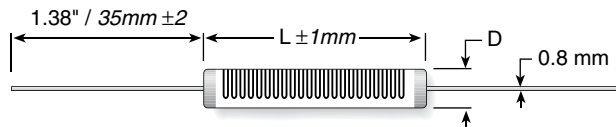


# Super Mox Series

## High Voltage



Uncoated resistor element pictured for demonstration purposes only.  
Finished product is coated with silicone.



| Series | Power Rating (W) | Max. Oper. Voltage | Res. Range (Ω)     | Max. VCR*    | Dimensions (in./mm) |           |
|--------|------------------|--------------------|--------------------|--------------|---------------------|-----------|
|        |                  |                    |                    |              | L                   | D         |
| MOX910 | 3.80             | 15,000             | 1K-500M<br>500M-5G | 0.40<br>0.75 | 1.07/27.00          | 0.32/8.00 |
| MOX920 | 5.00             | 21,000             | 1K-1G<br>1G-10G    | 0.20<br>0.40 | 1.46/37.00          | 0.32/8.00 |
| MOX930 | 7.50             | 30,000             | 1K-1G5<br>1G5-15G  | 0.15<br>0.30 | 2.05/52.00          | 0.32/8.00 |
| MOX940 | 10.00            | 45,000             | 1K-2G5<br>2G5-25G  | 0.10<br>0.15 | 3.03/77.00          | 0.32/8.00 |
| MOX950 | 13.50            | 60,000             | 1K-3G<br>3G-30G    | 0.08<br>0.12 | 4.02/102.00         | 0.33/8.30 |
| MOX960 | 16.00            | 72,000             | 1K-4G<br>4G-40G    | 0.06<br>0.10 | 4.80/122.00         | 0.34/8.50 |
| MOX970 | 20.00            | 90,000             | 1K-5G<br>5G-50G    | 0.04<br>0.08 | 5.98/152.00         | 0.34/8.50 |

\* typical values, contact factory for details

### ORDERING INFORMATION

#### Coating

2 = conformal silicone standard  
3 = conformal silicone high temp. with 350°C burn in

E = RoHS compliant

**MOX91021006JTE**

Super Mox Series  
see chart for wattage

\*Extremely tight  
tolerances not available  
across the full resistance  
range. Consult factory.

Ohms

First 3 digits are  
significant; 4th digit is  
multiplier (# of zeroes  
to follow). Examples:  
1001 = 1000Ω  
1503 = 150,000Ω  
1006 = 100 MΩ

Tolerance\*

A = 0.05%  
B = 0.10%  
C = 0.25%  
D = 0.5%  
F = 1%  
G = 2%  
J = 5%  
K = 10%

TCR

T = 100ppm  
V = 50ppm  
W = 25ppm  
X = 15ppm  
Y = 10ppm

High-voltage Super Mox resistors have been developed to meet the precision temperature stability requirements of high-accuracy and high-voltage systems. Super Mox combines proprietary non-inductive resistance system and design to achieve low temperature coefficient, low voltage coefficients, high stability and increased high operating voltages. These resistors are designed to meet the demanding requirements of high voltage power supplies, electron microscopes, X-ray systems, high resolution CRT displays and geophysical instruments.

### SPECIFICATIONS

**Resistance Range:** from 1KΩ to 50GΩ on all models (contact Ohmite for 51G to 1TΩ)

**Tolerances:** 0.05%, 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10% (0.05% avail. to 10G, 0.25% to 100G, other on request)

**Temperature Coefficients:** 5, 10, 15, 25, 50 and 100ppm/°C (10ppm/°C available to 10G, 25ppm/°C to 100G, other on request)

**Encapsulation:** Silicone  
Conformal Coating

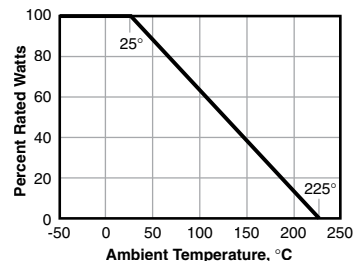
**Terminal Material:** Gold Plated

**Core Material:** Al<sub>2</sub>O<sub>3</sub> (96%)

**Resistor Material:** Ruthenium  
Oxide

**Operating Temperature:** -55°C to 225°C (extended temperature range to 350°C available)

### DERATING



### PERFORMANCE DATA

|                       |                                  |                                                                |
|-----------------------|----------------------------------|----------------------------------------------------------------|
| Insulation Resistance | >10,000 MΩ                       | 500 Volt 25 °C 75% relative humidity                           |
| Dielectric Strength   | >1,000 Volt                      | 25 °C 75% relative humidity                                    |
| Thermal Shock         | Δ R/R < 0.1% typ.,<br>0.20% max. | MIL Std. 202, method 107<br>Cond. C (IEC 68 -2 -14)            |
| Overload              | Δ R/R < 0.1% typ.,<br>0.25% max. | 1,5 x P <sub>nom</sub> , 5 sec<br>(do not exceed max. voltage) |
| Moisture Resistance   | Δ R/R < 0.1% typ.,<br>0.25% max. | MIL Std. 202,<br>method 106 (IEC 68 -2 -3)                     |
| Load Life             | Δ R/R < 0.1% typ.,<br>0.25% max. | 1000 hours at rated power<br>(IEC 115 -1)                      |

### STANDARD PART NUMBERS

| Part Number    | Watts | Ohms<br>1% tol. | TCR    |
|----------------|-------|-----------------|--------|
| MOX91021004FVE | 3.8W  | 1M              | 50ppm  |
| MOX91025004FVE | 3.8W  | 5M              | 50ppm  |
| MOX91021005FVE | 3.8W  | 10M             | 50ppm  |
| MOX91022505FTE | 3.8W  | 25M             | 100ppm |
| MOX92021005FVE | 5W    | 10M             | 50ppm  |
| MOX92025005FVE | 5W    | 50M             | 50ppm  |
| MOX92021006FVE | 5W    | 100M            | 50ppm  |
| MOX92021007FTE | 5W    | 1000M           | 100ppm |
| MOX93021004FVE | 7.5W  | 1M              | 50ppm  |
| MOX93025004FVE | 7.5W  | 5M              | 50ppm  |
| MOX93021005FVE | 7.5W  | 10M             | 50ppm  |
| MOX93022505FTE | 7.5W  | 25M             | 100ppm |
| MOX94021005FVE | 10W   | 10M             | 50ppm  |
| MOX94025005FVE | 10W   | 50M             | 50ppm  |
| MOX94021006FVE | 10W   | 100M            | 50ppm  |
| MOX94021007FTE | 10W   | 1000M           | 100ppm |
| MOX95021004FVE | 13.5W | 1M              | 50ppm  |
| MOX95025004FVE | 13.5W | 5M              | 50ppm  |
| MOX95021005FVE | 13.5W | 10M             | 50ppm  |
| MOX95022505FTE | 13.5W | 25M             | 100ppm |
| MOX96021005FVE | 16W   | 10M             | 50ppm  |
| MOX96025005FVE | 16W   | 50M             | 50ppm  |
| MOX96021006FVE | 16W   | 100M            | 50ppm  |
| MOX96021007FTE | 16W   | 1000M           | 100ppm |
| MOX97021004FVE | 20W   | 1M              | 50ppm  |
| MOX97025004FVE | 20W   | 5M              | 50ppm  |
| MOX97021005FVE | 20W   | 10M             | 50ppm  |
| MOX97022505FTE | 20W   | 25M             | 100ppm |

Check product availability at [www.ohmite.com](http://www.ohmite.com)