

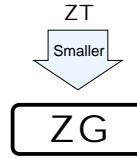
ALUMINUM ELECTROLYTIC CAPACITORS



ZG 3.95mmL MAX. Chip Type,
Wide Temperature Range
series



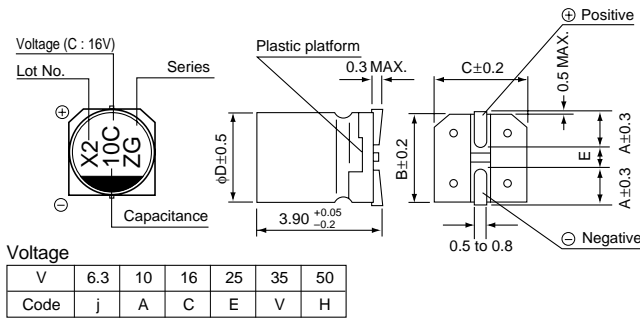
- Chip type with 3.95mmLMAX height. Operating over wide temperature range of -40 to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2002/95/EC).



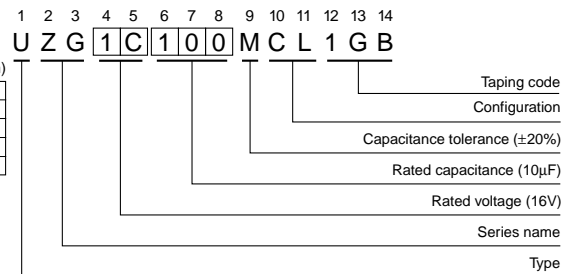
Specifications

| Item | Performance Characteristics | | | | | | | | | |
|-------------------------------|---|-----------------|------|------|------|------|--------------------|------------|-----------------|--|
| Category Temperature Range | -40 to +105°C | | | | | | | | | |
| Rated Voltage Range | 6.3 to 50V | | | | | | | | | |
| Rated Capacitance Range | 0.1 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) | 6.3 | 10 | 16 | 25 | 35 | 50 | 120Hz 20°C | | |
| | tan δ (MAX.) | 0.38 | 0.32 | 0.20 | 0.16 | 0.14 | 0.14 | | | |
| Stability at Low Temperature | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 120Hz | | |
| | Impedance ratio ZT / Z20 (MAX.) | Z-25°C / Z+20°C | 6 | 5 | 3 | 3 | 3 | | 3 | |
| | | Z-40°C / Z+20°C | 10 | 10 | 6 | 6 | 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 105°C. | | | | | | Capacitance change | tan δ | Leakage current | Within ±30% of the initial capacitance value 300% or less than the initial specified value Less than or equal to the initial specified value |
| Shelf Life | After storing the capacitors under no load at 105°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 | tan δ | Leakage current | Within ±10% of the initial capacitance value Less than or equal to the initial specified value 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

| Cap. (μF) | V | | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|-----------|------|-----|-----|-----|----|-----|----|-----|----|-----|----|----|-----|-----|
| | Code | | 0J | | 1A | | 1C | | 1E | | 1V | | 1H | |
| 0.1 | 0R1 | | | | | | | | | | | | 4 | 0.9 |
| 0.22 | R22 | | | | | | | | | | | | 4 | 2.2 |
| 0.33 | R33 | | | | | | | | | | | | 4 | 2.8 |
| 0.47 | R47 | | | | | | | | | | | | 4 | 3.3 |
| 1 | 010 | | | | | | | | | | | | 4 | 5.4 |
| 2.2 | 2R2 | | | | | | | | | | | | 4 | 9.6 |
| 3.3 | 3R3 | | | | | | | | | | | | 4 | 12 |
| 4.7 | 4R7 | | | | | | | | 4 | 11 | 4 | 13 | 5 | 16 |
| 10 | 100 | | | | | | 4 | 16 | 5 | 20 | 5 | 22 | 6.3 | 26 |
| 22 | 220 | 4 | 19 | 5 | 24 | 5 | 26 | 6.3 | 33 | 6.3 | 36 | | | |
| 33 | 330 | 5 | 26 | 5 | 30 | 6.3 | 35 | 6.3 | 42 | | | | | |
| 47 | 470 | 5 | 32 | 6.3 | 40 | 6.3 | 44 | | | | | | | |
| 100 | 101 | 6.3 | 52 | | | | | | | | | | | |

Rated ripple current (mArms) at 105°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.8100Z