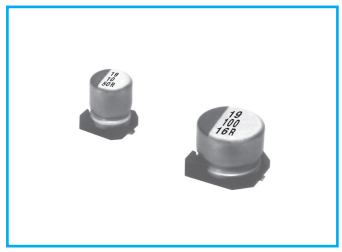
# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

## UR Chip type, High Reliability Series

Solvent Proof



- Chip type, high temperature range, for 125˚C use
- Lower ESR than UC series
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

UC ⇨ UR
Low ESR.

| Item | Characteristics |
|---|---|
| **Operating temperature range** | -40 ~ +125˚C |
| **Leakage current max.** | I = 0.01CV or 3μA whichever is greater (after 2 minutes) |
| **Capacitance tolerance** | ±20% at 120Hz, 20˚C |
| **Dissipation factor max.** | WV: 10 / 16 / 25 / 35 / 50<br>tanδ (Max.): 0.24 / 0.20 / 0.16 / 0.14 / 0.14 |
| **Temperature characteristics (Impedance ratio at 120Hz)** | WV: 10 / 16 / 25 / 35 / 50<br>Z-25˚C/Z+20˚C: 3 / 2 / 2 / 2 / 2<br>Z-40˚C/Z+20˚C: 4 / 3 / 3 / 3 / 3 |
| **Load life (after application of the rated voltage for 2000 hours at 125˚C)** | Leakage current: Less than specified value<br>Capacitance change: Within ±30% of initial value<br>tanδ: Less than 300% of specified value |
| **Shelf life (at 125˚C)** | After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20˚C by the KS C IEC 60384 - 4 |
| **Resistance to soldering heat** | The following specifications shall be satisfied when the capacitors are restored to 20˚C after exposing them at 250˚C for 10 seconds.<br>Leakage current: Less than specified value<br>Capacitance change: Within ±10% of initial value<br>tanδ: Less than specified value |

## DRAWING (See page 59)

Unit : mm

-Series code of UR is “R”

## DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

| μF \ WV | 10 | | | 16 | | | 25 | | | 35 | | | 50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **33** | | | | | | | | | | | | | 8×10 | 0.7 | 192 |
| **47** | | | | | | | | | | 8×10 | 0.3 | 264 | 10×10 | 0.5 | 330 |
| **100** | | | | 8×10 | 0.3 | 264 | 8×10 | 0.3 | 264 | 8×10 | 0.3 | 264 | 10×10 | 0.5 | 330 |
| **220** | 8×10 | 0.3 | 264 | 8×10 | 0.3 | 355 | 8×10 | 0.3 | 355 | 10×10 | 0.2 | 400 | | | |
| **330** | 8×10 | 0.3 | 355 | 10×10 | 0.2 | 400 | 10×10 | 0.2 | 400 | | | | | | |
| **470** | 10×10 | 0.2 | 400 | | | | | | | | | | | | |

Ripple current (mA rms) at 125˚C, 100kHz
ESR (Ω) at 20˚C, 100kHz
Case size ØD x L (mm)

## FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| Frequency | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz≦ |
|---|---|---|---|---|---|
| **Coefficient** | 0.35 | 0.50 | 0.64 | 0.83 | 1.00 |