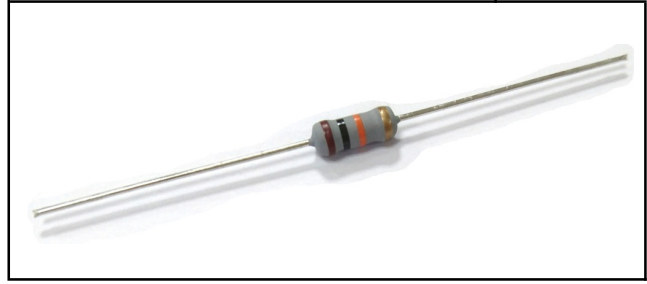


# Metal Oxide Resistors - MOF/MOF-S Series

## FEATURES

- Power rating: 1/4W to 5W at 70°C
- Superior electrical performance-commonly used in application with high endurance demands.
- Standard tolerance:  $\pm 5\%$
- Standard range: 10R-1M in E24 series
- Color band marking, gray body color
- Flameproof coating
- Mini size available (As MOF-S type)
- Operating temperature : -55°C ~+200°C

## STANDARD-Gray silicone



## By request - Pink silicone , Mini-size only

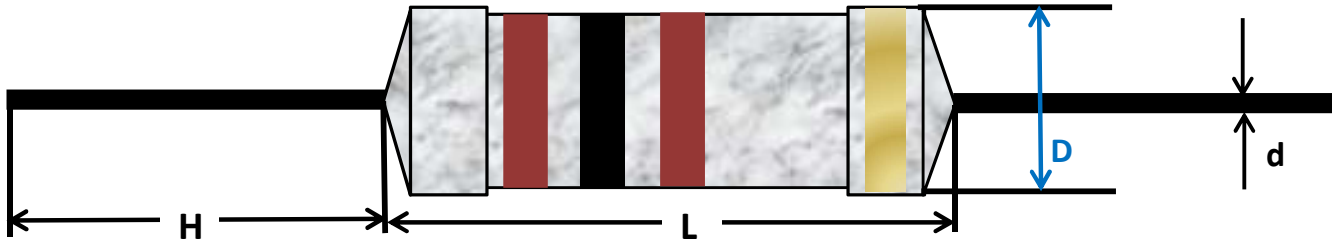


## MATERIAL

- Element: deposited oxide film
- Core: high purity ceramic  $Al_2O_3$
- Termination: standard solder-plated copper lead
- Coating: gray (pink is available in Mini-size by request) silicone



