



# METAL OXIDE FILM RESISTORS

## 金屬氧化膜電阻

### INTRODUCTION

Through the developments of electronic equipments and computerized devices, it has been urging all kinds of components to minimization, light-weight, durability, high stability and reliability. To keep quality stable under high temperature operation, the per unit film area shall take large load. Metal Oxide Film resistors is the one that can satisfy the requirements.

MOS: Small-sized metal oxide film resistors, using selected ceramic, with high performance which is suitable for compact sets.

### FEATURES

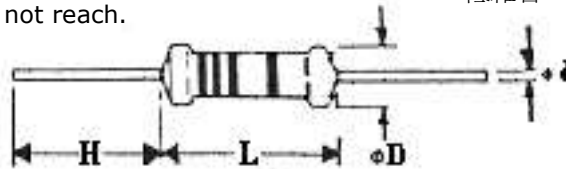
- Small in size comparatively
- Electrical and mechanical stability and high reliability.
- Nonflame painting, "Solvent" proof, resistant to heat & humidity.
- Annual shift is low for the strengthened metal oxide film.
- Low noise; can produce high resistance value which wire wound resistors can not reach.

隨著電子設備之發展其構成之零件亦趨向小型化、輕型化及耐用化等傾向。電阻在高溫下要有長期之安定性，電阻皮膜之單位面積就要負載較高之電力，適其要求之電阻是金屬氧化皮膜電阻器。

小型化高性能金屬氧化皮膜電阻器，選用高品質瓷棒來製作，尺寸較 MO 大幅縮小，亦能發揮大型尺寸之功效。

### 特性

- 小型化使用方便，耐超負載電流而不致斷阻。
- 電氣及機械上之性能極安定，具高度信賴性。
- 不燃性絕緣塗裝，可耐溶劑清洗及適高溫。
- 已氧化過之電阻皮膜經年變化甚少，皮膜強度特強。
- 低雜音，可製作繞線電阻器不能製作之高阻值。



### SPECIFICATION

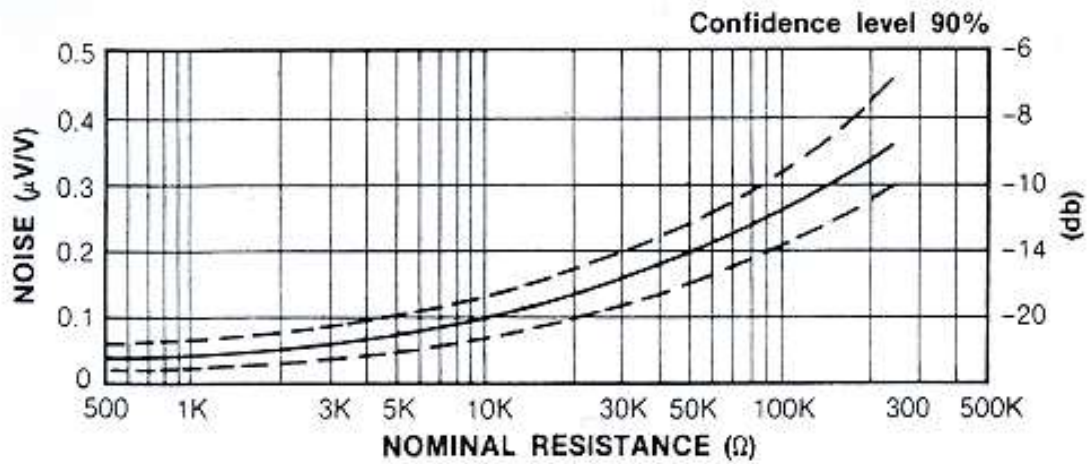
TYPE		Max. WORKING V	Max. OVERLOAD V	RESISTANCE RANGE ±5% (J)	TYPE		DIMENSION (mm)				
MO	MOS				MO	MOS	L±1	D±0.5	d±0.1	H(MIN)	
1/4W	—	250V	500V	1Ω-1M	1/4W	1/2W	5.5	2.0	0.5	25	
1/2W	1/2W	250V	600V	1Ω-1M	1/2W	1W	8.5	3.0	0.56	27	
1W	1W	300V	600V	1Ω-1M	1W	2W	11	4.0	0.68	27	
2W	2W	350V	700V	1Ω-1M	2W	3W	15	4.5	0.75	27	
3W	3W	500V	800V	1Ω-1M	3W	5W	17	5.5	0.75	27	
5W	5W	500V	1000V	10Ω-1M	5W	7W	25	8.0	0.8	27	
7W	7W	750V	1000V	10Ω-150KΩ	7W	10W	32	8.0	0.8	27	

