Mini-Mox

Precision Thick Film Axial Terminal High Voltage/High Resistance

FEATURES

- Wide resistance ranges
- Silicone or 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 0.5%, the Mini-Mox resistor works well in precision circuits.

SERIES SPECIFICATIONS

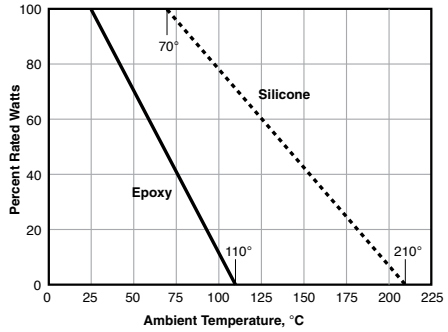
Ohmite Series	Resistance Range (Ohms)	Power	Voltage Rating	Available Tolerances*	Capacitance (pf)
• High-temperature (silicone coated)		**@70°C**			
MOX-400-22	500Ω to 300,000M	0.35W	2,500V	1% to 20%	1.00
MOX-750-22	750Ω to 600,000M	0.70W	5,000V	1% to 20%	0.75
MOX1125-22	1K to 1,000,000M	1.40W	7,500V	1% to 20%	0.25
• Standard (epoxy coated)		**@25°C**			
MOX-400-23	500Ω to 300,000M	0.75W	2,500V	0.5% to 20%	1.00
MOX-750-23	1K to 600,000M	1.00W	5,000V	0.5% to 20%	0.75
MOX1125-23	1K to 1,000,000M	1.50W	7,500V	0.5% to 20%	0.25

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

CHARACTERISTICS

Resistor	Metal Oxide
Coating	Silicone or Epoxy
Core	Alumina
Terminals	Solder-coated axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Resistance Range	500Ω to 1 Teraohm
Power Rating	0.35W to 1.5W
Voltage Rating	2500V to 7.5KV
Tolerance	0.5% to 20%; not all tolerances available in all values
Operating Temperature	-55°C to +220°C
Temp. Coefficient	25ppm/°C 0° to 85°C available

Derating



Performance Data

Characteristic	Test Method	Specification
Humidity	MIL-STD-202, Method 103B, Condition B	±0.25%
Dielectric Withstanding Voltage	MIL-STD-202, Method 301, 750V	±0.25%
Insulation Resistance	MIL-STD-202, Method 302, Condition A or B	>10,000M or greater dry
Thermal Shock	MIL-STD-202, Method 107G, Condition B, B-1, or F	±0.20%
Load Life	MIL-STD-202, Method 108A, Condition D	±2.0%
Resistance to Solvents	MIL-STD-202, Method 215G	Acceptable for the Standard Series Only
Terminal Strength	MIL-STD-202, Method 211A, Condition A or B	±0.25%
Shock (Specified Pulse)	MIL-STD-202, Method 213B, Condition I	±0.25%
Vibration, High Frequency	MIL-STD-202, Method 204D, Condition D	±.020%
Power Conditioning	MIL-R-49462A, Par 4.8	±0.50%
Solderability	MIL-STD-202, Method 208F	>95% Coverage

(continued)

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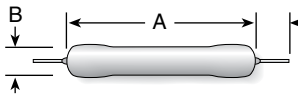
STANDARD TEMP./VOLTAGE COEFFICIENTS OF RESISTANCE

Resistor Series	Temp. Coeff. of Resistance 25 PPM/°C	50 PPM/°C	Voltage Coeff. of Resistance** 100 PPM/°C	< 2PPM/Volt	< 5PPM/Volt
MOX-400	1K-99M	100M-450M	451M-30,000M	1K-1,000M	1,001M-100,000M
MOX-750	1K-199M	200M-900M	901M-70,000M	1K-2,000M	2,001M-100,000M
MOX1125	1K-299M	300M-1,350M	1,351M-100,000M	1K-3,000M	3,001M-100,000M

*TCR of 25ppm for temperature range of 0°C-85°C. TCR of 50ppm and 100ppm for -55°C to 125°C. Consult factory for TCR values operating higher than 125°C
**For tighter VCs please contact Ohmite.

DIMENSIONS

(in./mm)



Series	Power	A max.	B max.
• High-temperature (silicone coated)		@70°C	
MOX-400-22	0.35W	0.510" / 12.95	0.140" / 3.56
MOX-750-22	0.70W	0.820" / 20.83	0.140" / 3.56
MOX1125-22	1.40W	1.210" / 30.73	0.140" / 3.56
• Standard (epoxy coated)		@25°C	
MOX-400-23	0.75W	0.580" / 14.78	0.165" / 4.19
MOX-750-23	1.00W	0.880" / 22.35	0.165" / 4.19
MOX1125-23	1.50W	1.270" / 32.26	0.165" / 4.19

HOW TO ORDER

Style
200, 300, 400, 750, 1125

Coating
2 = Black silicone
3 = Epoxy
6 = No coating

E = RoHS Compliant

M O X 1 1 2 5 2 3 1 0 0 6 F E

Mini Mox Series

Terminal
0 = MOX-200 or 300; MOX-200 Z or 300 Z = 50ppm
2 = 0.020"
7 = 0.032"

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
D = 0.5%
F = 1%
G = 2%
J = 5%
K = 10%
M = 15%
P = 20%

Not all tolerances available in all values.