

FEATURES

- Cylindrical leadless type for surface mounting.
- Non-polar, general purpose, 1000 hours at 85°C.
- Maximum 5.5mm height & anti-solvent (2 minutes).
- Designed for automatic mounting and reflow soldering.

PART NUMBERING

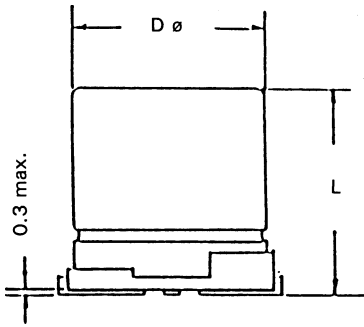
| Part Number Example: MXNP-016/100M5X5TR13F | | | | | | | | | |
|---|---|------------------|---|------------------------|----------------|------|----------------|-----------|----------------|
| MXNP | - | 016 | / | 100 | M | 5X5 | TR | 13 | F |
| Type | | Rated DC Voltage | | Capacitance Code (μF)* | Tolerance Code | Size | Package Code** | Reel Size | RoHs Compliant |
| * Capacitance Code: First two digits represent significant figure, third digit represents multiplier (number of zeros). | | | | | | | | | |
| ** Package Code: TR = Tape & Reel. | | | | | | | | | |

SPECIFICATIONS

| Performance Characteristics | | | | | | | |
|--|---------------------------------------|--|----|----|----|----|----|
| Operating Temperature Range | -40°C ~ +85°C. | | | | | | |
| Temperature Characteristics (120Hz) | Impedance Ratio | | | | | | |
| | Rated Voltage (WVDC) | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | Z (-25°C) / Z (+20°C) | 4 | 3 | 2 | 2 | 2 | 2 |
| | Z (-40°C) / Z (+20°C) | 8 | 6 | 4 | 4 | 3 | 3 |
| Voltage Range | 6.3VDC ~ 50VDC (nonpolar). | | | | | | |
| Capacitance Range | 0.1μF ~ 47μF. | | | | | | |
| Capacitance Tolerance | ±20% (m). | | | | | | |
| Maximum Dissipation Factor (20°C, 120Hz) | Rated Voltage (WVDC) | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | DF % | 24 | 20 | 17 | 17 | 15 | 15 |
| Maximum Leakage Current (20°C) (after 2 minutes) | 0.05CV or 10μA, whichever is greater. | | | | | | |
| Load Life Test (85°C, 1000 hours) (reverse polarity every 250 hours) | Capacitance Change | Within ±25% of initial measured value. | | | | | |
| | DF | Less than 200% of specific value. | | | | | |
| | Leakage Current | Less than specified value. | | | | | |

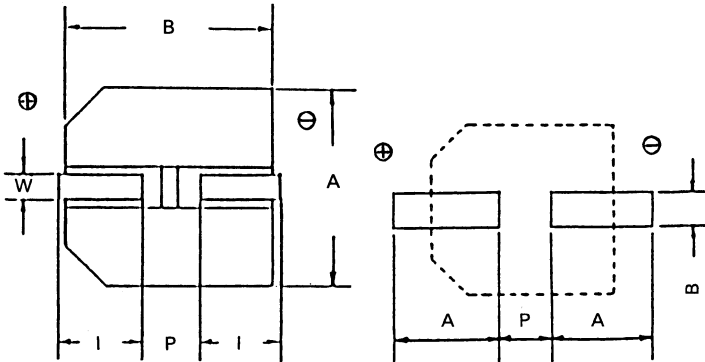
STANDARD PRODUCT TABLE (dØ X L(mm))

| Capacitance (μF) | WVDC | | | | | |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 6.3 | 10 | 16 | 25 | 35 | 50 |
| 0.10 | | | | | | 4 x 5.5 |
| 0.22 | | | | | | 4 x 5.5 |
| 0.33 | | | | | | 4 x 5.5 |
| 0.47 | | | | | | 4 x 5.5 |
| 1.0 | | | | | | 4 x 5.5 |
| 2.2 | | | | | 4 x 5.5 | 5 x 5.5 |
| 3.3 | | | | 5 x 5.5 | 5 x 5.5 | 5 x 5.5 |
| 4.7 | | | 4 x 5.5 | 5 x 5.5 | 5 x 5.5 | 6.3 x 5.5 |
| 10 | | 4 x 5.5 | 5 x 5.5 | 6.3 x 5.5 | 6.3 x 5.5 | 6.3 x 5.5 |
| 22 | 5 x 5.5 | 6.3 x 5.5 | 6.3 x 5.5 | | | |
| 33 | 6.3 x 5.5 | 6.3 x 5.5 | 6.3 x 5.5 | | | |
| 47 | 6.3 x 5.5 | | | | | |



DIMENSIONS (mm)

| Case Size | dØ ± 0.5 | L Max. | A ± 0.2 | B ± 0.2 | l ± 0.2 | W | P ± 0.2 |
|-----------|----------|--------|---------|---------|---------|-----------|---------|
| 4 x 5.5 | 4 | 5.5 | 4.3 | 4.3 | 1.8 | 0.5 ~ 0.8 | 1 |
| 5 x 5.5 | 5 | 5.5 | 5.3 | 5.3 | 2.1 | 0.5 ~ 0.8 | 1.4 |
| 6.3 x 5.5 | 6.3 | 5.5 | 6.6 | 6.6 | 2.5 | 0.5 ~ 0.8 | 2.2 |



RECOMMENDED LAND PATTERN

| Case Size | A | B | P |
|-----------|-----|-----|-----|
| 4 x 5.5 | 2.5 | 1.6 | 1.0 |
| 5 x 5.5 | 2.7 | 1.6 | 1.4 |
| 6.3 x 5.5 | 3.1 | 1.6 | 2.2 |

MAXIMUM RIPPLE (mA rms @ 120Hz & 105°C)

| Capacitance (µF) | WVDC | | | | | |
|------------------|------|----|----|----|-----|-----|
| | 6.3 | 10 | 16 | 25 | 35 | 50 |
| 0.10 | | | | | | 1.0 |
| 0.22 | | | | | | 2.0 |
| 0.33 | | | | | | 2.8 |
| 0.47 | | | | | | 4.0 |
| 1.0 | | | | | | 8.4 |
| 2.2 | | | | | 8.4 | 13 |
| 3.3 | | | | 12 | 16 | 17 |
| 4.7 | | | 12 | 16 | 18 | 20 |
| 10 | | 17 | 23 | 27 | 29 | 23 |
| 22 | 28 | 33 | 37 | | | |
| 33 | 37 | 41 | 49 | | | |
| 47 | 45 | | | | | |