

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

**UT**

6mmL Chip Type, Wide Temperature Range

series



For SMD



Anti-Solvent  
Feature

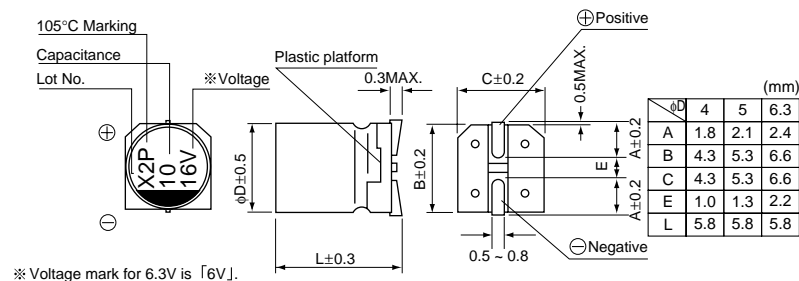
- Chip type with load life 2000 hours at +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.



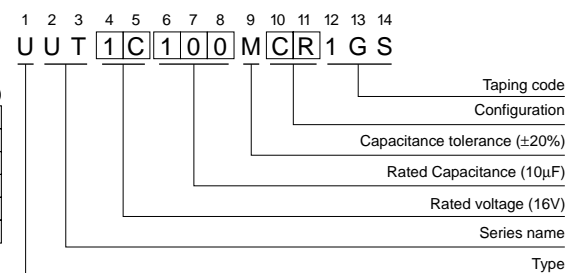
## Specifications

| Item                         | Performance Characteristics  |                 |      |      |                    |                    |  |                                 |    |
|------------------------------|--|-----------------|------|------|--------------------|--------------------|--|---------------------------------|----|
| Category Temperature Range   | -55 ~ +105°C   |                 |      |      |                    |                    |  |                                 |    |
| Rated Voltage Range          | 4 ~ 50V  |                 |      |      |                    |                    |  |                                 |    |
| Rated Capacitance Range      | 0.1 ~ 100μF  |                 |      |      |                    |                    |  |                                 |    |
| Capacitance Tolerance        | ±20% at 120Hz, 20°C  |                 |      |      |                    |                    |  |                                 |    |
| Leakage Current              | After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA) , whichever is greater.  |                 |      |      |                    |                    |  |                                 |    |
| tan δ                        | Measurement frequency :120Hz, Temperature : 20°C   |                 |      |      |                    |                    |  |                                 |    |
|                              | Rated voltage (V)  | 4               | 6.3  | 10   | 16                 | 25                 | 35   | 50                              |    |
|                              | tan δ (MAX.)   | 0.37            | 0.28 | 0.24 | 0.20               | 0.16               | 0.13                                       | 0.12                            |    |
| Stability at Low Temperature | Measurement frequency :120Hz   |                 |      |      |                    |                    |  |                                 |    |
|                              | Rated voltage (V)  |                 | 4    | 6.3  | 10                 | 16                 | 25   | 35                              | 50 |
|                              | Impedance ratio  | Z-25°C / Z+20°C | 6    | 3    | 3                  | 2                  | 2  | 2                               | 2  |
|                              | ZT / Z20 (MAX.)  | Z-40°C / Z+20°C | 12   | 8    | 5                  | 4                  | 3  | 3                               | 3  |
| Endurance                    | After 2000 hours' application of rated voltage at 105°C , capacitors meet the characteristic requirements listed at right.   |                 |      |      | Capacitance change |                    | Within ±25% of initial value (16V or less) |                                 |    |
|                              |  |                 |      |      | tan δ              |                    | 200% or less of initial specified value    |                                 |    |
|                              |  |                 |      |      | Leakage current    |                    | Initial specified value or less            |                                 |    |
|                              |  |                 |      |      |                    |                    |  |                                 |    |
| Shelf Life                   | After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.  |                 |      |      |                    |                    |  |                                 |    |
| Resistance to soldering heat | The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right. |                 |      |      |                    | Capacitance change |  | Within ±10% of initial value    |    |
|                              |  |                 |      |      |                    | tan δ              |  | Initial specified value or less |    |
|                              |  |                 |      |      |                    | Leakage current    |  | Initial specified value or less |    |
| Marking                      | Black print on the case top.   |                 |      |      |                    |                    |  |                                 |    |

## Chip Type



## Type numbering system (Example : 16V 10μF)



- The lead-free product is also available upon request.
- In this case, **L** will be put at 11th digit of type numbering system.

## Dimensions

| V         | 4   | 6.3    | 10     | 16     | 25     | 35     | 50     |
|-----------|-----|--------|--------|--------|--------|--------|--------|
| Cap. (μF) | 0G  | 0J     | 1A     | 1C     | 1E     | 1V     | 1H     |
| 0.1       | 0R1 |        |        |        |        |        | 4 1.0  |
| 0.22      | R22 |        |        |        |        |        | 4 2.6  |
| 0.33      | R33 |        |        |        |        |        | 4 3.2  |
| 0.47      | R47 |        |        |        |        |        | 4 3.8  |
| 1         | 010 |        |        |        |        |        | 4 6.2  |
| 2.2       | 2R2 |        |        |        |        |        | 4 11   |
| 3.3       | 3R3 |        |        |        |        |        | 4 14   |
| 4.7       | 4R7 |        |        |        |        |        | 5 19   |
| 10        | 100 |        |        | 4 18   | 5 23   | 5 25   | 6.3 30 |
| 22        | 220 | 4 22   | 4 22   | 5 27   | 5 30   | 6.3 38 | 6.3 42 |
| 33        | 330 | 5 30   | 5 30   | 5 35   | 6.3 40 | 6.3 48 |        |
| 47        | 470 | 5 36   | 5 36   | 6.3 46 | 6.3 50 |        |        |
| 100       | 101 | 6.3 60 | 6.3 60 | 6.3 60 |        |        |        |

Rated Ripple (mA rms) at 105°C 120Hz

## Frequency coefficient of rated ripple current

| Frequency   | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz~ |
|-------------|-------|--------|--------|-------|---------|
| Coefficient | 0.70  | 1.00   | 1.17   | 1.36  | 1.50    |

- Taping specifications are given in page 22.
- Recommended land size are given in page 23
- Please refer to page 3 for the minimum order quantity.

CAT.8100T