

ALUMINUM ELECTROLYTIC CAPACITORS



Chip Type, High Reliability.
Low temperature ESR specification.



For SMD



Long Life



Anti-Solvent Feature

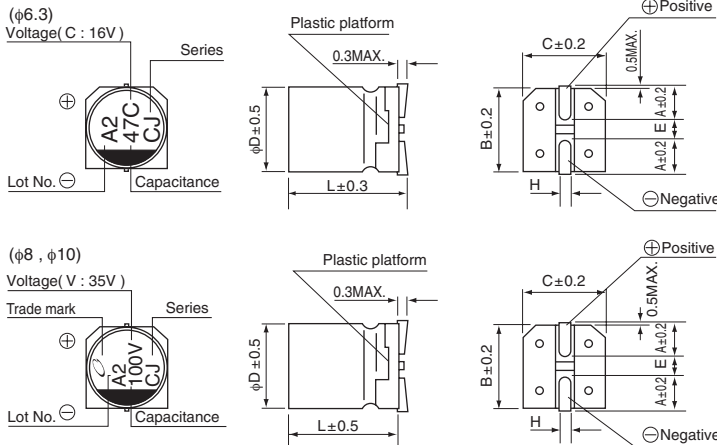
- Chip type, high temperature range, for +125°C use.
 - Added ESR specification after the test at -40°C (φ6.3 sizes provide only for the first stage.)
 - Applicable to automatic mounting machine fed with carrier tape.
 - Compliant to the RoHS directive (2011/65/EU).
 - AEC-Q200 compliant.
- Please contact us for details.



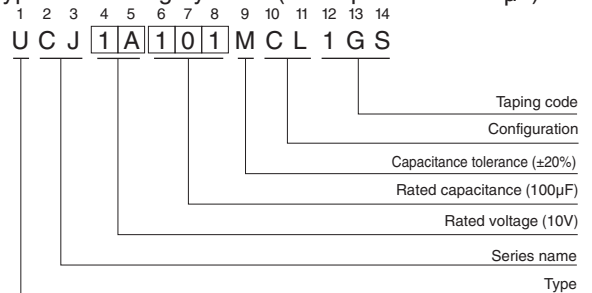
Specifications

| Item | Performance Characteristics | | | | | |
|-------------------------------|---|---|----|----|----|----|
| Category Temperature Range | -40 to +125°C | | | | | |
| Rated Voltage Range | 10 to 50V | | | | | |
| Rated Capacitance Range | 10 to 470μF | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | |
| Leakage Current | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4(μA), whichever is greater. | | | | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C | | | | | |
| | Rated voltage (V) | 10 | 16 | 25 | 35 | 50 |
| Stability at Low Temperature | Measurement frequency : 120Hz | | | | | |
| | Impedance ratio ZT / Z20 (MAX.) | Z-40°C / Z+20°C | 12 | 8 | 6 | 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 2000 hours at 125°C. | | | | | |
| | Capacitance change | Within ±30% of the initial capacitance value | | | | |
| | tan δ | 300% or less than the initial specified value | | | | |
| Shelf Life | After storing the capacitors under no load at 125°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. | | | | | |
| | Capacitance change | Within ±10% of the initial capacitance value | | | | |
| | tan δ | Less than or equal to the initial specified value | | | | |
| Resistance to soldering heat | The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C. | | | | | |
| | Capacitance change | Within ±10% of the initial capacitance value | | | | |
| | tan δ | Less than or equal to the initial specified value | | | | |
| Marking | Black print on the case top. | | | | | |

Chip Type



Type numbering system (Example : 10V 100μF)



| φD×L (mm) | 6.3×8.7 | 8×10 | 10×10 |
|-----------|------------|------------|------------|
| A | 2.4 | 2.9 | 3.2 |
| B | 6.6 | 8.3 | 10.3 |
| C | 6.6 | 8.3 | 10.3 |
| E | 2.2 | 3.1 | 4.5 |
| L | 8.7 | 10 | 10 |
| H | 0.5 to 0.8 | 0.8 to 1.1 | 0.8 to 1.1 |

| Voltage | 10 | 16 | 25 | 35 | 50 |
|---------|----|----|----|----|----|
| Code | A | C | E | V | H |

Dimensions

| Cap. (μF) | V | | 10 | | | 16 | | | 25 | | | 35 | | | 50 | | | | | | |
|-----------|------|---------|-----|-----|-----|---------|-----|-----|---------|---------|-----|-----|---------|---------|-----|-----|---------|---------------------|--------------|----------------------|--------------|
| | Code | | 1A | | | 1C | | | 1E | | | 1V | | | 1H | | | | | | |
| 10 | 100 | | | | | | | | | | | | | | | | | | | | |
| 22 | 220 | | | | | | | | 6.3×8.7 | 14 | - | 95 | 6.3×8.7 | 14 | - | 95 | 6.3×8.7 | 14 | - | 95 | |
| 33 | 330 | | | | | | | | 6.3×8.7 | 14 | - | 95 | 6.3×8.7 | 14 | - | 95 | 8×10 | 2.0 | 6.0 | 200 | |
| 47 | 470 | | | | | 6.3×8.7 | 14 | - | 95 | 6.3×8.7 | 14 | - | 95 | 6.3×8.7 | 14 | - | 95 | 10×10 | 1.5 | 4.5 | 330 |
| 100 | 101 | 6.3×8.7 | 14 | - | 95 | 8×10 | 2.0 | 6.0 | 250 | 8×10 | 2.0 | 6.0 | 250 | 10×10 | 1.5 | 4.5 | 400 | 10×10 | 1.5 | 4.5 | 330 |
| 220 | 221 | 8×10 | 2.0 | 6.0 | 250 | 10×10 | 1.5 | 4.5 | 400 | 10×10 | 1.5 | 4.5 | 400 | 10×10 | 1.5 | 4.5 | 400 | Case size φD×L (mm) | Initial test | after endurance test | Rated ripple |
| 330 | 331 | 10×10 | 1.5 | 4.5 | 400 | 10×10 | 1.5 | 4.5 | 400 | 10×10 | 1.5 | 4.5 | 400 | | | | | | | | |
| 470 | 471 | 10×10 | 1.5 | 4.5 | 400 | | | | | | | | | | | | | | | | |

Frequency coefficient of rated ripple current

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

Max. ESR (Ω) at -40°C 100kHz, Rated ripple current (mArms) at 125°C 100kHz

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

Mouser Electronics

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