## GENERAL SPECIFICATION



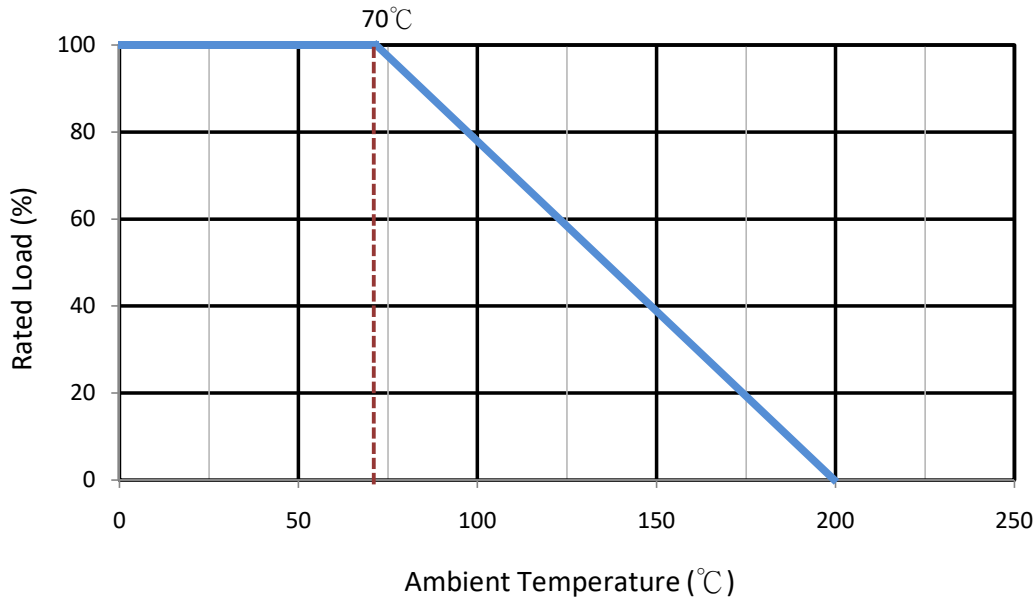
| TYPE          | DIMENSION (mm) |               |              |              | POWER RATING | MAXIMUM VOLTAGE |          | RESISTANCE RANGE $\pm 5\%$ |
|---------------|----------------|---------------|--------------|--------------|--------------|-----------------|----------|----------------------------|
|               | L              | D             | H            | $d \pm 0.05$ |              | WORKING         | OVERLOAD |                            |
| MOF1/8W-1/4WS | $3.2 \pm 0.2$  | $1.6 \pm 0.2$ | $27 \pm 3.0$ | 0.45         | 1/8W-1/4W    | 200V            | 400V     | $1 \Omega \sim 1M \Omega$  |
| MOF1/4W-1/2WS | $6.0 \pm 1.0$  | $2.3 \pm 0.5$ | $27 \pm 2.0$ | 0.56         | 1/4W-1/2W    | 250V            | 500V     | $1 \Omega \sim 1M \Omega$  |
| MOF1/2W-1WS   | $9.0 \pm 1.0$  | $3.0 \pm 0.5$ | $26 \pm 2.0$ | 0.59         | 1/2W-1W      | 350V            | 700V     | $1 \Omega \sim 1M \Omega$  |
| MOF1W-2WS     | $11.0 \pm 2.0$ | $4.0 \pm 1.0$ | $35 \pm 3.0$ | 0.80         | 1W-2W        | 500V            | 1000V    | $1 \Omega \sim 1M \Omega$  |
| MOF2W-3WS     | $15.0 \pm 2.0$ | $5.0 \pm 1.0$ | $35 \pm 3.0$ | 0.80         | 2W-3W        | 500V            | 1000V    | $1 \Omega \sim 1M \Omega$  |
| MOF 3W-5WS    | $17.0 \pm 2.0$ | $6.0 \pm 1.0$ | $34 \pm 3.0$ | 0.80         | 3W-5W        | 500V            | 1000V    | $1 \Omega \sim 1M \Omega$  |
| MOF 5W        | $24.0 \pm 2.0$ | $8.0 \pm 1.0$ | $35 \pm 2.0$ | 0.80         | 5W           | 750V            | 1000V    | $1 \Omega \sim 1M \Omega$  |

\* Maximum Working Voltage determined by  $E = \sqrt{PxR}$ , where E should not exceed value listed in column above

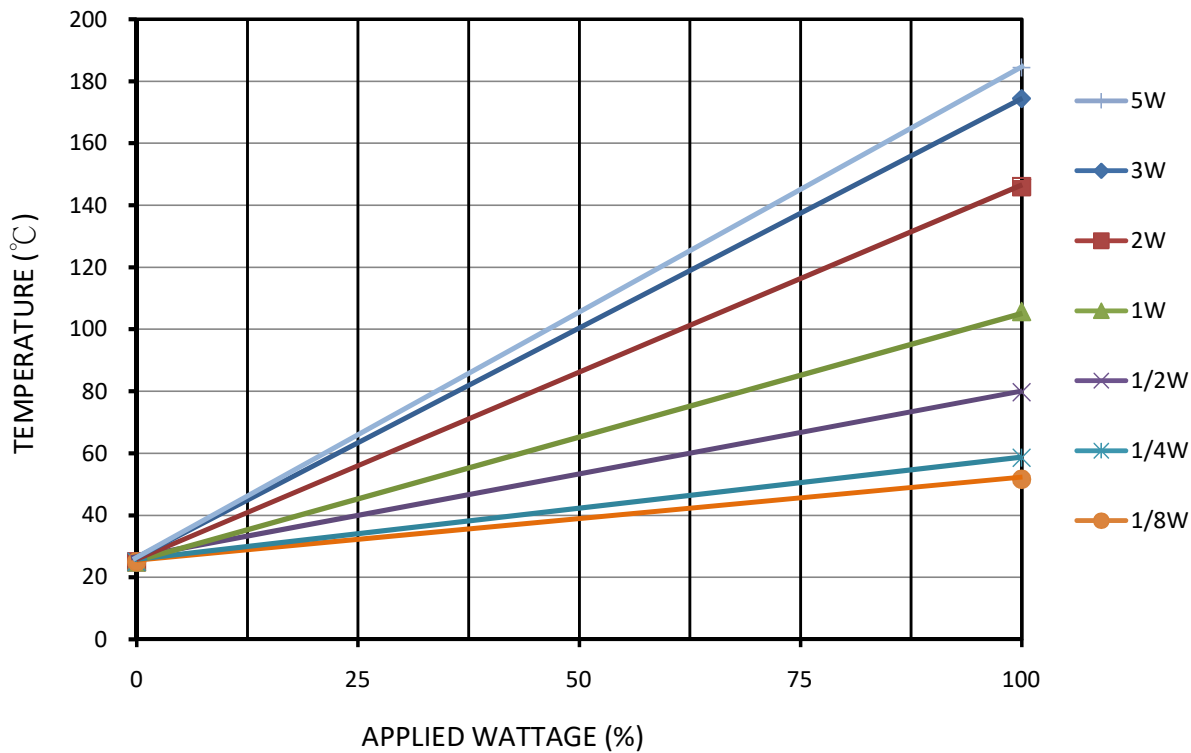
Maximum Overload Voltage equals to  $2.5xE$ , but should not exceed value listed in column above

