

ALUMINUM ELECTROLYTIC CAPACITORS



UR series Chip Type, High CV



- Chip type, higher capacitance in larger case sizes.
- 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 +85°C | | | | | | | | | | |
| Rated Voltage Range | 4 to 100V | | | | | | | | | | |
| Rated Capacitance Range | 3.3 to 1500μF | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | |
| Leakage Current | After 1 minute's application of rated voltage, leakage current is not more than 0.03CV (μA) . | | | | | | | | | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C | | | | | | | | | | |
| | Rated voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | |
| Stability at Low Temperature | Measurement frequency: 120Hz | | | | | | | | | | |
| | Rated voltage (V) | | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | Impedance ratio | Z-25°C / Z+20°C | 7 | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 |
| Endurance | ZT / Z20 (MAX.) | | Z-40°C / Z+20°C | 15 | 10 | 8 | 6 | 4 | 3 | 3 | 3 |
| | The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C. | | Capacitance change | | Within ±20% of the initial capacitance value | | | | | | |
| Shelf Life | 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 | 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. | | | | | | | | | | |
| | Capacitance change | | Within ±10% of the initial capacitance value | | | | | | | | |
| Marking | tan δ | | Less than or equal to the initial specified value | | | | | | | | |
| | Leakage current | | Less than or equal to the initial specified value | | | | | | | | |
| 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 | | | | | | | |
| Black print on the case top. | | tan δ | | Less than or equal to the initial specified value | | | | | | | |
| | | Leakage current | | Less than or equal to the initial specified value | | | | | | | |

Chip Type



Type numbering system (Example : 10V 100μF)



(φ8 × 10, φ10 × 10)



| φD × L | 6.3 × 5.8 | 6.3 × 7.7 | 8 × 6.2 | 8 × 10 | 10 × 10 |
|--------|------------|------------|------------|------------|------------|
| A | 2.4 | 2.4 | 3.3 | 2.9 | 3.2 |
| B | 6.6 | 6.6 | 8.3 | 8.3 | 10.3 |
| C | 6.6 | 6.6 | 8.3 | 8.3 | 10.3 |
| E | 2.2 | 2.2 | 2.3 | 3.1 | 4.5 |
| L | 5.8 | 7.7 | 6.2 | 10 | 10 |
| H | 0.5 to 0.8 | 0.5 to 0.8 | 0.5 to 0.8 | 0.8 to 1.1 | 0.8 to 1.1 |

(mm)

● Dimension table in next page.

UR series

■ Dimensions

| Cap.(μF) | Code | V | | | | | | | | | | Case size φD × L (mm) | Rated ripple | | | | | | | | | | | | |
|----------|------|---------|-----|---------|-----------|-------|-----|---------|-----------|---------|-----------|-----------------------------|-----------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|-------|-----|--|--|
| | | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | |
| | | 0G | 0J | 1A | 1C | 1E | 1V | 1H | 1J | 2A | | | | | | | | | | | | | | | |
| 3.3 | 3R3 | | | | | | | | | | | 6.3×5.8 | 29 | | | | | | | | | | | | |
| 4.7 | 4R7 | | | | | | | | | | | 6.3×5.8 | 31 | ● 8×6.2 | 40 (35) | | | | | | | | | | |
| 10 | 100 | | | | | | | | | | | 8×6.2 | 46 | 8×10 | 77 | | | | | | | | | | |
| 22 | 220 | | | | | | | | | | | 6.3×5.8 | 45 | 8×10 | 96 | 8×10 | 100 | | | | | | | | |
| 33 | 330 | | | | | | | | | | | 6.3×5.8 | 55 | ○ 8×6.2 | 95 (94) | 8×10 | 117 | 10×10 | 130 | | | | | | |
| 47 | 470 | | | | | | | | | | | 6.3×5.8 | 65 | ● 8×6.2 | 105 (94) | ○ 8×10 | 140 (105) | 8×10 | 140 | 10×10 | 155 | | | | |
| 100 | 101 | | | | | | | | | | | 6.3×5.8 | 70 | 8×6.2 | 125 | ○ 8×6.2 | 145 (143) | ○ 8×10 | 175 (132) | ■ 10×10 | 195 (181) | 10×10 | 232 | | |
| 150 | 151 | | | | | | | | | | | 6.3×5.8 | 85 | 6.3×7.7 | 151 | 8×10 | 192 | 8×10 | 214 | 10×10 | 238 | | | | |
| 220 | 221 | | | | | | | | | | | ● 8×6.2 | 160 (143) | ○ 8×6.2 | 175 (173) | ○ 8×10 | 215 (162) | ■ 10×10 | 250 (232) | ■ 10×10 | 265 (246) | 10×10 | 289 | | |
| 330 | 331 | 6.3×5.8 | 152 | ○ 8×6.2 | 190 (188) | 8×10 | 240 | 8×10 | 270 | ■ 10×10 | 305 (284) | 10×10 | 324 | | | | | | | | | | | | |
| 470 | 471 | 6.3×7.7 | 200 | 8×10 | 265 | 8×10 | 290 | ■ 10×10 | 330 (307) | 10×10 | 393 | | | | | | | | | | | | | | |
| 680 | 681 | 8×10 | 284 | 8×10 | 318 | 10×10 | 374 | 10×10 | 396 | | | | | | | | | | | | | | | | |
| 1000 | 102 | 8×10 | 344 | ■ 10×10 | 400 (372) | 10×10 | 454 | | | | | | | | | | | | | | | | | | |
| 1500 | 152 | 10×10 | 347 | 10×10 | 489 | | | | | | | | | | | | | | | | | | | | |

Size φ6.3 × 5.8 is available for capacitors marked. "●"

Size φ6.3 × 7.7 is available for capacitors marked. "○"

Size φ8 × 10 is available for capacitors marked. "■"

※ In this case, [6] will be put at 12th digit of type numbering system.

Rated ripple current (mA_{rms}) at 85°C 120Hz

● Frequency coefficient of rated ripple current

| Cap.(μF) | Frequency | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz or more |
|--------------|-----------|-------|--------|--------|-------|----------------|
| Less than 47 | | 0.80 | 1.00 | 1.15 | 1.40 | 1.67 |
| 100 to 1500 | | 0.85 | 1.00 | 1.08 | 1.20 | 1.30 |

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UG(p.114) series if high CV products are required.
- Please refer to page 3 for the minimum order quantity.



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- Поставка образцов и прототипов;
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- Защита от снятия компонента с производства.



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