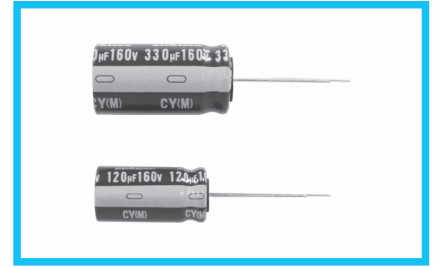
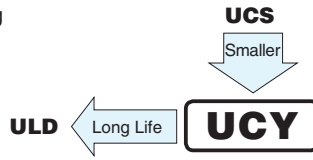


UCY Miniature Sized, High Ripple Current,
High Reliability



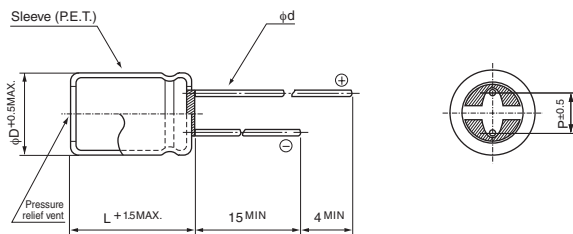
- High ripple current and Long Life product withstanding load life of 10000 to 12000 hours at +105°C.
- Suited for ballast application.
- Compliant to the RoHS directive (2011/65/EU).



Specifications

| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--------------------|--|-------|---|-----------------|---|------|-----|-----|---------------------------------|-----------------|------|------|------|------|------|------|------|--|-----------------|---|---|---|---|---|---|
| Category Temperature Range | -40 to +105°C (160 to 400V), -25 to +105°C (420 to 500V) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 160 to 500V | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | 6.8 to 680µF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.04CV+100 (µA) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tangent of loss angle (tan δ) | Measurement frequency : 120Hz at 20°C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>420</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>tan δ (MAX.)</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> <td>0.24</td> <td>0.24</td> <td>0.24</td> </tr> </tbody> </table> | Rated voltage (V) | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | tan δ (MAX.) | 0.20 | 0.20 | 0.20 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | | | | | | | | |
| Rated voltage (V) | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | | | | | | | | | | | | | | | | | | | |
| tan δ (MAX.) | 0.20 | 0.20 | 0.20 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | | | | | | | | | | | | | | | | | | | |
| Stability at Low Temperature | Measurement frequency : 120Hz | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>420</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>Impedance ratio ZT / Z20 (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>5</td> <td>5</td> <td>6</td> <td>6</td> </tr> <tr> <td></td> <td>Z-40°C / Z+20°C</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> <td>-</td> <td>-</td> </tr> </tbody> </table> | Rated voltage (V) | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | Impedance ratio ZT / Z20 (MAX.) | Z-25°C / Z+20°C | 3 | 3 | 3 | 5 | 5 | 6 | 6 | | Z-40°C / Z+20°C | 6 | 6 | 6 | 6 | 6 | - |
| Rated voltage (V) | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 | | | | | | | | | | | | | | | | | | | |
| Impedance ratio ZT / Z20 (MAX.) | Z-25°C / Z+20°C | 3 | 3 | 3 | 5 | 5 | 6 | 6 | | | | | | | | | | | | | | | | | | | |
| | Z-40°C / Z+20°C | 6 | 6 | 6 | 6 | 6 | - | - | | | | | | | | | | | | | | | | | | | |
| Endurance | <p>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 20L or less, 500V) at 105°C, the peak voltage shall not exceed the rated voltage.</p> <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </tbody> </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 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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

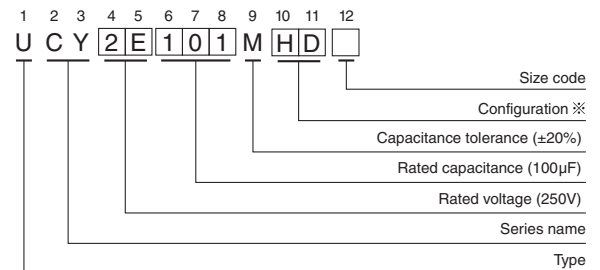


| | (mm) | | | |
|----|------|------------------|-----|-----|
| φD | 10 | 12.5 | 16 | 18 |
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| φd | 0.6 | 0.6 ^① | 0.8 | 0.8 |

※ In case L > 25 for the φ12.5 dia. unit, lead dia. φd = 0.8mm.

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

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

- Dimension table in next page.

