

# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

Upgrade



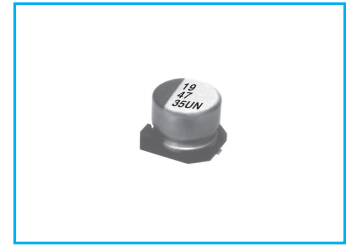
Chip type, High Reliability Series



Low ESR



Solvent Proof



Low ESR.

- Chip type, high temperature range, for 125°C use
- Lower ESR than UR series
- Application to automotive system
- Complied to the RoHS directive

| 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. (at 120Hz, 20°C)                                   | WV                                                                                                                                                                     | 35                                |
|                                                                            | tanδ                                                                                                                                                                   | 0.16                              |
| Low temperature characteristics (Impedance ratio at 120Hz)                 | WV                                                                                                                                                                     | 35                                |
|                                                                            | Z-25°C/Z+20°C                                                                                                                                                          | 2                                 |
|                                                                            | Z-40°C/Z+20°C                                                                                                                                                          | 3                                 |
| Load life (after application of the rated voltage for 2000 hours at 125°C) | Leakage current                                                                                                                                                        | Less than specified value         |
|                                                                            | Capacitance change                                                                                                                                                     | Within ±30% of initial value      |
|                                                                            | 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.                                  |                                   |
|                                                                            | Leakage current                                                                                                                                                        | Less than specified value         |
|                                                                            | Capacitance change                                                                                                                                                     | Within ±10% of initial value      |
|                                                                            | tanδ                                                                                                                                                                   | Less than specified value         |

● DRAWING (See page 60)

Unit : mm

-Series code of UN is "UN"

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

| WV<br>Item<br>μF | 35        |                            |                                         |
|------------------|-----------|----------------------------|-----------------------------------------|
|                  | ∅D×L(mm)  | ESR (Ω)max.<br>20°C 100kHz | Ripple current (mA rms)<br>125°C 100kHz |
| 47               | 6.3 × 7.7 | 0.30                       | 200                                     |
| 100              | 6.3 × 7.7 | 0.24                       | 240                                     |
| 220              | 8 × 10    | 0.20                       | 270                                     |
| 330              | 10 × 10   | 0.15                       | 500                                     |

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| Frequency   | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz ≤ |
|-------------|------|-------|-------|------|---------|
| Coefficient | 0.35 | 0.5   | 0.64  | 0.83 | 1.00    |