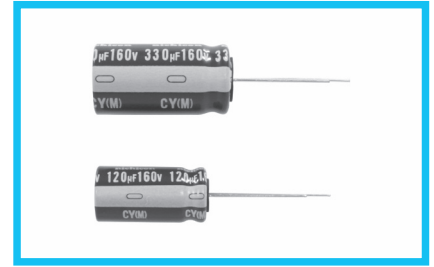
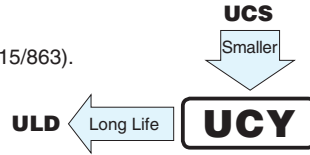


**UCY** Miniature Sized, High Ripple Current,  
High Reliability



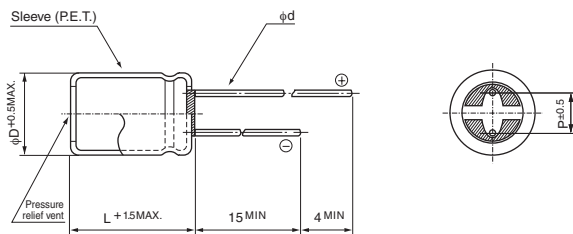
- High ripple current and Long Life product withstanding load life of 10000 to 12000 hours at +105°C.
- Suited for power supply and ballast application.
- Compliant to the RoHS directive (2011/65/EU, (EU) 2015/863).
- AEC-Q200 compliant. Please contact us for details.



## 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"> <tr> <td>Rated voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> </tr> <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> </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"> <tr> <td rowspan="2">Impedance ratio (MAX.)</td> <td>Rated voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> </tr> <tr> <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> <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> <td>-</td> </tr> </table>  | Impedance ratio (MAX.) | Rated voltage (V)                            | 160   | 200   | 250             | 350   | 400  | 420 | 450 | 500          | Z-25°C / Z+20°C | 3    | 3    | 3    | 5    | 5    | 6    | 6    | 6 |  | Z-40°C / Z+20°C | 6 | 6 | 6 | 6 | 6 | - | - |
| Impedance ratio (MAX.)        | Rated voltage (V)  |                        | 160  | 200   | 250   | 350             | 400   | 420  | 450 | 500 |              |                 |      |      |      |      |      |      |      |   |  |                 |   |   |   |   |   |   |   |
|                               | Z-25°C / Z+20°C  | 3                      | 3  | 3     | 5   | 5               | 6   | 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"> <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> </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

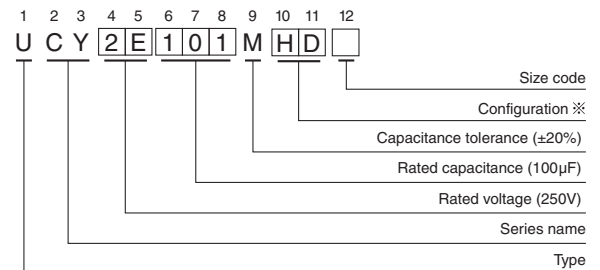


|    | (mm) |                  |     |     |
|----|------|------------------|-----|-----|
| φD | 10   | 12.5             | 16  | 18  |
| P  | 5.0  | 5.0              | 7.5 | 7.5 |
| φd | 0.6  | 0.6 <sup>※</sup> | 0.8 | 0.8 |

※ 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<br>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.(μF) | Code | V             |      | 160           |         | 200           |         | 250         |             | 350           |             | 400           |           | 420         |           | 450         |           | 500         |                            |
|----------|------|---------------|------|---------------|---------|---------------|---------|-------------|-------------|---------------|-------------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|----------------------------|
|          |      | 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                  |
| 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     | 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                  |
| 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       | 12.5 × 35.5 | 440       | 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         | 12.5 × 31.5   | 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         | ▲ 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 × 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           | ▲ 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       | 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       | 16 × 40     | 750       |             |                            |
|          |      | ○ 10 × 25     | 455  | ○ 12.5 × 20   | 645     | ○ 12.5 × 25   | 615     | ▲ 12.5 × 40 | 785         | ○ 16 × 25     | 700         | ● 18 × 25     | 765       | ▲ 18 × 31.5 | 730       | ▲ 18 × 31.5 | 730       |             |                            |
|          |      | ● 12.5 × 20   | 640  | ● 16 × 20     | 690     | ● 16 × 20     | 690     | ● 18 × 25   | 765         |               |             |               |           |             |           |             |           |             |                            |
| 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       | 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       | 18 × 40     | 930       |             |                            |
|          |      | 12.5 × 25     | 760  | ▲ 12.5 × 31.5 | 810     | ○ 12.5 × 35.5 | 785     | ● 12.5 × 40 | 890         | ▲ 18 × 31.5   | 940         | ▲ 16 × 40     | 950       | ▲ 18 × 46   | 945       | ▲ 18 × 46   | 945       |             |                            |
|          |      |               |      |               |         |               |         | ▲ 18 × 20   | 815         | ● 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    |               |         |             |             |               |             |               |           |             |           |             |           |             |                            |
| 470      | 471  | 18 × 35.5     | 1920 | 18 × 40       | 1850    |               |         |             |             |               |             |               |           |             |           |             |           |             |                            |
|          |      | ▲ 16 × 40     | 1730 | ▲ 18 × 46     | 1900    |               |         |             |             |               |             |               |           |             |           |             |           |             |                            |
| 560      | 561  | 18 × 40       | 2130 |               |         |               |         |             |             |               |             |               |           |             |           |             |           |             |                            |
| 680      | 681  | 18 × 46       | 2300 |               |         |               |         |             |             |               |             |               |           |             |           |             |           |             | Case size<br>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.