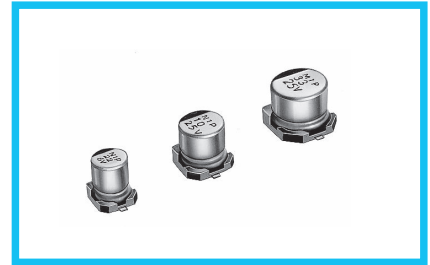


ALUMINUM ELECTROLYTIC CAPACITORS

UWF Chip Type, Low Impedance



- Chip type, low impedance temperature range up 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 (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

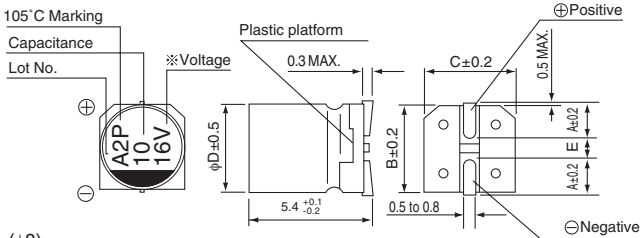


Specifications

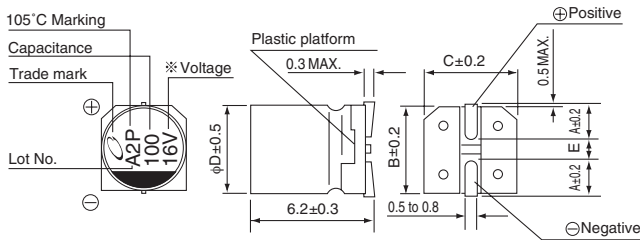
| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|--|--|----|----|----|--------------------|--|--|--|--|--|-------|---|--|--|--|--|-----------------|---|--|--|--|--|
| Category Temperature Range | -55 to +105°C | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 35V | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | 1 to 220μF | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater. | | | | | | | | | | | | | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C | | | | | | | | | | | | | | | | | | | | | | | |
| | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | | | | | | | | | | | | | | | | | | |
| Stability at Low Temperature | Measurement frequency : 120Hz | | | | | | | | | | | | | | | | | | | | | | | |
| | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | | | | | | | | | | | | | | | | | | |
| 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. | | <table border="1"> <tr> <td>Capacitance change</td> <td colspan="5">Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td colspan="5">200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> </table> | | | | Capacitance change | Within ±20% of the initial capacitance value | | | | | tan δ | 200% or less than the initial specified value | | | | | Leakage current | Less than or equal to the initial specified value | | | | |
| | Capacitance change | Within ±20% of the initial capacitance value | | | | | | | | | | | | | | | | | | | | | | |
| tan δ | 200% or less than the initial specified value | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current | 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. | | <table border="1"> <tr> <td>Capacitance change</td> <td colspan="5">Within ±10% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> </table> | | | | 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 | | | | |
| | 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

(φ4 to φ6.3)



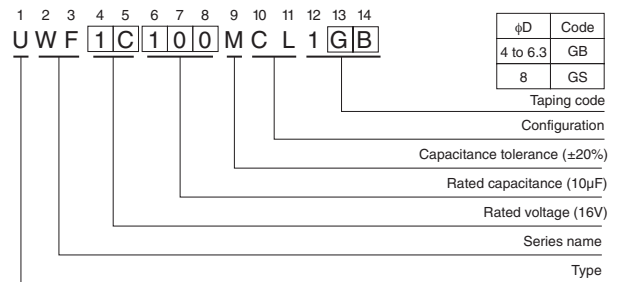
(φ8)



※ Voltage mark for 6.3V is 6V.

| (mm) | φD | 4 | 5 | 6.3 | 8 |
|------|----|-----|-----|-----|-----|
| A | | 1.8 | 2.1 | 2.4 | 3.3 |
| B | | 4.3 | 5.3 | 6.6 | 8.3 |
| C | | 4.3 | 5.3 | 6.6 | 8.3 |
| E | | 1.0 | 1.3 | 2.2 | 2.3 |

Type numbering system (Example : 16V 10μF)



Frequency coefficient of rated ripple current

| Frequency | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz or more |
|-------------|-------|--------|--------|-------|----------------|
| Coefficient | 0.35 | 0.50 | 0.64 | 0.83 | 1.00 |

● Dimension table in next page.



