

Mini-Mox



0.25 Watt and 0.5 Watt Precision Thick Film Axial Terminal High Voltage/High Resistance



FEATURES

- RoHS compliant
- Wide resistance ranges
- Epoxy coating
- Metal oxide resistive element

APPLICATIONS

- Avionics
- Medical electronics
- High gain feedback applications
- Current pulse limiters
- Vacuum and space application

The Mini-Mox resistor is very versatile, covering a wide resistance range as well as a wide range of operating voltages. Provided with tolerances down to 1%, the Mini-Mox resistor works well in precision circuits.

SERIES SPECIFICATIONS

| Ohmite Series | Resistance Range (Ohms) | Power @25°C | Voltage Rating | Available Tolerances* |
|---------------|-------------------------|-------------|----------------|-----------------------|
| MOX200 | 500K to 1,500M | 0.25W | 500V | 0.1% to 20% |
| MOX300 | 500K to 2,500M | 0.50W | 1,000V | 0.1% to 20% |

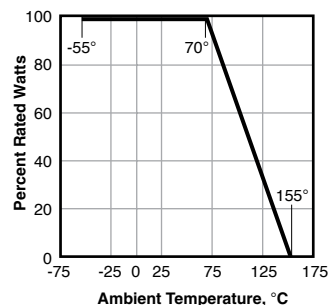
*Some tolerances are not available over the entire resistance range.

CHARACTERISTICS

| | | | |
|-----------------------------------|--|--------------------------------|-------------------------------------|
| Resistor | Metal Oxide | | |
| Coating | Epoxy | | |
| Core | Alumina | | |
| Terminals | Solder-coated axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu | | |
| Resistance Range | 500K to 1,500MΩ | | |
| Power Rating | 0.25W to 0.5W | | |
| Voltage Rating | 500V to 1,000V | | |
| Tolerance | 0.1% to 20% | | |
| | Tolerance | Maximum Value Available | |
| | | MOX200 | MOX300 |
| | 0.10% | 10MΩ | 10MΩ |
| | 0.25% | 10MΩ | 10MΩ |
| | 0.50% | 10MΩ | 10MΩ |
| | 1%-20% | 1500MΩ | 2500MΩ |
| Operating Temperature | -55°C to +155°C | | |
| Max. Overload Voltage | 1,000V (MOX200); 1,500V (MOX300) | | |
| Max. Pulse Voltage | 1,500V (MOX200); 3,000V (MOX300) | | |
| Temp. Coeff. of Resistance | Series | 100 PPM/°C | 200 PPM/°C 300 PPM/°C |
| | MOX200 | 500K-100MΩ | 101M-1000MΩ 1001M-1500MΩ |
| | MOX300 | 500K-100MΩ | 101M-1000MΩ 1001M-2500MΩ |

| Characteristic | Test Method | Specification |
|-------------------------------------|-------------------------------|------------------|
| Short time overload | Rated Power x2.5, 5 sec. | ±0.5% max. |
| Resistance to soldering heat | 260°C ±5°C, 10 ±1 sec. | ±0.5% max. |
| Temperature cycling | -55°C/+155°C, 5 cycles | ±0.5% max. |
| Withstanding voltage | 500 VDC, 60 ±10 sec. | ±0.5% max. |
| Insulation resistance | 500 VDC | 10,000MΩ or more |
| Moisture resistance | 40°C ±2°C, 90-95%RH, 1000 hr. | ±1.5% max. |
| Load life | 70°C ±3°C, 1000 hr. | ±2% max. |

Derating



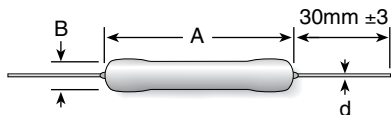
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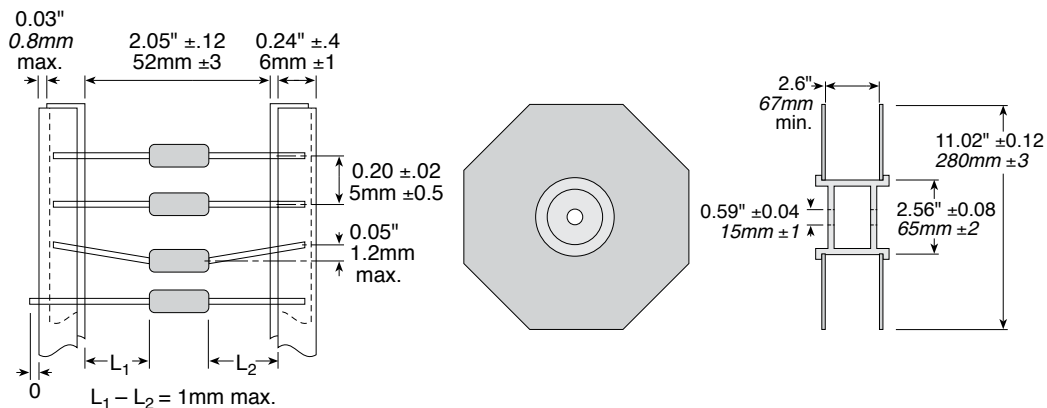
DIMENSIONS

(mm)



| Series | Power Rating | A ±0.5mm (in/mm) | B ±0.5mm (in/mm) | d ±0.05mm (in/mm) |
|--------|--------------|---------------------|---------------------|----------------------|
| MOX200 | 0.25W | 0.26" / 6.5 | 0.09" / 2.2 | 0.024" / 0.6 |
| MOX300 | 0.50W | 0.35" / 9 | 0.13" / 3.3 | 0.025" / 0.65 |

Tape and reel



HOW TO ORDER

| | | | |
|---|--|---|--------------------------------------|
| | | RoHS Compliant | Tape and reel 2500 qty./reel std. |
| MOX200001003FER | | | |
| Mini Mox Series MOX-20000 or MOX-30000 | Ohms First 3 digits are significant; 4th digit is multiplier (# of zeroes to follow). Examples: 10R2 = 10.2 ohms 1000 = 100 ohms 1503 = 150,000 ohms | Tolerance B = 0.10% G = 2% C = 0.25% J = 5% D = 0.5% K = 10% F = 1% M = 15% P = 20% | |