\*\* Resistance 10R~10K beyond is metal film, consult factory for resistance not included

## DERATING CURVE



## SURFACE TEMPERATURE



## CHARACTERISTIC

| TEST                    | TEST METHOD  | APPRAISE              |
|-------------------------|--|-----------------------|
| Temperature Coefficient | IEC 60115-1 4.8 -55°C~155°C  | ±200ppm max.          |
| Load Life (1000 hours)  | IEC 60115-1 4.25 70±2°C at RCWV for 1000 hours (1.5 Hr. on , 0.5 Hr. off)      | <±1% typical, ±3% max |
| Shorttime Overload      | IEC 60115-1 4.13 2.5 times rated power for 5 sec.                              | ±0.5% Max.            |
| Temperature Cycling     | IEC 60115-1 4.19 -55°C → room temp. → +155°C → room temp. (5 cycles)           | ±1.0% Max.            |
| Moisture Resistance     | IEC 60115-1 4.24 40±2°C , 90-95% RH for 56 days , with 0.1 times RCWV          | ±1.0% Max.            |
| Insulation Resistance   | IEC 60115-1 4.6 in V-block for 60sec. , test voltage by type                   | 100MΩ Min.            |
| Effect of Soldering     | IEC 60115-1 4.18 260±3°C for 10±1 sec. immersed to point 3±0.5mm from the body | ±0.5% Max.            |

\* Total maximum resistance change is  $\Delta R \pm 0.01R$

**HOW TO ORDER :**

| <u>SERIES</u> | <u>WATTAGE</u> | <u>RESISTANCE</u> | <u>TOLERANCE</u> | <u>PACKAGE</u> |
|---------------|----------------|-------------------|------------------|----------------|
| MOF           | 1/4W           | 0R1=0.1Ω          | 5%               | T=TAPING BOX   |
|               | 1/2WS          | 10R=10Ω           |                  | R=TAPING REEL  |
|               | :              | 1K=1KΩ            |                  | B=BULK         |
|               | 3W             |                   |                  |                |
|               | 5W             |                   |                  |                |

**PACKAGE STANDARD PACKAGE QUANTITY :**

| TYPE       | T=TAPING BOX | R=TAPING REEL | B=BULK                    |
|------------|--------------|---------------|---------------------------|
| 1/8W-1/4WS | 5000         | 5000          | 1000 pcs/bag , 10kpcs/box |
| 1/4W-1/2WS | 5000         | 5000          | 1000 pcs/bag , 10kpcs/box |
| 1/2W-1WS   | 2000         | 2500          | 500 pcs/bag , 5kpcs/box   |
| 1W-2WS     | 1000         | 2000          | 500 pcs/bag , 2kpcs/box   |
| 2W-3WS     | 1000         | 1000          | 500 pcs/bag , 1kpcs/box   |
| 3W-5WS     | 500          | 1000          | 500 pcs/bag , 1kpcs/box   |
| 5W         | 250          | 500           |                           |