

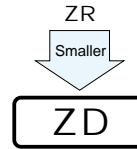
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

ZD 3.0mmL Chip Type
series



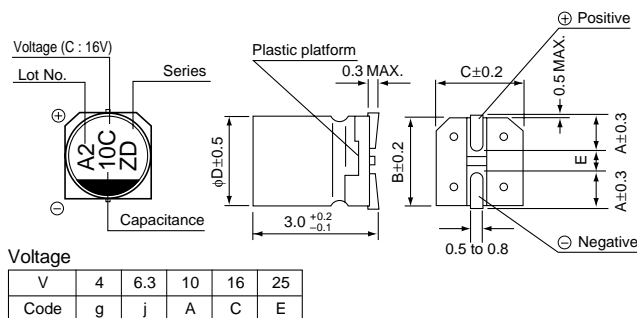
- Chip type with 3.0mmL height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



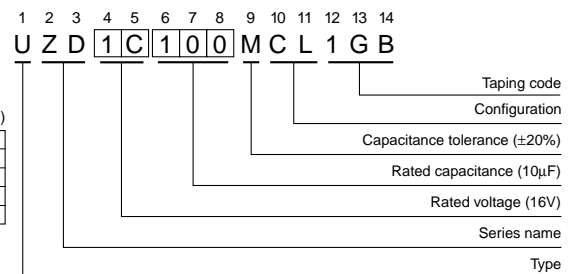
Specifications

| Item | Performance Characteristics | | | | | | | |
|-------------------------------|--|-----------------|------|------|--------------------|------|---|---|
| Category Temperature Range | −40 to +85°C | | | | | | | |
| Rated Voltage Range | 4 to 25V | | | | | | | |
| Rated Capacitance Range | 2.2 to 100μF | | | | | | | |
| Capacitance Tolerance | ± 20% at 120Hz, 20°C | | | | | | | |
| Leakage Current | After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA) , whichever is greater. | | | | | | | |
| Tangent of loss angle (tan δ) | Rated voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 120Hz 20°C | |
| | tan δ (MAX.) | 0.50 | 0.40 | 0.30 | 0.24 | 0.19 | | |
| Stability at Low Temperature | Rated voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 120Hz | |
| | Impedance ratio ZT / Z20 (MAX.) | Z−25°C / Z+20°C | 7 | 4 | 3 | 2 | | 2 |
| | | Z−40°C / Z+20°C | 15 | 8 | 8 | 4 | | 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 1000 hours at 85°C. | | | | Capacitance change | | Within ±30% of the initial capacitance value | |
| | | | | | tan δ | | 300% or less than the initial specified value | |
| | | | | | Leakage current | | Less than or equal to the initial specified value | |
| Shelf Life | After storing the capacitors under no load at 85°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. | | | | | | | |
| 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 | |
| | | | | | Leakage current | | Less than or equal to the initial specified value | |
| Marking | Black print on the case top. | | | | | | | |

Chip Type



Type numbering system (Example : 16V 10μF)



Dimensions

| V | | 4 | | 6.3 | | 10 | | 16 | | 25 | |
|-----------|------|-----|----|-----|----|-----|----|-----|----|-----|----|
| Cap. (μF) | Code | 0G | 0J | 1A | 1C | 1E | | | | | |
| 2.2 | 2R2 | | | | | | | | | 4 | 7 |
| 3.3 | 3R3 | | | | | | | | | 4 | 11 |
| 4.7 | 4R7 | | | | | | | | | 4 | 16 |
| 5.6 | 5R6 | | | | | | | | | 5 | 18 |
| 6.8 | 6R8 | | | | | | | | | 5 | 20 |
| 10 | 100 | | | | | | | 5 | 23 | 6.3 | 27 |
| 22 | 220 | 4 | 20 | 5 | 28 | 5 | 33 | 6.3 | 37 | | |
| 33 | 330 | 5 | 28 | 5 | 37 | 6.3 | 41 | | | | |
| 47 | 470 | 5 | 33 | 6.3 | 45 | | | | | | |
| 100 | 101 | 6.3 | 56 | 6.3 | 70 | | | | | | |

Rated ripple current (mA rms) 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.

CAT.8100C