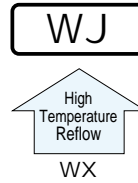




5.5mmL Chip Type  
High Temperature (260°C) Reflow series



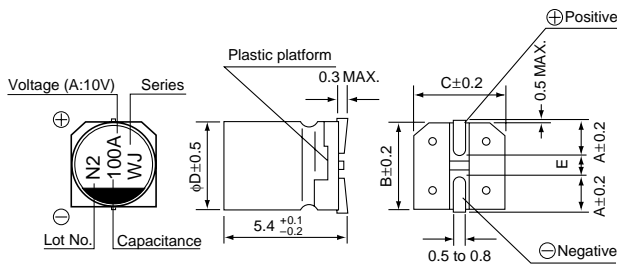
- Corresponding with 260°C peak reflow soldering  
Recommended reflow condition : 260°C peak 5 sec. 230°C over 60 sec. 2 times
- Chip type with 5.5mm height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- Load life of 2000 hours at 85°C
- Adapted to the RoHS directive (2002/95/EC).



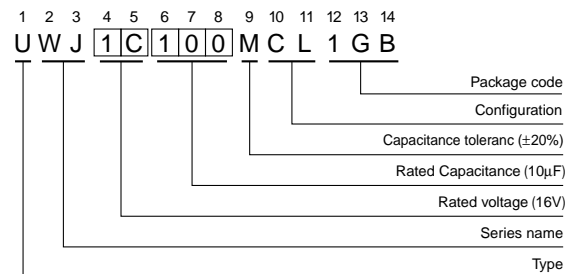
## Specifications

| Item                         | Performance Characteristics  |                    |                    |                              |   |    |    |    |   |
|------------------------------|--|--------------------|--------------------|------------------------------|---|----|----|----|---|
| Category Temperature Range   | -40 to +85°C   |                    |                    |                              |   |    |    |    |   |
| Rated Voltage Range          | 6.3 to 50V   |                    |                    |                              |   |    |    |    |   |
| Rated Capacitance Range      | 0.1 to 150μF   |                    |                    |                              |   |    |    |    |   |
| Capacitance Tolerance        | ±20% at 120Hz, 20°C  |                    |                    |                              |   |    |    |    |   |
| Leakage Current              | After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA) ,whichever is greater.  |                    |                    |                              |   |    |    |    |   |
| tan δ                        | Measurement frequency : 120Hz, Temperature : 20°C  |                    |                    |                              |   |    |    |    |   |
|                              | Rated voltage (V)  | 6.3                | 10                 | 16                           | 25                                      | 35 | 50 |    |   |
| Stability at Low Temperature | Measurement frequency : 120Hz  |                    |                    |                              |   |    |    |    |   |
|                              | Rated voltage (V)  |                    | 6.3                | 10                           | 16                                      | 25 | 35 | 50 |   |
|                              | Impedance ratio  | Z-25°C / Z+20°C    | 4                  | 3                            | 2                                       | 2  | 2  | 2  |   |
| Endurance                    | ZT / Z20 (MAX.)  |                    | Z-40°C / Z+20°C    | 8                            | 8                                       | 4  | 4  | 3  | 3 |
|                              | After 2000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.   | Capacitance change |                    | Within ±20% of initial value |   |    |    |    |   |
| Shelf Life                   | After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above. |                    | tan δ              |                              | 200% or less of initial specified value |    |    |    |   |
|                              |  |                    | Leakage Current    |                              | Initial specified value or less         |    |    |    |   |
| 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)



### Voltage

|      |     |    |    |    |    |    |
|------|-----|----|----|----|----|----|
| V    | 6.3 | 10 | 16 | 25 | 35 | 50 |
| Code | j   | A  | C  | E  | V  | H  |

|   | φD  | 4   | 5   | 6.3 |
|---|-----|-----|-----|-----|
| A | 1.8 | 2.1 | 2.4 |     |
| B | 4.3 | 5.3 | 6.6 |     |
| C | 4.3 | 5.3 | 6.6 |     |
| E | 1.0 | 1.3 | 2.2 |     |

● Dimension table in next page.

## ■ Dimensions

| Cap. (μF) | Code | 6.3 |    | 10  |    | 16  |    | 25  |    | 35  |    | 50                   |                 |
|-----------|------|-----|----|-----|----|-----|----|-----|----|-----|----|----------------------|-----------------|
|           |      | 0J  |    | 1A  |    | 1C  |    | 1E  |    | 1V  |    | 1H                   |                 |
| 0.1       | 0R1  |     |    |     |    |     |    |     |    |     |    | 4                    | 1.0             |
| 0.22      | R22  |     |    |     |    |     |    |     |    |     |    | 4                    | 2.0             |
| 0.33      | R33  |     |    |     |    |     |    |     |    |     |    | 4                    | 2.8             |
| 0.47      | R47  |     |    |     |    |     |    |     |    |     |    | 4                    | 4.0             |
| 1         | 010  |     |    |     |    |     |    |     |    |     |    | 4                    | 8.4             |
| 2.2       | 2R2  |     |    |     |    |     |    |     |    |     |    | 4                    | 13              |
| 3.3       | 3R3  |     |    |     |    |     |    |     |    |     |    | 4                    | 17              |
| 4.7       | 4R7  |     |    |     |    |     |    | 4   | 16 | 4   | 18 | 5                    | 20              |
| 10        | 100  |     |    |     |    | 4   | 23 | 5   | 27 | 5   | 29 | 6.3                  | 33              |
| 22        | 220  | 4   | 28 | 5   | 33 | 5   | 37 | 6.3 | 42 | 6.3 | 45 |                      |                 |
| 33        | 330  | 5   | 37 | 5   | 41 | 6.3 | 49 | 6.3 | 52 |     |    |                      |                 |
| 47        | 470  | 5   | 45 | 6.3 | 52 | 6.3 | 58 |     |    |     |    |                      |                 |
| 100       | 101  | 6.3 | 70 | 6.3 | 76 | 6.3 | 86 |     |    |     |    |                      |                 |
| 150       | 151  | 6.3 | 71 |     |    |     |    |     |    |     |    | Case size<br>φD (mm) | Rated<br>ripple |

Rated Ripple (mArms) at 85°C 120Hz

### ● Frequency coefficient of rated ripple current

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

- 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.