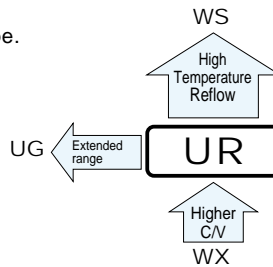


UR series Chip Type, High CV



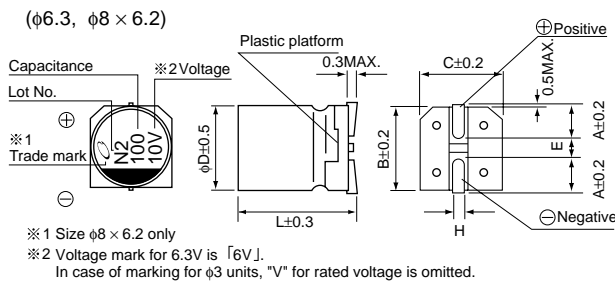
- Chip type, higher capacitance in larger case sizes.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



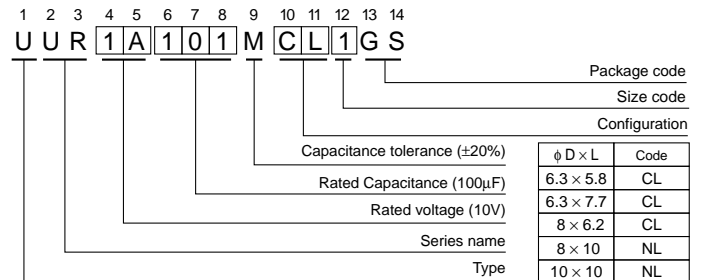
Specifications

| Item | Performance Characteristics | | | | | | | | | | |
|------------------------------|--|---|-----|----|----|--------------------|----|----|----|-----|---|
| Category Temperature Range | -40 ~ +85°C | | | | | | | | | | |
| Rated Voltage Range | 4 ~ 100V | | | | | | | | | | |
| Rated Capacitance Range | 3.3 ~ 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). | | | | | | | | | | |
| tan δ | Measurement frequency : 120Hz, Temperature : 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 | After 2000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right. | | | | | Capacitance change | | | | | Within ±20% of initial value |
| | | | | | | tan δ | | | | | 200% or less of initial specified value |
| Shelf Life | After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above. | | | | | Leakage current | | | | | Initial specified value or less |
| | | | | | | Capacitance change | | | | | Within ±10% of initial value |
| Resistance to soldering heat | The capacitors shall be kept on the hot plate maintained at 250°C, for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right. | | | | | tan δ | | | | | Initial specified value or less |
| | | | | | | Leakage current | | | | | Initial specified value or less |
| Marking | Black print on the case top. | | | | | | | | | | |

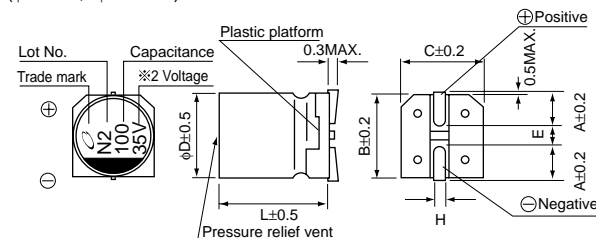
Chip Type



Type numbering system (Example : 10V 100μF)



(φ8 × 10, φ10 × 10)



| | (mm) | | | | |
|---------|-----------|-----------|-----------|-----------|-----------|
| φ D × 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 ~ 0.8 | 0.5 ~ 0.8 | 0.5 ~ 0.8 | 0.8 ~ 1.1 | 0.8 ~ 1.1 |

● Dimension table in next page.

UR series

■ Dimensions

| Cap.(F) | Code | V | | | | | | | | | | | | | | | | | | | | |
|---------|------|---------|-----|--------|-----------|---------|-----------|---------|-----------|--------|-----------|--------|-----------|---------|-----------|----------|---------|-----------|--------|---------|-------|-----|
| | | 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 $\phi 6.3 \times 5.8$ is available for capacitors marked. "●"

Size $\phi 6.3 \times 7.7$ is available for capacitors marked. "○"

Size $\phi 8 \times 10$ is available for capacitors marked. "■"

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

Rated Ripple (mArms) at 85°C 120Hz

● Frequency coefficient of rated ripple current

| Cap.(μ F) | Frequency | 50 Hz | 120 Hz | 300 Hz | 1 kHz | 10 kHz~ |
|----------------|-----------|-------|--------|--------|-------|---------|
| ~ 47 | | 0.80 | 1.00 | 1.15 | 1.40 | 1.67 |
| 100 ~ 1500 | | 0.85 | 1.00 | 1.08 | 1.20 | 1.30 |

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25, 26.
- Please select UG(p.75) series if high CV products are required.
- Please refer to page 3 for the minimum order quantity.