

# 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%

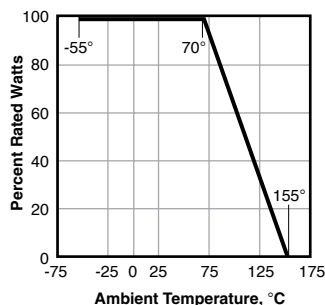
\*Some tolerances are not available over the entire resistance range.

### CHARACTERISTICS

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

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

### Derating



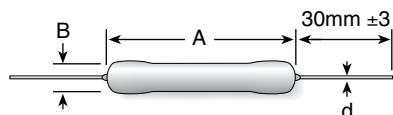
(continued)

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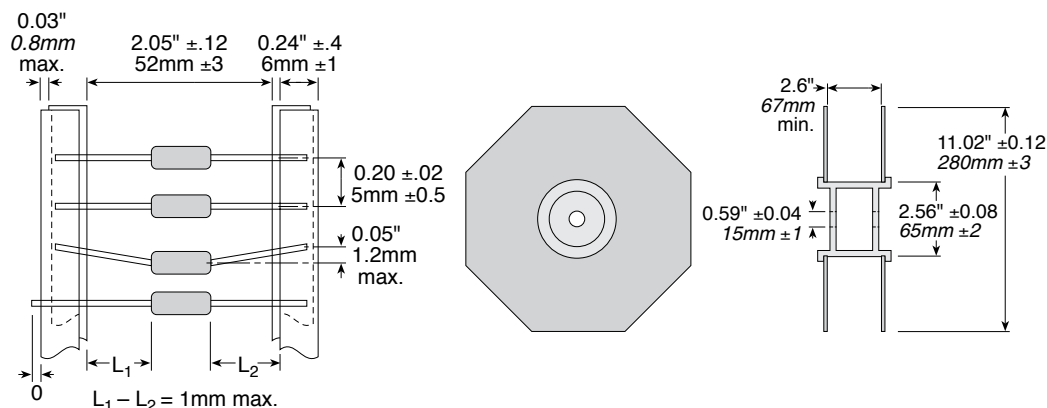
## DIMENSIONS

(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

MOX200001003FER		RoHS Compliant	Tape and reel 2500 qty./reel std.
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% C = 0.25% D = 0.5% F = 1%	G = 2% J = 5% K = 10% M = 15% P = 20%