WS	MOS025	K=±100ppm F=±200ppm G=±300ppm	109 = 1Ω	G = ±2%	TB = T/Box.
1WS	MOS100		100 = 10Ω	J = ±5%	B = Bulk
2WS	MOS200		101 = 100Ω	K = ±10%	
3WS	MOS300		102 = 1KΩ		
5WS	MOS500		103 = 10KΩ		
7WS	MOS700		104 = 100KΩ		

◆ DIMENSION (mm)

Power:	STYLE	Dimension (mm)			
		L	ΦD	H	Φd
1/2WS	MOS025	6.0±0.2	2.3±0.3	28±2	0.55±0.02
1WS	MOS100	9.5±0.5	3.2±0.5	26±2	0.65±0.03
2WS	MOS200	11.0±0.5	4.5±0.5	35±2	0.78±0.03
3WS	MOS300	15±0.5	5.0±0.5	32±2	0.78±0.03
5WS	MOS500	17±0.5	6.5±0.5	35±2	0.78±0.03
7WS	MOS700	24.5±1	8.5±0.5	35±2	0.78±0.03



◆ RATED POWER

Power:	Power at 70°C	Maximum Voltage		Dielectric withstanding Voltage	Res. E96 Range(Ω)	T.C.R. ppm/°C
		Working	Overload			
1/2WS	MOS025	200V	350V	350V	1R ~510K	±200
1WS	MOS100	250V	400V	350V	1R ~510K	±200
2WS	MOS200	350V	600V	500V	1R ~510K	±200
3WS	MOS300	500V	600V	500V	1R ~510K	±200
5WS	MOS500	800V	1000V	750V	1R ~510K	±200
7WS	MOS700	1000V	1000V	750V	1R ~510K	±200
Operating temperature Range:		-55°C ~ 155°C				

* Rated power is maximum power which can continuously loaded at specified ambient temperature 70°C, however when the ambient temperature exceeds 70°C, rated power should be determined from the derating curve of Fig 1.

■ Value Range for standard resistance, below over this resistance on request.

※美隆公司產品規格及其特性參數的改變或更新恕不另行通知。

※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve.

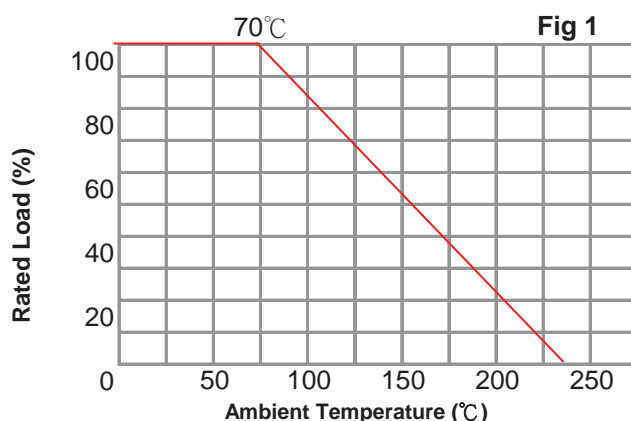


◆ ENVIRONMENTAL CHARACTERISTICS

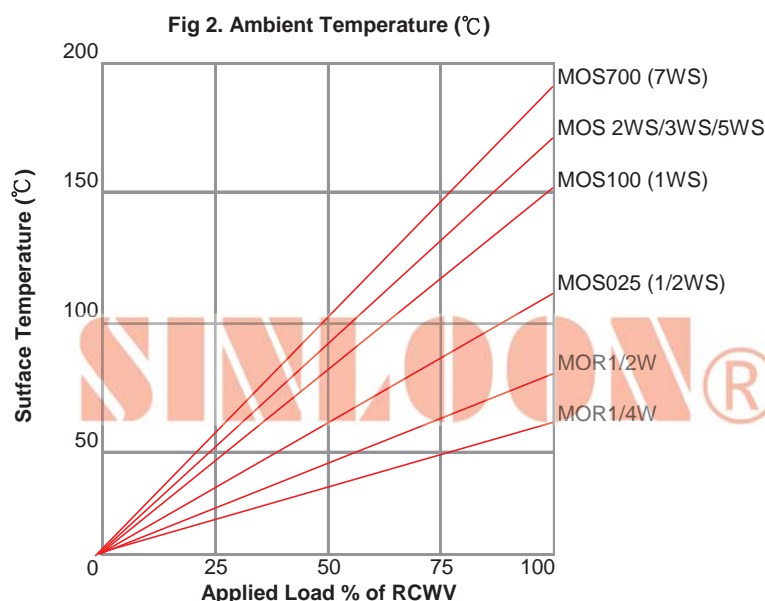
PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5 : 2.5 times RCWV for 5 seconds	±(0.75%+0.05)Ω
Dielectric Withstanding V.	JIS-C-5202 5.7 : in V-Block for 60 seconds	By Type
Temperature Coefficient	JIS-C-5202 5.2 : -55°C ~+155°C	By Type
Insulation Resistance	JIS-C-5202 5.6 : in V-Block	≥ 1000 MΩ
Solderability	JIS-C-5202 6.5 : 230°C for 5±0.5 seconds	95% min. coverage
Resistance to Solvent	JIS-C-5202 6.9 : Trichroethance for 1 min. with ultrasonic	no deterioration
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 time RCWV 10000 cycles(1 sec.on, 25 sec.off)	±(2%+0.05)Ω
Load Life in Humidity	JIS-C-5202 7.9 : 40±2°C, 90~95% RH at RCWV for 1000 hrs (1.5hrs. on, 0.5 hrs. off)	±(3%+0.05)Ω
Load Life	JIS-C-5202 7.10 : 70°C at RCWV for 1000hrs (1.5hrs.on, 0.5hrs.off)	±(3%+0.05)Ω
Temperature Cycling		±(1%+0.05)Ω
Soldering Heat		±(1%+0.05)Ω

