

# MOX500 Series

## Epoxy Molded, Metal Glaze-Metal Oxide Resistors



### FEATURES

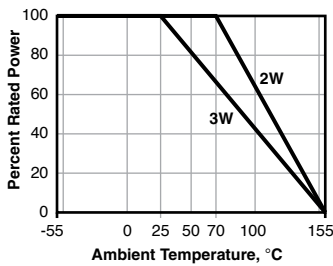
- Meets Mil-Std-202
- Meets IEC 61000-4-5 up to 2KV
- Molded Construction
- Available in E96 values

### CHARACTERISTICS

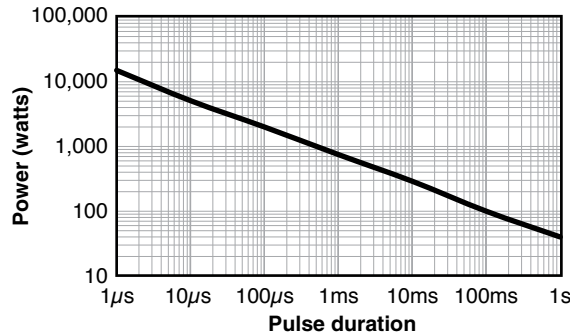
|                                  |   |
|----------------------------------|---|
| <b>Resistor Type</b>             | Thick Film, Epoxy Molded  |
| <b>Power Rating</b>              | 2W at 70°C<br>3W at 25°C  |
| <b>Resistance Range</b>          | Metal Glaze: 1.5KΩ to 5MΩ<br>Metal Oxide: 15Ω to <1.5KΩ   |
| <b>Tolerance</b>                 | 1%, 2%, 5%  |
| <b>Temp. Coeff. Resistance</b>   | Metal Glaze: 100/200ppm<br>Metal Oxide: 350ppm<br>Not all tolerances and TCR values available throughout entire resistance range          |
| <b>Construction</b>              | Metal glaze 100/200 ppm<br>Metal oxide 350 ppm  |
| <b>Max. Working Voltage</b>      | RCWV or 1000 V whichever lesser. (RCWV = rated DC or RMS AC continuous working voltage at commercial line frequency and waveform (volt) ) |
| <b>Diel. With-standing Volt.</b> | 1000 VRMS   |
| <b>Terminals</b>                 | Copper Wire, Solder Coated axial, RoHS composition  |
| <b>Oper. Temp.</b>               | -55° to +155°C  |

| Characteristic                      | Test Method   | ΔR limits |
|-------------------------------------|---|-----------|
| <b>Moisture Resistance</b>          | MIL-STD-202, Method 106G  | ±0.20%    |
| <b>Humidity</b>                     | MIL-STD-202, Method 103, Condition B  | ±0.25%    |
| <b>Shock</b>                        | MIL-STD-202, Method 213, Condition I  | ±0.10%    |
| <b>Vibration</b>                    | MIL-STD-202, Method 204, Condition D  | ±0.10%    |
| <b>Terminal Strength</b>            | MIL-STD-202, Method 211A, Condition A or B  | ±0.10%    |
| <b>Short Term Overload</b>          | DC test potential 2.5 time the rated continuous working voltage but not exceeding twice the maximum voltage specified | ±0.5%     |
| <b>Load Life</b>                    | 1000 hrs at RCWV duty cycle 1.5hr ON, 0.5 hr OFF at 70°C ±2°C   | ±2%       |
| <b>Temperature Cycling</b>          | -65° to +125°C  | ±0.10%    |
| <b>Resistance to soldering heat</b> | Temp 350°C ±10°C for 3 ±0.5 sec   | ±1%       |
| <b>Surge Immunity</b>               | IEC61000-4-5, waveform 1.2/50μS, 10 Pulses applied. Does not include values under 1KΩ.                                | <±1%      |

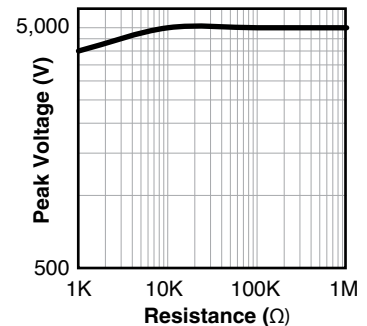
### Derating



### Single Impulse Test



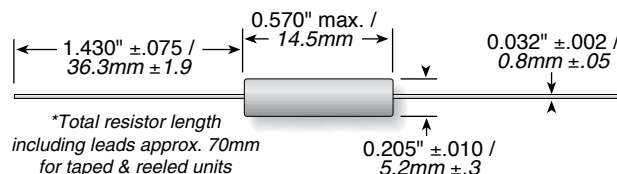
### Surge Immunity Test



Resistors are tested in accordance with IEC61000-4-5, waveform 1.2/50μS, 10 Pulses applied. Limit of acceptance is a shift in resistance of less than 1% from the initial value. Graph data shows values equal or greater than 1KΩ.

### DIMENSIONS

in./mm



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### TAPE & REEL

EIA-296 standard



### ORDERING INFORMATION



### Standard part numbers for MOX500 Series

| Resistance | 2% tolerance  | 5% tolerance  |
|------------|---------------|---------------|
| 100        |               | MOX500100RJSE |
| 150        |               | MOX500150RJSE |
| 270        |               | MOX500270RJSE |
| 1K         |               | MOX5001001JSE |
| 1.5K       |               | MOX5001501JSE |
| 2.7K       | MOX5002701GSE |               |
| 3.3K       |               | MOX5003301JSE |
| 4.3K       |               | MOX5004301JSE |
| 6.8K       |               | MOX5006801JSE |
| 7.5K       | MOX5007501GSE |               |
| 10K        |               | MOX5001002JSE |
| 15K        |               | MOX5001502JSE |
| 18K        |               | MOX5001802JSE |
| 20K        | MOX5002002GSE |               |
| 27K        | MOX5002702GSE |               |
| 33K        |               | MOX5003302JSE |
| 47K        | MOX5004702GSE |               |
| 66K        |               | MOX5006602JSE |
| 100K       | MOX5001003GSE |               |
| 150K       | MOX5001503GSE |               |
| 220K       | MOX5002203GSE |               |
| 270K       | MOX5002703GSE |               |
| 330K       | MOX5003303GSE |               |
| 1M         | MOX5001004GSE |               |