

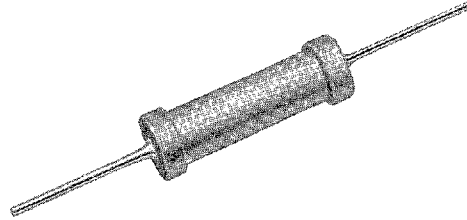


## METAL OXIDE RESISTORS

### MO SERIES

- Flameproof
- Meets overload test of UL#1412
- Meets solvent test of method 215 of MIL-STD-202
- Low cost alternative for power carbon composition and wirewounds

\*Manufactured in Japan.



#### PERFORMANCE CHARACTERISTICS (Tested Per MIL-R-22684 Rev. C):

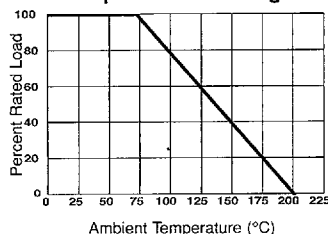
| ELECTRICAL  | MO 1/2          | MO 1            | MO 2            | MO 3            | MO 5            |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| Power Ratings @ 70°C (watts)  | 1/2             | 1               | 2               | 3               | 5               |
| Derated to 0 Load at  | 200°C           | 200°C           | 200°C           | 200°C           | 200°C           |
| Maximum Working Voltage (volts)                                     | 250             | 350             | 350             | 500             | 750             |
| Operating Temperature Range   | -55°C to +200°C | -55°C to +200°C | -55°C to +200°C | -55°C to +200°C | -55°C to +200°C |
| Resistance Range (ohms)   | 0.1 - 75K       | 0.1 - 100K      | 0.1 - 120K      | 1 - 150K        | 1 - 180K        |
| Tolerance (±%)  | 5 and 1         | 5 and 1         | 5 and 1         | 5 and 1         | 5               |
| <b>Environmental</b> (Operating Temperature Range: -55°C to +200°C) |                 |                 |                 |                 |                 |
| Moisture Resistance   | ±1.5%           | ±1.5%           | ±1.5%           | ±1.5%           | ±1.5%           |
| Thermal Shock   | ±1%             | ±1%             | ±1%             | ±1%             | ±1%             |
| Load Life @ 70°C - 1000 hrs.  | ±2%             | ±2%             | ±2%             | ±2%             | ±2%             |
| Shock and Vibration   | ±0.5%           | ±0.5%           | ±0.5%           | ±0.5%           | ±0.5%           |
| Resistance to Soldering Heat  | ±0.55±0.05Ω     | ±0.55±0.05Ω     | ±0.55±0.05Ω     | ±0.55±0.05Ω     | ±0.55±0.05Ω     |
| Terminal Strength   | ±0.5%           | ±0.5%           | ±0.5%           | ±0.5%           | ±0.5%           |
| Dielectric Withstand Voltage  | 400V RMS        | 700V RMS        | 700V RMS        | 800V RMS        | 800V RMS        |
| Maximum Pulse Voltage   | 400V            | 750V            | 1000V           | 1500V           | 1500V           |
| Insulation Resistance   | 10,000 meg min. | 10,000 meg min. | 10,000 meg min. | 10,000 meg min. | 10,000 meg min. |
| Voltage Coefficient   | 0.001%/V        | 0.001%/V        | 0.001%/V        | 0.001%/V        | 0.001%/V        |
| Short Time Overload   | ±(0.55±0.05Ω)   | ±(0.55±0.05Ω)   | ±(0.55±0.05Ω)   | ±(0.55±0.05Ω)   | ±(0.55±0.05Ω)   |

#### DIMENSIONS (Inches and (mm)):

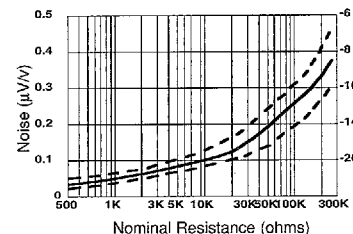
|        |                      |                      |                         | <b>PACKAGING:</b><br>MO 1: 2500/reel<br>MO 2: 1000/reel<br>MO 3: 500/ammo box<br>MO 5: 1000/bulk box<br>All Above: 1000/bulk box |  |
|--------|----------------------|----------------------|-------------------------|--|--|
|        | A                    | B                    | C                       | D  |  |
| MO 1/2 | 1.10±0.08 (28.0±2.0) | 0.35±0.04 (9.0±1.0)  | 0.028±0.002 (0.70±0.05) | 0.12±0.02 (3.0±0.5)  |  |
| MO 1   | 1.10±0.08 (28.0±2.0) | 0.43±0.04 (11.0±1.0) | 0.028±0.002 (0.70±0.05) | 0.16±0.02 (4.0±0.5)  |  |
| MO 2   | 1.50±0.12 (38.0±3.0) | 0.59±0.02 (15.0±0.5) | 0.031±0.002 (0.80±0.05) | 0.22±0.02 (5.5±0.5)  |  |
| MO 3   | 1.50±0.12 (38.0±3.0) | 0.98±0.04 (25.0±2.0) | 0.031±0.002 (0.80±0.05) | 0.34±0.04 (8.5±1.0)  |  |
| MO 5   | 1.50±0.12 (38.0±3.0) | 1.61±0.04 (41.0±1.0) | 0.031±0.002 (0.80±0.05) | 0.34±0.04 (8.5±1.0)  |  |

#### PERFORMANCE CURVES:

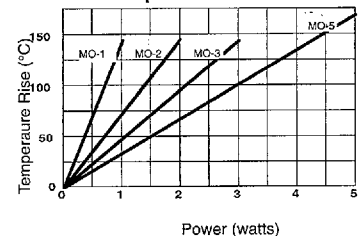
##### Power - Temperature Derating



##### Current Noise



##### Surface Temperature Rise vs Load



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