■ Rated continuous Working Voltage (RCWV) = $\sqrt{\text{POWER RATING} \cdot \text{RESISTANCE VALUE}}$

◆ POWER GRAPH

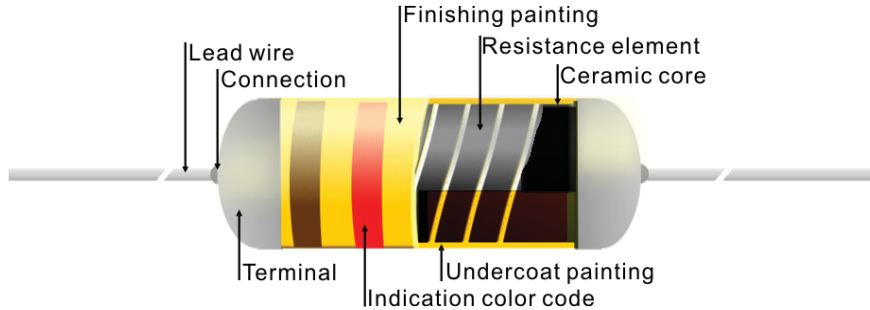


◆ HOT-SPOT TEMPERATURE



◆ **STRUCTURE DIAGRAM**

The construction of resistor (MOS Series) shall be Figure.



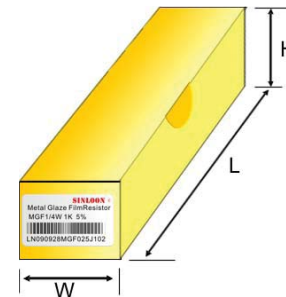
Item	Material
Ceramic Core	High alumina ceramic is used
Resistance element	The resistor element shall consist of metal glaze film.
Terminal	Tinned iron cap.
Connection	The lead wire, Which is plated with solder, shall be mounted to the caps by welding process.
Lead Wire	Soldered or tinned annealed copper wire.
Undercoat Painting	Electric insulation varnish.
Finishing painting	Epoxy resin is used.
Indiction	Color code.

◆ **Painting Resistor body color**

(1)	Miniature size	
-----	----------------	--

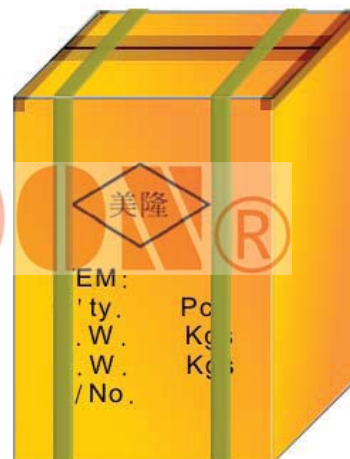
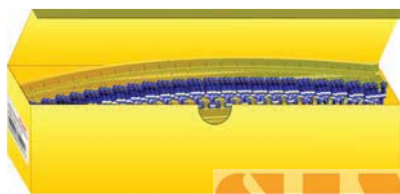
◆ **PACKAGE:**

STYLE		Dimensions (mm)			Quantity
Power	Type	L	W	H	
1/2WS	MOS025	264	80	75	5,000
1WS	MOS100	264	80	105	5,000
2WS	MOS200	264	80	35	1,000
3WS	MOS300	264	80	46	1,000
5WS	MOS500	265	103	82	1,000
7WS	MOS700				500



Inner Box

Carton



SINLOON®