

ALUMINUM ELECTROLYTIC CAPACITORS

UCH

Chip Type, High Reliability.
Low temperature ESR specification.



Expanded

- Added ESR specification after the test at -40°C.
- 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.

UCH ← Low ESR **UCZ**

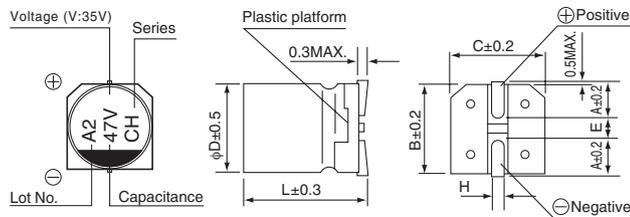


Specifications

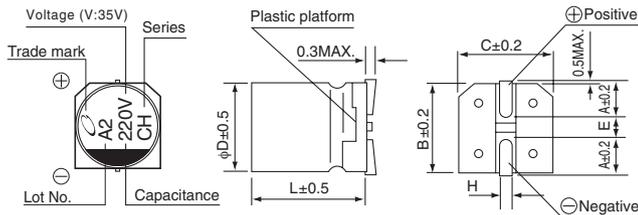
| Item | Performance Characteristics | | | | |
|-------------------------------|---|-----------------|------|---------------------------------------|---|
| Category Temperature Range | -40 to +125°C | | | | |
| Rated Voltage Range | 25 to 35V | | | | |
| Rated Capacitance Range | 47 to 560μF | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | |
| Leakage Current | After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV (μA). | | | | |
| Tangent of loss angle (tan δ) | Rated voltage (V) | 25 | 35 | Measurement frequency : 120Hz at 20°C | |
| | tan δ (MAX.) | 0.18 | 0.16 | | |
| Stability at Low Temperature | Rated voltage (V) | 25 | 35 | Measurement frequency : 120Hz | |
| | Impedance ratio ZT / Z20 (MAX.) | Z-40°C / Z+20°C | 3 | | 3 |
| 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. | | | Leakage current | 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. | | | Leakage current | Less than or equal to the initial specified value |
| | | | | | |

Chip Type

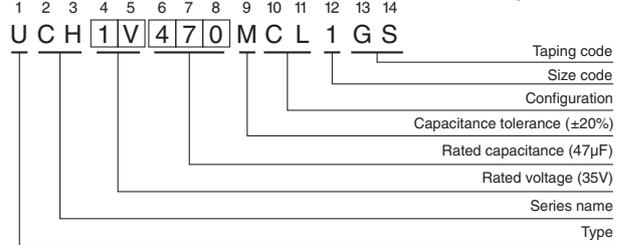
(φ 6.3)



(φ8, φ10)



Type numbering system (Example : 35V 47μF)



| Voltage Code | Voltage | |
|--------------|---------|----|
| | 25 | 35 |
| E | | V |

| φDxL (mm) | (mm) | | |
|-----------|------------|------------|------------|
| | 6.3×7.7 | 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 | 7.7 | 10 | 10 |
| H | 0.5 to 0.8 | 0.8 to 1.1 | 0.8 to 1.1 |

Dimensions

| Cap. (μF) | Code | 25 | | | | 35 | | | | | |
|-----------|------|-----------|------|-----|-----|-----------|---------|------|-----|-----|-----|
| | | 1E | | | | 1V | | | | | |
| 47 | 470 | | | | | 6.3 × 7.7 | 0.30 | 3 | 6 | 197 | |
| 100 | 101 | | | | | 6.3 × 7.7 | 0.30 | 3 | 6 | 197 | |
| 150 | 151 | 6.3 × 7.7 | 0.30 | 3 | 6 | 197 | | | | | |
| 220 | 221 | | | | | 8 × 10 | 0.20 | 2 | 4.5 | 270 | |
| 330 | 331 | 8 × 10 | 0.20 | 2 | 4.5 | 270 | 10 × 10 | 0.15 | 1.5 | 3.5 | 500 |
| 560 | 561 | 10 × 10 | 0.15 | 1.5 | 3.5 | 500 | | | | | |

Frequency coefficient of rated ripple current

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

| Case size φD × L (mm) | Initial 20°C 100kHz | Initial -40°C 100kHz | after endurance test 2000hours -40°C 400kHz | Rated ripple |
|-----------------------|---------------------|----------------------|---|--------------|
| | ESR | | | |

Rated ripple Current (mArms) at 125°C 100kHz

CAT.8100H