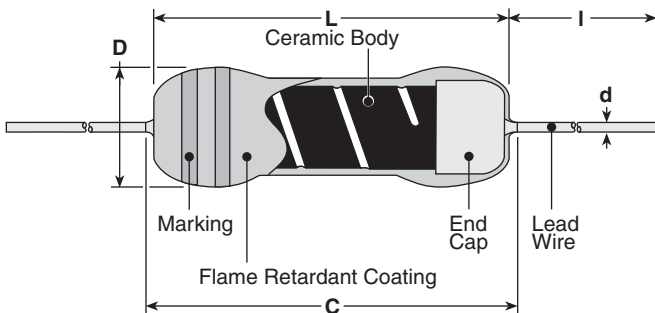


features

- Flameproof silicone coating equivalent to (UL94V0)
- Suitable for automatic machine insertion
- High reliability for performance
- Marking: Blue-gray body color with color-coded bands
- Products with lead-free terminations meet EU RoHS and China RoHS requirements

dimensions and construction



| Type | Dimensions inches (mm) | | | | |
|-----------------|-------------------------|----------------|------------------------|---------------|--------------------------|
| | L | C (max.) | D | d (nom.) | I* |
| MO1/2 MOX1/2 | .354±.039 (9.0±1.0) | .437 (11.1) | .126±.02 (3.2±0.5) | .028 (0.7) | .945 Min. (24.0 Min.) |
| MO1 MOX1 | .472±.039 (12.0±1.0) | .59 (15.0) | .157±.02 (4.0±0.5) | .031 (0.8) | |
| MO2 MOX2 | .610±.039 (15.5±1.0) | .709 (18.0) | .236±.039 (6.0±1.0) | | |
| MO3 MOX3 | .965±.039 (24.5±1.0) | 1.10 (28.0) | .354±.039 (9.0±1.0) | | 1.18±.118 (30.0±3.0) |
| | | | | | 1.50±.118 (38.0±3.0) |

* Lead length changes depending on taping and forming type.

ordering information

| | | | | | | | |
|------------|-----------|--------------------------------------|----------------------|---|--------------------|---|------------------|
| New Part # | MO | 1 | C | T52 | A | 473 | J |
| | Type | Power Rating | Termination Material | Taping and Forming | Packaging | Nominal Resistance | Tolerance |
| | MO MOX | 1/2: 0.5W 1: 1W 2: 2W 3: 3W | C: SnCu | Axial: T52, T521, T631 Stand-off Axial: L52, L521, L631, L, U, M Forming (MO3/MOX3 bulk packaging only) | A: Ammo R: Reel | 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω | G: ±2% J: ±5% |

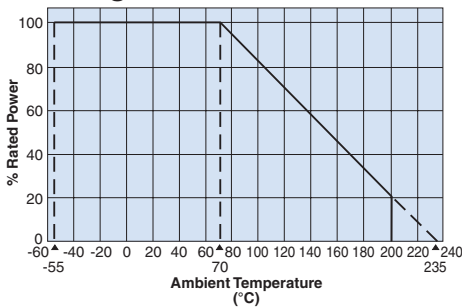
For further information on packaging, please refer to Appendix C.

applications and ratings

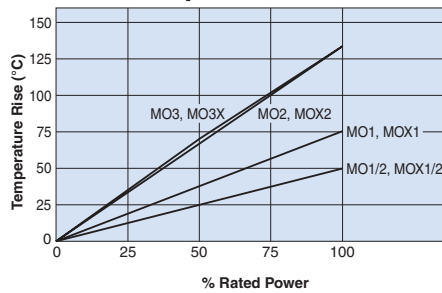
| Part Designation | Power Rating @ 70°C | Minimum Dielectric Withstanding Voltage | T.C.R. (ppm/°C) Max. | Resistance Range E-24 (G±2%) | Resistance Range E-24 (J±5%) | Absolute Maximum Working Voltage | Absolute Maximum Overload Voltage | Operating Temperature Range |
|------------------|---------------------|---|----------------------|------------------------------|------------------------------|----------------------------------|-----------------------------------|-----------------------------|
| MO1/2 | 0.5W | 400V | ±200 | 10Ω - 47kΩ | 10Ω - 47kΩ | 250V | 400V | -55°C to +200°C |
| MO1 | 1.0W | 500V | | 10Ω - 100kΩ | 10Ω - 120kΩ | 350V | 600V | |
| MO2 | 2.0W | | | | | 500V | 800V | |
| MO3 | 3.0W | 500V | | 5.1Ω - 9.1Ω | 0.2Ω - 9.1Ω | $E = \sqrt{P \times R}$ | E x 2.5 | |
| MOX1/2 | 0.5W | | | | | | | |
| MOX1 | 1.0W | | | | | | | |
| MOX2 | 2.0W | | | | | | | |
| MOX3 | 3.0W | | | | | | | |

environmental applications

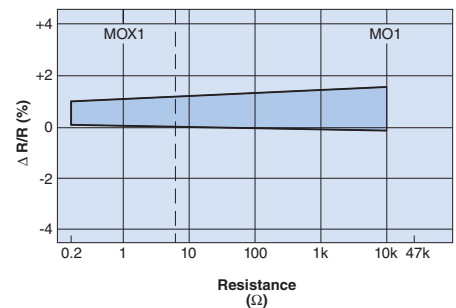
Derating Curve



Surface Temperature Rise



Load Life @ 70°C, 1000 Hr



Performance Characteristics

| Parameter | Requirement Δ R ±(% + 0.05Ω) | | Test Method |
|-----------------------------|---|---------|---|
| | Limit | Typical | |
| Resistance | Within specified tolerance | — | Measuring points are at 10mm ±1mm from the end cap. |
| T.C.R. | Within specified T.C.R. | — | Room temperature +100°C |
| Overload (Short time) | ±1% | ±0.5% | Rated voltage x 2.5 or max. overload voltage for 5 seconds, whichever is lower |
| Resistance to Solder Heat | ±1% | ±0.5% | 260°C ±5°C, 10 seconds ± 1 second |
| Terminal Strength | No lead-coming off and loose terminals | — | Twist 360°C, 5 times |
| Rapid Change of Temperature | ±1% | ±0.5% | -55°C (30 minutes), +155°C (30 minutes), 5 cycles |
| Moisture Resistance | ±(5%+0.1Ω) | ±2% | 40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle |
| Endurance at 70°C | ±(5%+0.1Ω) | ±2% | 70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle |
| Resistance to Solvent | No abnormality in appearance. Marking shall be easily legible | — | Ultrasonic washing with isopropyl alcohol for 2 minutes. Power: 0.3W/cm³, f: 28kHz, Temp: 35°C ±5°C |
| Flame Retardant | No evidence of flaming or self-flaming | — | Flame test: the test flame shall be applied and removed for each 15 seconds respectively to repeat the cycle 5 times. Overload flame retardant: power (AC) corresponding to 2, 4, 8, 16 and 32 times the power rating shall be applied for each 1 minute until disconnection occurs. However the applied voltage shall not exceed the value of 4 times of the maximum operating voltage |