■ Dimensions

| Rated Voltage (V) (code) | Rated Capacitance (μF) | Case Size φD×L (mm) | tan δ | Leakage Current (μA) (at 20°C after 2 minutes) | Impedance (Ω) MAX. (20°C/100kHz) | Rated Ripple (mAmps) (105°C/100kHz) | Part Number |
|--------------------------|------------------------|---------------------|-------|--|----------------------------------|-------------------------------------|----------------|
| 6.3 (0J) | 22 | 4×5.4 | 0.22 | 3 | 5.0 | 50 | UWF0J220MCL1GB |
| | 33 | 5×5.4 | 0.22 | 3 | 2.6 | 80 | UWF0J330MCL1GB |
| | 47 | 5×5.4 | 0.22 | 3 | 2.6 | 80 | UWF0J470MCL1GB |
| | 68 | 6.3×5.4 | 0.22 | 4.284 | 1.3 | 115 | UWF0J680MCL1GB |
| | 100 | 6.3×5.4 | 0.22 | 6.3 | 1.3 | 115 | UWF0J101MCL1GB |
| | 150 | 8×6.2 | 0.22 | 9.45 | 0.8 | 150 | UWF0J151MCL1GS |
| | 220 | 8×6.2 | 0.22 | 13.86 | 0.8 | 150 | UWF0J221MCL1GS |
| 10 (1A) | 22 | 5×5.4 | 0.19 | 3 | 2.6 | 80 | UWF1A220MCL1GB |
| | 33 | 5×5.4 | 0.19 | 3.3 | 2.6 | 80 | UWF1A330MCL1GB |
| | 47 | 6.3×5.4 | 0.19 | 4.7 | 1.3 | 115 | UWF1A470MCL1GB |
| | 68 | 6.3×5.4 | 0.19 | 6.8 | 1.3 | 115 | UWF1A680MCL1GB |
| | 100 | 8×6.2 | 0.19 | 10 | 0.8 | 150 | UWF1A101MCL1GS |
| | 150 | 8×6.2 | 0.19 | 15 | 0.8 | 150 | UWF1A151MCL1GS |
| 16 (1C) | 10 | 4×5.4 | 0.16 | 3 | 5.0 | 50 | UWF1C100MCL1GB |
| | 15 | 5×5.4 | 0.16 | 3 | 2.6 | 80 | UWF1C150MCL1GB |
| | 22 | 5×5.4 | 0.16 | 3.52 | 2.6 | 80 | UWF1C220MCL1GB |
| | 33 | 6.3×5.4 | 0.16 | 5.28 | 1.3 | 115 | UWF1C330MCL1GB |
| | 47 | 6.3×5.4 | 0.16 | 7.52 | 1.3 | 115 | UWF1C470MCL1GB |
| | 68 | 8×6.2 | 0.16 | 10.88 | 0.8 | 150 | UWF1C680MCL1GS |
| | 100 | 8×6.2 | 0.16 | 16 | 0.8 | 150 | UWF1C101MCL1GS |
| 25 (1E) | 4.7 | 4×5.4 | 0.14 | 3 | 5.0 | 50 | UWF1E47MCL1GB |
| | 6.8 | 4×5.4 | 0.14 | 3 | 5.0 | 50 | UWF1E68MCL1GB |
| | 10 | 5×5.4 | 0.14 | 3 | 2.6 | 80 | UWF1E100MCL1GB |
| | 15 | 6.3×5.4 | 0.14 | 3.75 | 1.3 | 115 | UWF1E150MCL1GB |
| | 22 | 6.3×5.4 | 0.14 | 5.5 | 1.3 | 115 | UWF1E220MCL1GB |
| | 33 | 6.3×5.4 | 0.14 | 8.25 | 1.3 | 115 | UWF1E330MCL1GB |
| | 47 | 8×6.2 | 0.14 | 11.75 | 0.8 | 150 | UWF1E470MCL1GS |
| | 68 | 8×6.2 | 0.14 | 17 | 0.8 | 150 | UWF1E680MCL1GS |
| 35 (1V) | 1 | 4×5.4 | 0.12 | 3 | 5.0 | 50 | UWF1V010MCL1GB |
| | 1.5 | 4×5.4 | 0.12 | 3 | 5.0 | 50 | UWF1V1R5MCL1GB |
| | 2.2 | 4×5.4 | 0.12 | 3 | 5.0 | 50 | UWF1V2R2MCL1GB |
| | 3.3 | 4×5.4 | 0.12 | 3 | 5.0 | 50 | UWF1V3R3MCL1GB |
| | 4.7 | 4×5.4 | 0.12 | 3 | 5.0 | 50 | UWF1V4R7MCL1GB |
| | 6.8 | 5×5.4 | 0.12 | 3 | 2.6 | 80 | UWF1V6R8MCL1GB |
| | 10 | 5×5.4 | 0.12 | 3.5 | 2.6 | 80 | UWF1V100MCL1GB |
| | 15 | 6.3×5.4 | 0.12 | 5.25 | 1.3 | 115 | UWF1V150MCL1GB |
| | 22 | 6.3×5.4 | 0.12 | 7.7 | 1.3 | 115 | UWF1V220MCL1GB |
| | 33 | 8×6.2 | 0.12 | 11.55 | 0.8 | 150 | UWF1V330MCL1GS |
| 47 | 8×6.2 | 0.12 | 16.45 | 0.8 | 150 | UWF1V470MCL1GS | |

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16, 17.
- Please select UUU(p.184) if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.