4.5mmL Chip Type, Wide Temperature Range

- For SMD









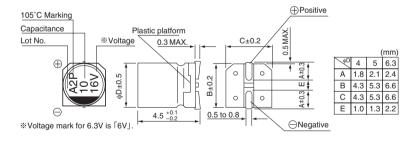
• Chip type with 4.5mm height, operating over wide temperature range of -40 to +105°C. • Designed for surface mounting on high density PC board.

- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

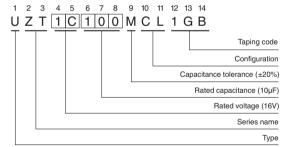
■ Specifications

| Opecifications | | | | | | | | _ | | | | | |
|-------------------------------|---|-------------|-------------|-------|-----|---|----------------------------------|---|--------|--|---|--|--|
| Item | Performance Characteristics | | | | | | | | | | | | |
| Category Temperature Range | -40 to +105°C | | | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 50V | | | | | | | | | | | | |
| Rated Capacitance Range | 1 to 100μF | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20° | С | | | | | | | | | | | |
| Leakage Current | After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is g | | | | | | or 3 (µA), whichever is greater. | | | | | | |
| | Measurement frequency: 120Hz at 20°C | | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | Rated voltage (V) | 6.3 | 10 | 0 | | 16 25 | | 3 | 35 | | | | |
| 5 6 7 | tan δ (MAX.) | 0.38 | 0.32 | | 0.2 | 20 | 0.16 | 6 0. | 14 | 0.14 | | | |
| | Measurement frequency : 120Hz | | | | | | | | | | | | |
| Ctability at Law Tarransust | Rated voltage (V) | | 6.3 | | 10 | 16 | 25 | 35 | 50 | | | | |
| Stability at Low Temperature | Impedance ratio | Z-25°C / 2 | Z+20°C | 6 | | 5 | 3 | 3 | 3 | 3 | | | |
| | ZT / Z20 (MAX.) | Z-40°C / Z | Z+20°C | 10 | | 10 | 6 | 6 | 4 | 4 | | | |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for | | | | | apacitano ange | е | Within ±25% of the initial capacitance value (16V or less) Within ±20% of the initial capacitance value (25V or more) | | | | | |
| | | | | | | ange 1 δ | | 300% or less than initial specified value | | | | | |
| | 1000 hours at 105°C | | applied 10 | ' | | | urrent | | | an initial specified value al to the initial specified value | | | |
| Shelf Life | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above. | | | | | | | | | | | | |
| | The appositors are least an a bat plate for 20 accorde which | | | | | | | | | | | | |
| Resistance to soldering | is maintained at 250° | eet the | | | | Within ±10% of the initial capacitance value Less than or equal to the initial specified value | | | | | | | |
| heat | characteristic require | | | | | | - | | | in or equal to the initial specified value | | | |
| | removed from the pla | ate and res | stored to 2 | 20°C. | | | L | <u></u> сеакаде с | urrent | Less mai | in or equal to the milial specified value | | |
| Marking | Black print on the cas | se top. | | | | | | | | | | | |
| | | | | | | | | | | | | | |

■Chip Type



Type numbering system (Example: 16V 10µF)



Dimensions

| | V | 6. | .3 | 10 | | 16 | | 25 | | 35 | | 50 | |
|-----------|------|-----|----|-----|--------|-----|------|-----|--------|-----|----|----------------------|--------------|
| Cap. (µF) | Code | 0 | J | 1A | | 1C | | 1E | | 1V | | 1H | |
| 1 | 010 | | | | | | | | | | ! | 4 | 5.4 |
| 2.2 | 2R2 | | | | | | | | 1 | | | 4 | 9.6 |
| 3.3 | 3R3 | | | | i I | | i | | i i | | i | 4 | 12 |
| 4.7 | 4R7 | | | | l I | | ! | 4 | 11 | 4 | 13 | 5 | 16 |
| 10 | 100 | | | | | 4 | 16 | 5 | 20 | 5 | 22 | 6.3 | 26 |
| 22 | 220 | 4 | 19 | 5 | 24 | 5 | 26 | 6.3 | 33 | 6.3 | 36 | | |
| 33 | 330 | 5 | 26 | 5 | ¦ 30 | 6.3 | ¦ 35 | 6.3 | 42 | | | | |
| 47 | 470 | 5 | 32 | 6.3 | 40 | 6.3 | 44 | | | | | | |
| 100 | 101 | 6.3 | 52 | | i I | | İ | | i I | | 1 | Case size φD (mm) | Rated ripple |

Rated ripple current (mArms) at 105°C 120Hz

Frequency coefficient of rated ripple current

| . , | | | | | |
|-------------|-------|--------|--------|-------|----------------|
| Frequency | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz or more |
| Coefficient | 0.70 | 1.00 | 1.17 | 1.36 | 1.50 |

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UUX(p.170), UUJ(p.176) series if high C/ V products are regired.
- Please refer to page 3 for the minimum order quantity.