Mox 600 Series

Thick Film Axial High Voltage

RoHS Compliant

FEATURES

- Wide resistance range up to 1000M
- Max pulse voltage of 30KV
- Silicone coating

APPLICATIONS

- HV power supplies
- High voltage switching
- Industrial control

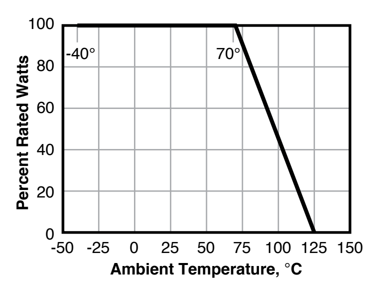
SERIES SPECIFICATIONS

Series	Rated Power	TCR	Tolerance	Resistance Range	Max. Operating Voltage	Max. Overload Voltage	Max. Pulse Voltage
MOX610	1W	±300ppm/°C	0.50%	150K to 10M	2,000	3,000	5,000
			1%	150K to 100M			
			2%, 5%	150K to 1,000M			
		±100ppm/°C	1%, 2%, 5%	600K to 10M			
		±50ppm/°C	0.5%, 1%, 2%, 5%	10M to 20M			
		±300ppm/°C	1%	21M to 100M			
MOX620	2W	±100ppm/°C	1%, 2%, 5%	1M to 100M	3,000	5,000	10,000
		±300ppm/°C		101M to 1,000M			
MOX630	3W	±100ppm/°C		1M to 100M	5,000	7,500	15,000
		±300ppm/°C		101M to 1,000M			
MOX650	5W	±100ppm/°C		1M to 100M	10,000	15,000	30, 000
		±300ppm/°C		101M to 1,000M			

CHARACTERISTICS

Max. Overload Voltage	3,000V (1W); 5,000V (2W)
Max. Pulse Voltage	5,000V (1W); 10,000V (3W)
Operating Temperature	-40°C to +125°C

Derating



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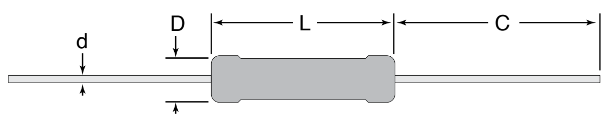
PERFORMANCE

Characteristic	Test Method	Specification
S.T.O.L.	After applying the lower of 2.5 times of rated voltage or maximum overload voltage (table 6) for 5 seconds, leave it at room temperature for 30 minutes and measure. The amount of change of resistance value (ΔR) is calculated from measured values before and after testing.	≤±0.5%+0.05Ω
Resistance to soldering heat	Dip up to 4±0.8mm from the body in solder of 350±10°C for 3.5±0.5 seconds. After leaving it at room temperature for more than 3 hours, resistance value is measured. The amount of change of resistance value (ΔR) is calculated from measured values before and after testing.	≤±0.2%+0.05Ω
Temperature cycling	Regard the following 4 steps as 1 cycle, and run 5 cycles. The amount of change of resistance value (ΔR) is calculated from measured values before and after testing. 1 -40±3°C 30 +3/0 min. 2 Room temp. 10 +3/0 min. 3 125±3°C 30 +3/0 min. 4 Room temp. 10 +3/0 min.	≤±2.0%+0.05Ω
Insulation resistance	To be measured at the voltage stipulated in the table 6 by V block method.	min. 1000MΩ
Moisture resistance	In the atmosphere of temperature 40±2°C and relative humidity 90 ~95%, apply DC voltage at the lower value of rated voltage or maximum working voltage for 1.5 hours and repeat cycle of less than half an hour for 1,000 hours. Next, resistance value is measured after leaving the object at room temperature for about an hour. The amount of change of resistance value (ΔR) is calculated from measured values before and after testing.	≤±1.5%+0.05Ω
Load life	In the atmosphere of temperature 70±2°C, apply DC voltage at the lower value of rated voltage or maximum working voltage for 1.5 hours and repeat cycle of less than half an hour for 1,000 hours. Next, resistance value is measured after leaving the object at room temperature for about an hour. The amount of change of resistance value (ΔR) is calculated from measured values before and after testing.	≤±1.5%+0.05Ω

DIMENSIONS

(mm)



Series	L	D	C	d
MOX610	15.0 ±0.5	5.3 ±0.5	38 ±3	0.8 ±0.05
MOX620	18.0 ±0.5	8.4 ±0.6	38 ±3	0.8 ±0.05
MOX630	52.0 ±1.5	8.0 ±1.0	38 ±3	0.8 ±0.05
MOX650	69.0 ±1.5	10.0 ±1.0	38 ±3	0.8 ±0.05

ORDERING INFORMATION

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

- **Mox600 Series**: MOX6
- **Power** (watts): 1
- **Coating**: 2 = conformal silicone standard
- **Ohms**: First 3 digits are significant; 4th digit is multiplier (# of zeroes to follow). Examples: 1001 = 1000Ω; 1503 = 150,000Ω; 1006 = 100 MΩ
- **Tolerance**: B = 0.10%; C = 0.25%; D = 0.5%; F = 1%
- **TCR**: T = 100ppm; V = 50ppm; W = 25ppm; X = 15ppm; Y = 10ppm; Z = 5ppm
- **E = RoHS compliant**

Standard Part Numbers

Part No.	Resistance	Tolerance	Watts
MOX61022505FE	25MΩ	1%	1
MOX61025005FE	50MΩ	1%	1
MOX61027505FE	75MΩ	1%	1
MOX61021006FE	100MΩ	1%	1
MOX61022506GE	250MΩ	2%	1
MOX61025006GE	500MΩ	2%	1
MOX61027506GE	750MΩ	2%	1
MOX61021007GE	1,000MΩ	2%	1
MOX62022505FE	25MΩ	1%	2
MOX62025005FE	50MΩ	1%	2
MOX62027505FE	75MΩ	1%	2
MOX62021006FE	100MΩ	1%	2
MOX62022506FE	250MΩ	1%	2
MOX62025006FE	500MΩ	1%	2
MOX62027506FE	750MΩ	1%	2
MOX62021007FE	1,000MΩ	1%	2

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