

METAL OXIDE FILM RESISTORS

How To Order:

Series: MO Part No.

<u>MO</u>	<u>25</u>	<u>J</u>	<u>2K3</u>	<u>I</u> <u>S1</u>
Series Metal Oxide Resistor	Wattage MO25=1/4W MO50=1/2W MO100=1W MO200=2W MO300=3W MO500=5W	Tolerance F=1% G=2% J=5%	Value 1R=1 ohm 2.3R=2R3 1K=1000 ohm 2.3K=2K3 2.3M=2M3	Packing T=Taped B=Bulk

(S1 means special spec. Standard goods is without it.)

Description: METAL OXIDE RESISTOR 1/4W 5% 2K3

Note:

MO25=1/4W, MO50=1/2W, MO100=1W, MO200=2W, MO300=3W

The normal packing of METAL OXIDE RESISTOR is Tape / Box.

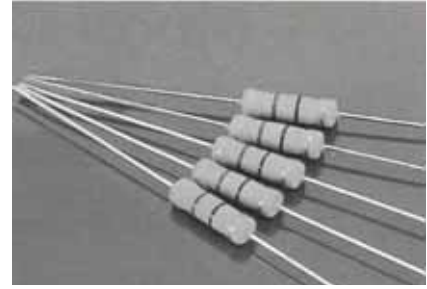
The normal tolerance of METAL OXIDE RESISTOR is 5%.

METAL OXIDE FILM RESISTORS

MO Series (Flame-Proof Type)

1 / 4 W, 1 / 2 W, 1 W, 2 W, 3 W, 5 W

MO-25, MO-50, MO-100, MO-200, MO-300, MO-500



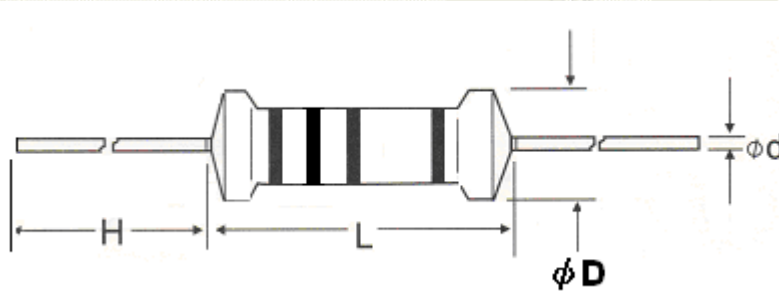
INTRODUCTION

These Metal Oxide Resistors offer excellent performance in applications where stability and uniformity of characteristics are desired. They provide lower cost alternatives to Carbon 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.

FEATURES

- High power-to-size ratio for significant space savings.
- Excellent long-term stability.
- Complete flameproof construction. High surge / overload capability.
- Wide resistance range: 1 ~1M
Standard tolerance: $\pm 5\%$

DIMENSIONS:



STYLE	DIMENSION (mm)				POWER RATING (Watt)	VALUE RANGE
	L	ØD	H	Ød		
MO-25	6.5±0.5	2.3±0.3	28±2	0.6±0.05	1/4W	1 ~1M
MO-50	9.5±0.5	3.2±0.5	26±2	0.6±0.05	1/2W	1 ~1M
MO-100	12±1.0	4.5±0.5	35±2	0.8±0.05	1W	1 ~1M
MO-200	15±1.0	5.5±0.5	35±3	0.8±0.05	2W	1 ~1M
MO-300	17±1.0	6.0±1.0	35±3	0.8±0.05	3W	1 ~1M
MO-500	25±1.0	8.5±1.0	35±3	0.8±0.05	5W	1 ~1M

METAL OXIDE FILM RESISTORS

ELECTRICAL CHARACTERISTICS

Style	MO-25	MO-50	MO-100	MO-200	MO-300	MO-500
Power Rating 70	1/4W	1/2W	1W	2W	3W	5W
Operating Temp. Range	-55 ~±155					
Max. Working Voltage	250V	250V	350V	350V	500V	750V
Max. Overload Voltage	400V	400V	600V	600V	800V	1000V
Dielectric Withstanding Voltage (AC)	300V	350V	1000V	1000V	1000V	1000V
Max. Intermittence Overload Voltage	500V	600V	1000V	1000V	1500V	1500V
Value Range ±1%, ±2%, ±5%	1 ~510K					
Temp. Coefficient (by Type)	±200ppm /					

The listed resistance range for standard resistance, below or over this resistance is on request.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5: 2.5 times RCWV for 5 seconds	±(1%+0.05)
Dielectric Withstanding V.	JIS-C-5202 5.7: in V-Block for 60 seconds	By Type
Temperature Coefficient	JIS-C-5202 5.2: -55 ~+155	MAX. 200ppm/
Insulation Resistance	JIS-C-5202 5.6: in V-Block	1000M
Solderability	JIS-C-5202 6.5: 245 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)
Load Life in Humidity	JIS-C-5202 7.9: 40±2 , 90~95% RH at RCWV for 1000 hrs (1.5 hrs. On, 0.5hrs. off)	±(5%+0.05)
Load Life	JIS-C-5202 7.10: 70 at RCWV for 1000 hrs (1.5 hrs. On, 0.5 hrs. off)	±(5%+0.05)
Temperature Cycling	JIS-C-5202 7.4: 65 ~room temp~150 ~room temp. For 5 cycle.	±(1%+0.05)
Soldering Heat	JIS-C-5202 6.4: 350±10 for 3±0.5 seconds	±(1%+0.05)

Rated continuous Working Voltage (RCWV)= $\sqrt{\text{power rating} \times \text{resistance value}}$

MO Series

FIG.1 DERATING CURVE

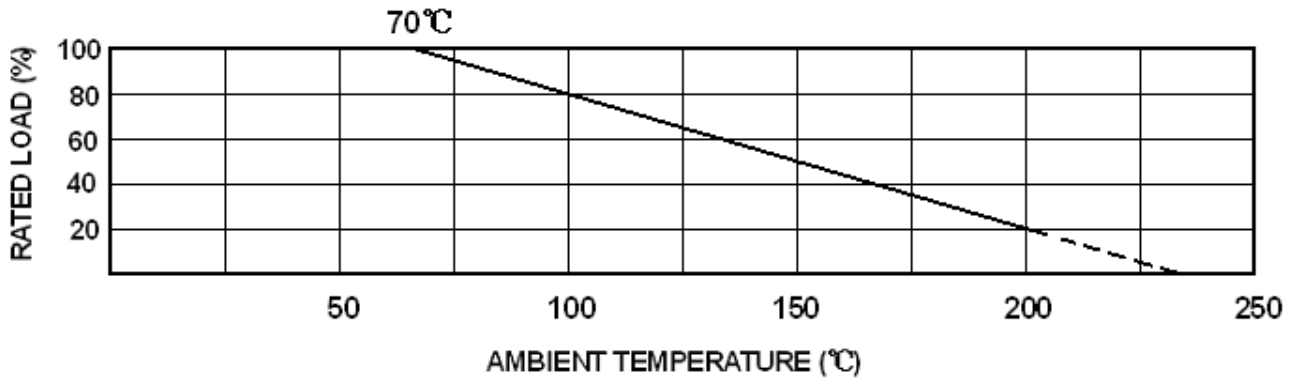


FIG.2 HOT-SPOT TEMPERATURE