UCY

■ Dimensions

| Cap | V | 160 | | 200 | | 250 | | 350 | | 400 | | 420 | | 450 | | 500 | |
|-----|-----|---------------|------|---------------|------|---------------|------|-------------|------|---------------|------|-------------|-----|-------------|-----|-------------|---------------|
| | | Code | 2C | 2D | 2E | 2V | 2G | W6 | 2W | 2H | | | | | | | |
| 6.8 | 6R8 | | | | | | | | | 10 × 16 | 140 | 10 × 16 | 105 | 10 × 16 | 105 | | |
| 10 | 100 | | | | | | | | | 10 × 16 | 150 | 10 × 20 | 135 | 10 × 20 | 135 | 12.5 × 20 | 160 |
| 12 | 120 | | | | | | | 10 × 16 | 160 | 10 × 20 | 175 | 10 × 20 | 150 | 10 × 20 | 150 | | |
| 15 | 150 | | | | | | | 10 × 20 | 180 | 10 × 20 | 180 | 10 × 25 | 185 | 10 × 25 | 185 | 12.5 × 25 | 220 |
| 18 | 180 | | | | | | | 10 × 20 | 215 | 10 × 25 | 235 | 10 × 31.5 | 215 | 10 × 31.5 | 215 | 12.5 × 31.5 | 240 |
| | | | | | | | | | | | | | | ▲ 12.5 × 20 | 255 | ● 16 × 20 | 240 |
| 22 | 220 | | | 10 × 16 | 225 | 10 × 16 | 225 | 10 × 25 | 255 | 10 × 31.5 | 275 | 12.5 × 20 | 285 | 12.5 × 25 | 300 | 12.5 × 35.5 | 280 |
| | | | | | | ○ 10 × 20 | 215 | ▲ 16 × 25 | 280 | | | | | | | | |
| | | | | | | ● 12.5 × 20 | 325 | ● 18 × 20 | 280 | | | | | | | | |
| 27 | 270 | | | 10 × 16 | 235 | 10 × 20 | 255 | 10 × 31.5 | 305 | 12.5 × 20 | 360 | 12.5 × 25 | 340 | 12.5 × 25 | 340 | 12.5 × 40 | 310 |
| | | | | | | ○ 10 × 25 | 255 | ▲ 16 × 25 | 310 | | | | | | | | |
| 33 | 330 | 10 × 16 | 260 | 10 × 20 | 305 | 10 × 20 | 305 | 12.5 × 20 | 380 | 12.5 × 25 | 385 | 12.5 × 31.5 | 400 | 12.5 × 31.5 | 400 | 16 × 31.5 | 350 |
| | | | | | | ● 12.5 × 20 | 400 | ● 16 × 20 | 450 | ● 16 × 20 | 450 | ● 16 × 20 | 385 | ● 16 × 20 | 385 | ● 18 × 25 | 350 |
| 39 | 390 | 10 × 16 | 295 | 10 × 20 | 325 | 10 × 25 | 345 | 12.5 × 25 | 455 | 12.5 × 31.5 | 465 | 12.5 × 31.5 | 430 | 12.5 × 35.5 | 460 | 16 × 35.5 | 380 |
| | | | | | | | | | | ○ 12.5 × 25 | 385 | | | ● 18 × 20 | 440 | | |
| 47 | 470 | 10 × 20 | 375 | 10 × 20 | 360 | 10 × 31.5 | 405 | 12.5 × 25 | 510 | 16 × 20 | 520 | 12.5 × 35.5 | 505 | 12.5 × 40 | 525 | 16 × 40 | 440 |
| | | | | ● 12.5 × 20 | 490 | ○ 10 × 25 | 345 | ● 16 × 20 | 540 | ▲ 12.5 × 31.5 | 510 | ▲ 16 × 25 | 500 | ▲ 16 × 25 | 500 | ▲ 18 × 31.5 | 440 |
| | | | | | | ● 12.5 × 20 | 490 | | | ● 18 × 20 | 590 | ● 18 × 20 | 480 | | | | |
| 56 | 560 | 10 × 20 | 380 | 10 × 25 | 415 | 12.5 × 20 | 515 | 12.5 × 31.5 | 590 | 12.5 × 35.5 | 630 | 12.5 × 40 | 570 | 16 × 31.5 | 585 | 18 × 35.5 | 480 |
| | | | | | | | | ▲ 16 × 20 | 565 | ▲ 16 × 25 | 585 | | | ● 18 × 25 | 560 | | |
| | | | | | | | | | | ● 18 × 20 | 600 | | | | | | |
| 68 | 680 | 10 × 25 | 455 | 10 × 31.5 | 485 | 12.5 × 25 | 615 | 12.5 × 35.5 | 695 | 12.5 × 40 | 720 | 16 × 31.5 | 645 | 16 × 35.5 | 660 | 18 × 40 | 525 |
| | | ● 12.5 × 20 | 590 | ● 12.5 × 20 | 650 | ● 16 × 20 | 650 | ● 16 × 25 | 700 | ○ 16 × 25 | 640 | ● 18 × 25 | 615 | | | | |
| | | | | | | | | ▲ 18 × 20 | 690 | ● 18 × 25 | 735 | | | | | | |
| 82 | 820 | 10 × 31.5 | 534 | 12.5 × 25 | 645 | 12.5 × 31.5 | 715 | 16 × 31.5 | 740 | 16 × 31.5 | 805 | 16 × 35.5 | 725 | 16 × 40 | 750 | | |