Special type on request

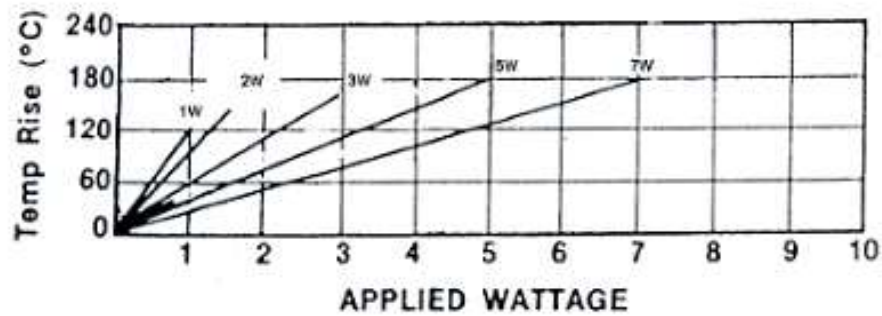
### CHARACTERISTICS

REQUIRERISTICS	PERFORMANCE	TEST METHOD	
		JIS-C-5202	MIL-STD-202
Operating Temp. Range	-55°C ~ +155°C	-----	-----
Temp. Coefficient(ppm/°C)	± 300	5.2	METHOD 304
Short Time Overload	$\Delta R_{max} \leq \pm(1\% + 0.05\Omega)$	5.5-A	-----
Resistance to Soldering Heat	$\Delta R_{max} \leq \pm(1\% + 0.05\Omega)$	6.4.350°C 3 Sec	METHOD 304
Temp. Cycling	$\Delta R_{max} \leq \pm(1\% + 0.05\Omega)$	7.4.-55°C/85°C.5 cycles	METHOD 210
Moisture Resistance	$\Delta R_{max} \leq \pm 5\%$	7.9 95%RH on-off 1.000 hr	METHOD 107
Load Life	$\Delta R_{max} \leq \pm 5\%$	7.10 70°C on-off 1.000 hr	METHOD 106
Dielectric Withstanding Voltage	$\Delta R_{max} \leq \pm(0.5\% + 0.05\Omega)$	5.7-A	METHOD 108
Insulation Resistance	$> 10^4 M\Omega$	5.6-A	METHOD 301
Non-Combustibility	The resistor shall withstand Overload test in accordance with Article UL 492.2 13 without producing a fire hazard.		

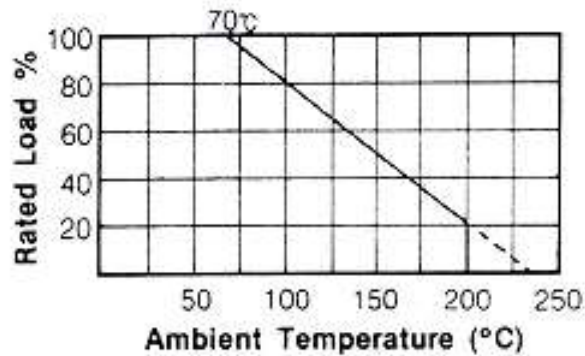
## CURRENT NOISE



## TEMPERATURE RISE



## DERATING CURVE



**RO**

Series :  
METEL  
OXIDE  
FILM  
Resistor

**02**

Wattage :  
R004=1/4W  
R002=1/2W  
R01W=1W  
R02W=2W

**10K0**

Value :  
0E50=0.5R  
2E30=2.3R  
1K00=1K  
10M0=10M

**J**

Tolerance :  
J=5%

**I**

Packing :  
T=Tapping  
B=Bulk  
M=Forming