Super Mox Series

High Voltage

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.

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

SERIES SPECIFICATIONS

Series	Power Rating (W)	Max. Oper. Voltage	Res. Range (Ω)	VCR*
MOX910	3.80	15,000	1K-500M	0.40
			500M-5G	0.75
MOX920	5.00	21,000	1K-1G	0.20
			1G-10G	0.40
MOX930	7.50	30,000	1K-1G5	0.15
			1G5-15G	0.30
MOX940	10.00	45,000	1K-2G5	0.10
			2G5-25G	0.15
MOX950	13.50	60,000	1K-3G	0.08
			3G-30G	0.12
MOX960	16.00	72,000	1K-4G	0.06
			4G-40G	0.10
MOX970	20.00	90,000	1K-5G	0.04
			5G-50G	0.08

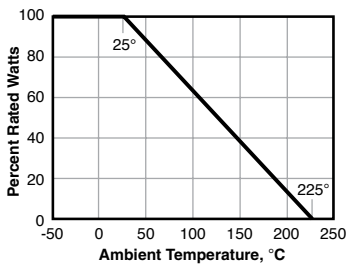
* typical values, contact factory for details

CHARACTERISTICS

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. Temperature coefficient referenced to 25°C, ΔR taken at +125°C.
Encapsulation	Silicone Conformal Coating
Terminal Material	Gold Plated
Core Material	Al_2O_3 (96%)
Resistor Material	Ruthenium Oxide
Operating Temperature	-55°C to 225°C (extended temperature range to 350°C available)

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., 0.20% max.	MIL Std. 202, method 107 Cond. C (IEC 68 -2 -14)
Overload	Δ R/R < 0.1% typ., 0.25% max.	1,5 x Pnom, 5 sec (do not exceed max. voltage)
Moisture Resistance	Δ R/R < 0.1% typ., 0.25% max.	MIL Std. 202, method 106 (IEC 68 -2 -3)
Load Life	Δ R/R < 0.1% typ., 0.25% max.	1000 hours at rated power (IEC 115 -1)

Derating



(continued)

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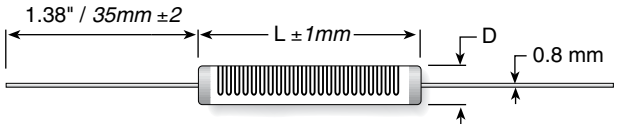
DIMENSIONS

(iin./mm)



Series	L	D
MOX910	1.07/ 27.00	0.32/8.00
MOX920	1.46/ 37.00	0.32/8.00
MOX930	2.05/ 52.00	0.32/8.00
MOX940	3.03/ 77.00	0.32/8.00
MOX950	4.02/102.00	0.33/8.30
MOX960	4.80/122.00	0.34/8.50
MOX970	5.98/152.00	0.34/8.50

ORDERING INFORMATION

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

E = RoHS compliant

M O X 9 1 0 2 1 0 0 6 J T E

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

Part Number	Watts	Ohms 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