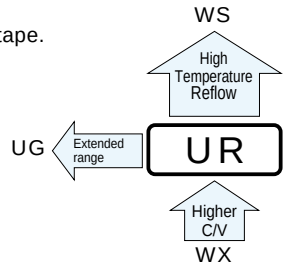
# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

## UR Chip Type, High CV series

For SMD | Smaller | Anti-Solvent Feature

- 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 |
|---|---|---|---|---|---|---|---|---|---|
| tan δ (MAX.) | 0.35 | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.12 |

Stability at Low Temperature — Measurement frequency: 120Hz

| Rated voltage (V) | | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| Impedance ratio ZT / Z20 (MAX.) | Z−25°C / Z+20°C | 7 | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 |
| | Z−40°C / Z+20°C | 15 | 10 | 8 | 6 | 4 | 3 | 3 | 3 | 3 |

Endurance — 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 |
| tan δ | 200% 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.

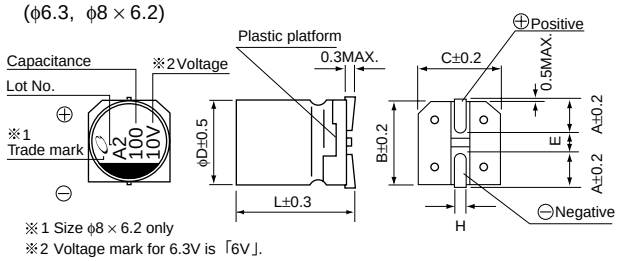
Resistance to soldering heat — The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.

| | |
|---|---|
| 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.

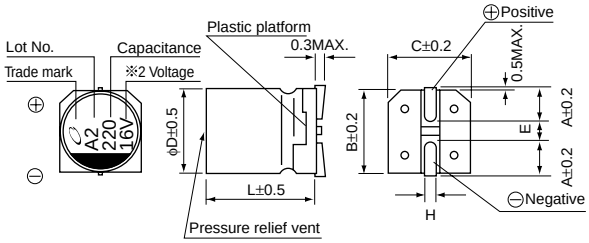
## ■Chip Type

(φ6.3, φ8 × 6.2)




※1 Size φ8 × 6.2 only
※2 Voltage mark for 6.3V is「6V」.

(φ8 × 10, φ10 × 10)




## Type numbering system (Example : 10V 100μF)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U | U | R | 1 | A | 1 | 0 | 1 | M | C | L | 1 | G | S |

- Package code
- Size code
- Configuration
- Capacitance tolerance (±20%)
- Rated capacitance (100μF)
- Rated voltage (10V)
- Series name
- Type

| φD × L | Code |
|---|---|
| 6.3 × 5.8 | CL |
| 6.3 × 7.7 | CL |
| 8 × 6.2 | CL |
| 8 × 10 | NL |
| 10 × 10 | NL |

(mm)

| 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 |

● Dimension table in next page.

# UR series

## ■Dimensions

| Cap.(μF) \ V / Code | 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 | | | | | | | | | | Case size φD × L (mm) | Rated ripple |
| **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 (mArms) 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.

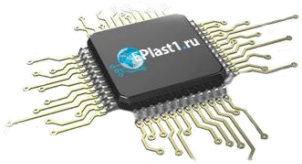
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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