

# ALUMINUM ELECTROLYTIC CAPACITORS

**UCH** Chip Type, High Reliability.  
Low temperature ESR specification.



**NEW**

- 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).

**UCH** ← Low ESR **UCZ**

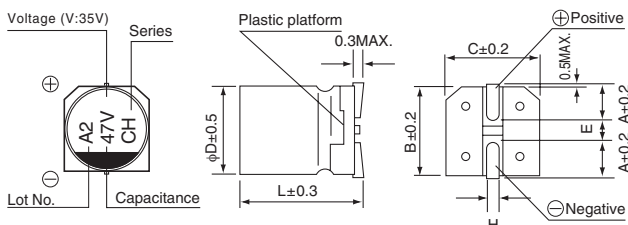


## Specifications

| Item                                  | Performance Characteristics   |   |
|---------------------------------------|---|---|
| Category Temperature Range            | -40 to +125°C   |   |
| Rated Voltage Range                   | 35V   |   |
| Rated Capacitance Range               | 47 to 100μF   |   |
| Capacitance Tolerance                 | ±20% at 120Hz, 20°C   |   |
| Leakage Current                       | After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV.   |   |
| Tangent of loss angle (tan δ)         | Rated voltage (V)   | 35  |
|                                       | tan δ (MAX.)  | 0.16  |
| Measurement frequency : 120Hz at 20°C |   |   |
| Stability at Low Temperature          | Rated voltage (V)   | 35  |
|                                       | Impedance ratio ZT / Z20 (MAX.)   | Z-40°C / Z+20°C 3                                 |
| Measurement frequency : 120Hz         |   |   |
| 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      |
|                                       | Leakage current   | Less than or equal to the initial specified value |
| Marking                               | Black print on the case top.  |   |

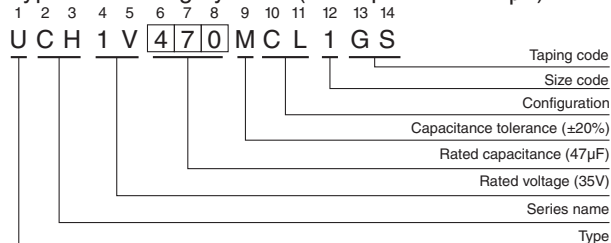
## Chip Type

(φ 6.3)



| Rated Voltage |    | (mm) |            |
|---------------|----|------|------------|
| V             | 35 | φD   | 6.3×7.7    |
| Code          | V  | A    | 2.4        |
|               |    | B    | 6.6        |
|               |    | C    | 6.6        |
|               |    | E    | 2.2        |
|               |    | L    | 7.7        |
|               |    | H    | 0.5 to 0.8 |

## Type numbering system (Example : 35V 47μF)



## Dimensions

| Cap. (μF) | V    |                       | 35           |               |                        |                                     |
|-----------|------|-----------------------|--------------|---------------|------------------------|-------------------------------------|
|           | Code |                       | 1V           |               |                        |                                     |
| 47        | 470  | 6.3 × 7.7             | 0.30         | 3             | 6                      | 197                                 |
| 100       | 101  | 6.3 × 7.7             | 0.30         | 3             | 6                      | 197                                 |
|           |      | Case size φD × L (mm) | Initial 20°C | Initial -40°C | after 2000hrs at -40°C | Rated 100kHz, 100kHz, 400kHz ripple |
|           |      |                       | ESR          |               |                        |                                     |

Max. ESR (Ω) at 20°C / -40°C 100k to 400kHz,  
Rated ripple Current (mA<sub>rms</sub>) at 125°C 100kHz

## 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          |

Design, Specifications are subject to change without notice.