

Ultra-Mox Series

High Voltage, Thick Film



FEATURES

- High voltage resistors in thick film technology
- Radial leads, variable lead spacing by bending
- Climatic protection by silicone coating
- Special versions possible
- Resistance values up to 10 teraohm
- Low values of TCR and VCR

SERIES SPECIFICATIONS

| Series | Power Rating | Working Voltage | Resistance Range | Tolerance | TCR | VCR |
|--------|--------------|-----------------|------------------|-----------|--------------|----------|
| UM025 | 1.0 | 15KV | 1M-100M | 0.25-10% | 25, 50, 100 | 1ppm/V |
| | | | >100M-1G | 1-20% | 50, 100, 250 | 2ppm/V |
| | | | >1G-100G | 5-30% | 250, 500 | 10ppm/V |
| | | | >100G-1T | 5-30% | 500, 1000 | 50ppm/V |
| UM030 | 1.0 | 10KV | 1M-100M | 0.25-10% | 25, 50, 100 | 2ppm/V |
| | | | >100M-1G | 1-20% | 50, 100, 250 | 5ppm/V |
| | | | >1G-100G | 5-30% | 250, 500 | 20ppm/V |
| | | | >100G-1T | 5-30% | 500, 1000 | 100ppm/V |
| UM040 | 1.2 | 20KV | 1M-100M | 0.25-10% | 25, 50, 100 | 1ppm/V |
| | | | >100M-1G | 1-20% | 50, 100, 250 | 2ppm/V |
| | | | >1G-100G | 5-30% | 250, 500 | 10ppm/V |
| | | | >100G-1T | 5-30% | 500, 1000 | 50ppm/V |
| UM050 | 3.0 | 30KV | 1M-100M | 0.25-10% | 25, 50, 100 | 1ppm/V |
| | | | >100M-1G | 1-20% | 25, 50, 100 | 1ppm/V |
| | | | >1G-100G | 5-30% | 100, 250 | 5ppm/V |
| | | | >100G-1T | 5-30% | 250, 500 | 25ppm/V |
| | | | >1T-10T | 10-30% | on request | |

Closer tolerance, TCR and VCR, other dimensions, and voltage dividers, on request.

CHARACTERISTICS

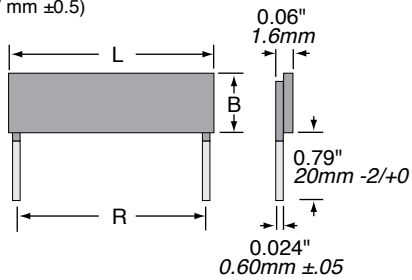
| | |
|-------------------------------------|--|
| Continuous operating voltage | $V = \sqrt{P \cdot R}$ |
| Measuring voltage | Standard measuring voltage is 10V (50V for values >1G). Different voltages on request. |
| TCR | in ppm/K; Temperature range +25°C ... +125°C; TCR25/50 and values above 1G: +25°C ... +85°C |
| Operating temp. range | -55°C ... +125°C |
| Climatic category | to EN 60068-1: 55/125/56 |
| Humidity-/contact protection | Lacquer coating. Resistant to most solvents. Isopropyl alcohol recommended for cleaning; do not use acetone or methylene chlorolide. Avoid mechanical stress to coating. |
| Stability: Storage | (125°C/1000h) ≤10G: <1%; >10G: <2% |
| Stability at Max. voltage | (Max. voltage/1000h) ≤10G: <1%; >10G: <2% |

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DIMENSIONS

(in. / mm ± 0.5)



| Series | L | B | R |
|--------|------------|------------|------------|
| UM025 | 0.98"/25.0 | 0.35"/9.0 | 0.90"/22.9 |
| UM030 | 1.18"/30.0 | 0.24"/6.0 | 1.09"/27.7 |
| UM040 | 1.57"/40.0 | 0.24"/6.0 | 1.49"/37.8 |
| UM050 | 1.97"/50.0 | 0.49"/12.5 | 1.88"/47.8 |

Lead spacing may be changed by bending

Other wire diameters and thicknesses available

Axial versions, versions with formed leads and versions with lead frames are available

ORDERING INFORMATION

RoHS Compliant

| Ultra-mox High voltage radial lead | Style | TCR (ppm) | Ohms | Tolerance |
|--|-------|--------------|------|-----------|
| U | M | 0 | 5 | T |
| | | | 1 | 0 |
| | | | 0 | 0 |
| | | | 4 | J |
| | | | | E |

W = 25
 V = 50
 T = 100
 Z = 250
 E = 500
 N = 1000
 U = 2000

1004 = 1MΩ
 1006 = 100M
 1009 = 100G
 100A = 1T
 100B = 10T

D = 0.50%
 F = 1%
 G = 2%
 J = 5%
 K = 10%
 M = 20%
 P = 30%

Standard Part Numbers

| | |
|--------------|--------------|
| UM030T1006FE | UM040Z1009JE |
| UM030Z1007FE | UM040E100AJE |
| UM030Z1008JE | UM050V1006FE |
| UM030Z1009JE | UM050V1007FE |
| UM030E100AJE | UM050T1008JE |
| UM040T1006FE | UM050T1009JE |
| UM040Z1007FE | UM050Z100AJE |
| UM040Z1008JE | UM050E100BKE |

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