

Features

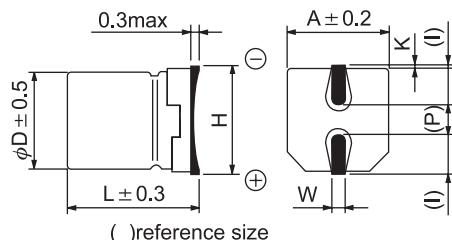
- Load Life : 105°C 1000~2000 hours.
- For high density mounting.
- Low impedance at 100kHz.
- Corresponding product to RoHS

**SPECIFICATION**

| Item | Characteristic | | | | | | | | | | | | | |
|--|---|-----------|-----------------------------------|------|------|------|------------------------------|------|--|--|--|--|--|--|
| Operation Temperature Range | -55 ~ +105°C | | | | | | | | | | | | | |
| Rated Working Voltage | 6.3 ~ 50VDC | | | | | | | | | | | | | |
| Capacitance Tolerance (120Hz 20°C) | ±20%(M) | | | | | | | | | | | | | |
| Leakage Current (20°C) | I ≤ 0.01CV or 3 (μA) | | | | | | I : Leakage Current (μA) | | | | | | | |
| | *Whichever is greater after 2 minutes | | | | | | C : Rated Capacitance (μF) | | | | | | | |
| Surge Voltage (20°C) | W.V. | | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | |
| | S.V. | | 8 | 13 | 20 | 32 | 44 | 63 | | | | | | |
| Add 0.02 per 1000 μF for more than 1000 μF | | | | | | | | | | | | | | |
| Dissipation Factor (tan δ) (120Hz 20°C) | W.V. | | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | |
| | tan δ | φ4 ~ φ6.3 | | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | | | | | | |
| | | φ8 ~ φ10 | | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | | | | | | |
| Impedance ratio at 120Hz | | | | | | | | | | | | | | |
| Low Temperature Stability | Rated Voltage (V) | | | 6.3 | 10 | 16 | 25 | 35 | | | | | | |
| | -25°C / +20°C | | | 3 | 2 | 2 | 2 | 2 | | | | | | |
| | -55°C / +20°C | | | 5 | 4 | 4 | 3 | 3 | | | | | | |
| After hours ($\phi D \leq 6.3\text{mm}$ 1000 hours, $\phi D \geq 8\text{mm}$ 2000 hours) application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage \leq rate working voltage) | | | | | | | | | | | | | | |
| Load Life | Capacitance Change | | ≤ ±25% of initial value | | | | | | | | | | | |
| | Dissipation Factor | | ≤ 200% of initial specified value | | | | | | | | | | | |
| | Leakage current | | ≤ initial specified value | | | | | | | | | | | |
| At +105°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment) | | | | | | | | | | | | | | |
| Resistance to Soldering Heat | Capacitor placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature. | | | | | | | | | | | | | |
| | Capacitance Change | | ≤ ±10% of initial value | | | | | | | | | | | |
| | Dissipation Factor | | ≤ initial specified value | | | | | | | | | | | |
| | Leakage current | | ≤ initial specified value | | | | | | | | | | | |

DIMENSIONS (mm)

| D | L | A | H | I | W | P | K |
|------|------|------|---------|-----|----------|-----|--|
| 4.0 | 5.8 | 4.3 | 5.5MAX | 1.8 | 0.65±0.1 | 1.0 | 0.35 ^{+0.15} _{-0.20} |
| 5.0 | 5.8 | 5.3 | 6.5MAX | 2.2 | 0.65±0.1 | 1.5 | 0.35 ^{+0.15} _{-0.20} |
| 6.3 | 5.8 | 6.6 | 7.8MAX | 2.6 | 0.65±0.1 | 2.1 | 0.35 ^{+0.15} _{-0.20} |
| 6.3 | 7.7 | 6.6 | 7.8MAX | 2.6 | 0.65±0.1 | 2.1 | 0.35 ^{+0.15} _{-0.20} |
| 8.0 | 10.2 | 8.3 | 10.0MAX | 3.4 | 0.90±0.2 | 3.1 | 0.70±0.2 |
| 10.0 | 10.2 | 10.3 | 12.0MAX | 3.5 | 0.90±0.2 | 4.6 | 0.70±0.2 |



● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
 Max impedance : Ω 20°C 100kHz
 Max ripple current : mA(rms) 105°C 100kHz

| V(DC) μF | 6.3 | | | 10 | | | 16 | | | 25 | | | 35 | | | 50 | | |
|-------------|---------|------|------|---------|------|------|---------|------|------|---------|------|------|---------|------|------|---------|------|------|
| | DxL | IMP. | R.C. |
| 1.0 | | | | | | | | | | | | | | | | 4x5.8 | 5.00 | 30 |
| 2.2 | | | | | | | | | | | | | | | | 4x5.8 | 5.00 | 30 |
| 3.3 | | | | | | | | | | | | | | | | 4x5.8 | 5.00 | 30 |
| 4.7 | | | | | | | | | | | | | | | | 4x5.8 | 1.80 | 80 |
| 6.8 | | | | | | | | | | | | | | | | 5x5.8 | 1.20 | 120 |
| 10 | | | | | | | 4x5.8 | 1.80 | 80 | 4x5.8 | 1.80 | 80 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.88 | 165 |
| 15 | | | | | | | 4x5.8 | 1.80 | 80 | 5x5.8 | 0.76 | 150 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.88 | 165 |
| 22 | | | | 4x5.8 | 1.80 | 80 | 5x5.8 | 0.76 | 150 | 5x5.8 | 0.76 | 150 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.88 | 165 |
| 27 | 4x5.8 | 1.80 | 80 | 5x5.8 | 0.76 | 150 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.68 | 185 |
| 33 | 5x5.8 | 0.76 | 150 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.68 | 185 |
| 47 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.68 | 185 |
| 56 | 5x5.8 | 0.76 | 150 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.34 | 300 |
| 68 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.34 | 300 |
| 100 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.34 | 300 |
| 150 | 6.3x5.8 | 0.44 | 230 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.18 | 670 |
| 220 | 6.3x5.8 | 0.44 | 230 | 6.3x7.7 | 0.34 | 280 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.18 | 670 |
| 330 | 6.3x7.7 | 0.34 | 280 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.09 | 670 | | | |
| 470 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.09 | 670 | | | | | | |
| 680 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.09 | 670 | 10x10.2 | 0.09 | 670 | | | | | | | | | |
| 1000 | 8x10.2 | 0.17 | 450 | 10x10.2 | 0.09 | 670 | | | | | | | | | | | | |
| 1500 | 10x10.2 | 0.09 | 670 | | | | | | | | | | | | | | | |