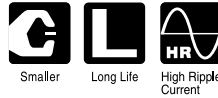
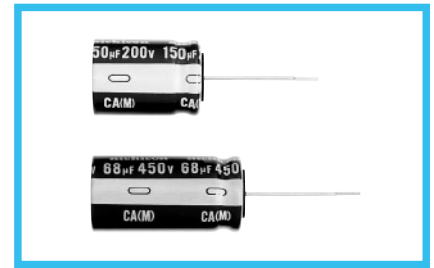
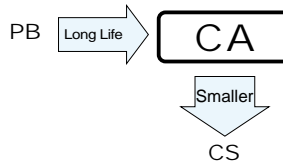


CA series

Miniature Sized, High Ripple Current, Long Life



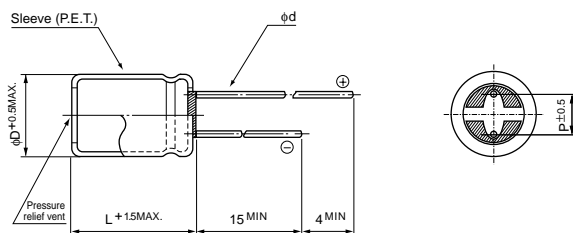
- High ripple current and Long Life product withstanding load life of 12000 hours(10000 hours for $\phi D=10$) at +105°C.
- Suited for ballast application.
- Compliant to the RoHS directive (2002/95/EC).



Specifications

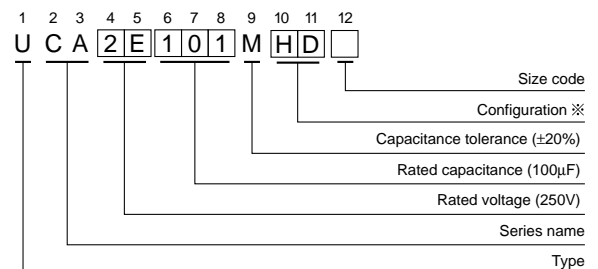
| Item | Performance Characteristics | | | | | | | |
|-------------------------------|--|------|------|------|------|--------------------|---|-----|
| Category Temperature Range | -25 to +105°C | | | | | | | |
| Rated Voltage Range | 160 to 450V | | | | | | | |
| Rated Capacitance Range | 6.8 to 220μF | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | |
| Leakage Current | After 1 minute's application of rated voltage, leakage current is not more than 0.04CV+100 (μA) | | | | | | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz, Temperature : 20°C | | | | | | | |
| | Rated voltage (V) | 160 | 200 | 250 | 350 | 400 | 450 | |
| | tan δ (MAX.) | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 | |
| Stability at Low Temperature | Measurement frequency : 120Hz | | | | | | | |
| | Rated voltage (V) | | 160 | 200 | 250 | 350 | 400 | 450 |
| | Impedance ratio ZT / Z20 (MAX.) Z-25°C / Z+20°C | | 3 | 3 | 3 | 6 | 6 | 6 |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 12000 hours (10000 hours for φD=10) at 105°C, the peak voltage shall not exceed the rated voltage. | | | | | 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 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. | | | | | | | |
| Marking | Printed with white color letter on dark brown sleeve. | | | | | | | |

Radial Lead Type



| | (mm) | | | |
|----|------|------|-----|-----|
| φD | 10 | 12.5 | 16 | 18 |
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| φd | 0.6 | 0.6 | 0.8 | 0.8 |

Type numbering system (Example : 250V 100µF)



※ Configuration

| φ D | Pb-free leadwire Pb-free PET sleeve |
|------------|--|
| 10 | PD |
| 12.5 to 18 | HD |

- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

- Dimension table in next page.

■ Dimensions

| Cap. (μ F) | V Code | 160 | | 200 | | 250 | | 350 | | 400 | | 450 | |
|--------------------|-----------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|--------------------------------|-----|
| | | 2C | | 2D | | 2E | | 2V | | 2G | | 2W | |
| 6.8 | 6R8 | | | | | | | 10 × 16 | 220 | 10 × 16 | 220 | 10 × 20 | 150 |
| 10 | 100 | 10 × 16 | 250 | 10 × 16 | 250 | 10 × 20 | 300 | 10 × 20 | 280 | 10 × 20 | 280 | 12.5 × 20 | 320 |
| 22 | 220 | 10 × 20 | 500 | 10 × 20 | 500 | 12.5 × 20 | 600 | 12.5 × 20 | 350 | 12.5 × 20 | 430 | 16 × 25 | 560 |
| | | ▲ 16 × 20 | 600 | ▲ 18 × 20 | 560 | | | | | | | | |
| 33 | 330 | 10 × 20 | 565 | 12.5 × 20 | 600 | 12.5 × 20 | 630 | 16 × 20 | 600 | 16 × 25 | 640 | 16 × 31.5 | 700 |
| | | ▲ 18 × 20 | 640 | ▲ 18 × 25 | 700 | | | | | | | | |
| 47 | 470 | 12.5 × 20 | 725 | 12.5 × 20 | 780 | 12.5 × 25 | 720 | 16 × 25 | 700 | 16 × 31.5 | 840 | 18 × 31.5 | 900 |
| | | ▲ 16 × 20 | 750 | ▲ 18 × 20 | 750 | ▲ 18 × 25 | 840 | | | | | | |
| 68 | 680 | 12.5 × 25 | 950 | 12.5 × 25 | 950 | 16 × 25 | 1000 | 16 × 31.5 | 1100 | 18 × 31.5 | 1000 | | |
| | | ▲ 16 × 20 | 970 | ▲ 16 × 20 | 970 | ▲ 18 × 20 | 920 | ▲ 18 × 25 | 875 | | | | |
| 100 | 101 | 16 × 25 | 1280 | 16 × 25 | 1280 | 16 × 31.5 | 1400 | | | | | | |
| | | ▲ 18 × 20 | 1180 | ▲ 18 × 20 | 1180 | ▲ 18 × 25 | 1345 | | | | | | |
| 150 | 151 | 16 × 31.5 | 1360 | 16 × 31.5 | 1360 | 18 × 31.5 | 1500 | | | | | | |
| | | ▲ 18 × 25 | 1360 | ▲ 18 × 25 | 1360 | | | | | | | | |
| 220 | 221 | 16 × 31.5 | 1400 | 18 × 31.5 | 1700 | | | | | | | Case size ϕ D × L (mm) | ※ |
| | | ▲ 18 × 25 | 1400 | | | | | | | | | | |

※ : Rated ripple current (mA rms) at 105°C 100kHz

▲ : In this case, 6 will be put at 12th digit of type numbering system.

● Frequency coefficient of rated ripple current

| Frequency | 50Hz | 120Hz | 1kHz | 10kHz | 100kHz or more |
|-------------|------|-------|------|-------|----------------|
| Coefficient | 0.40 | 0.50 | 0.80 | 0.90 | 1.00 |