| | | ○ 10 × 25 | 455 | ○ 12.5 × 20 | 645 | ○ 12.5 × 25 | 615 | ▲ 12.5 × 40 | 785 | | | | | | | | |
| | | ● 12.5 × 20 | 640 | ● 16 × 20 | 690 | ● 16 × 20 | 690 | ○ 16 × 25 | 700 | ● 18 × 25 | 765 | ▲ 18 × 31.5 | 730 | ▲ 18 × 31.5 | 730 | | |
| 100 | 101 | 12.5 × 20 | 645 | 12.5 × 25 | 695 | 16 × 20 | 715 | 16 × 31.5 | 825 | 16 × 35.5 | 850 | 16 × 40 | 825 | 18 × 35.5 | 835 | | |
| | | | | ● 16 × 20 | 710 | ▲ 12.5 × 35.5 | 785 | ● 18 × 25 | 790 | ▲ 18 × 31.5 | 875 | ▲ 18 × 35.5 | 835 | | | | |
| | | | | | | | | | | | | | | | | | |
| 120 | 121 | | | 16 × 20 | 775 | 16 × 25 | 845 | 16 × 35.5 | 925 | 18 × 31.5 | 940 | 18 × 40 | 930 | 18 × 40 | 930 | | |
| | | 12.5 × 25 | 760 | ▲ 12.5 × 31.5 | 810 | ○ 12.5 × 35.5 | 785 | ▲ 18 × 31.5 | 940 | ▲ 16 × 40 | 950 | ▲ 18 × 46 | 945 | ▲ 18 × 46 | 945 | | |
| | | | | | | ● 12.5 × 40 | 890 | | | ● 18 × 35.5 | 960 | | | | | | |
| 150 | 151 | 12.5 × 31.5 | 905 | 12.5 × 35.5 | 965 | 18 × 25 | 970 | 18 × 35.5 | 1080 | | | | | | | | |
| | | ○ 12.5 × 25 | 760 | ● 16 × 25 | 945 | ▲ 12.5 × 40 | 990 | ▲ 16 × 40 | 1000 | 18 × 40 | 1030 | | | | | | |
| | | ● 16 × 20 | 945 | ▲ 18 × 20 | 910 | | | | | | | | | | | | |
| 180 | 181 | 16 × 20 | 1000 | 12.5 × 40 | 1090 | 16 × 31.5 | 1110 | | | | | | | | | | |
| | | ○ 12.5 × 31.5 | 905 | ▲ 16 × 25 | 1035 | ▲ 18 × 25 | 1050 | 18 × 40 | 1205 | 18 × 46 | 1110 | | | | | | |
| | | ▲ 12.5 × 35.5 | 1050 | ● 18 × 20 | 910 | | | | | | | | | | | | |
| 220 | 221 | 12.5 × 40 | 1200 | 16 × 31.5 | 1230 | 16 × 40 | 1295 | | | | | | | | | | |
| | | ○ 12.5 × 35.5 | 1050 | ▲ 12.5 × 40 | 1090 | ○ 16 × 35.5 | 1220 | 18 × 46 | 1300 | | | | | | | | |
| | | ● 16 × 25 | 1185 | ● 18 × 25 | 1185 | ● 18 × 31.5 | 1160 | | | | | | | | | | |
| 270 | 271 | 18 × 25 | 1235 | 16 × 35.5 | 1400 | 18 × 35.5 | 1450 | | | | | | | | | | |
| | | ▲ 12.5 × 40 | 1300 | ▲ 18 × 31.5 | 1410 | ▲ 16 × 40 | 1350 | | | | | | | | | | |
| 330 | 331 | 16 × 31.5 | 1510 | 16 × 40 | 1595 | 18 × 46 | 1600 | | | | | | | | | | |
| | | ▲ 18 × 25 | 1445 | ▲ 18 × 31.5 | 1560 | ○ 18 × 40 | 1530 | | | | | | | | | | |
| 390 | 391 | 16 × 40 | 1730 | 18 × 40 | 1780 | | | | | | | | | | | | |
| | | ○ 16 × 35.5 | 1510 | ○ 18 × 35.5 | 1690 | | | | | | | | | | | | |
| | | ▲ 18 × 31.5 | 1695 | | | | | | | | | | | | | | |
| 470 | 471 | 18 × 35.5 | 1920 | 18 × 40 | 1850 | | | | | | | | | | | | |
| | | ▲ 16 × 40 | 1730 | ▲ 18 × 46 | 1900 | | | | | | | | | | | | |
| 560 | 561 | 18 × 40 | 2130 | | | | | | | | | | | | | | Case size |
| 680 | 681 | 18 × 46 | 2300 | | | | | | | | | | | | | | φD × L (mm) ※ |

● Frequency coefficient of rated ripple current

| Frequency | 50Hz | 120Hz | 1kHz | 10kHz | 100kHz or more |
|-------------|------|-------|------|-------|----------------|
| Coefficient | 0.80 | 1.00 | 1.60 | 1.80 | 2.00 |

※ : Rated ripple current (mArms) at 105°C 120Hz

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

● : In this case, 3 will be put at 12th digit of type numbering system.

○ : In this case, 9 will be put at 12th digit of type numbering system.