

# CD11GE Series 105°C Long Life (长寿命)

## STANDARD RATINGS

| Voltage (V) | 160       |                | 200       |                | 250       |                | 350       |                |
|-------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
|             | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 4.7         |           |                |           |                |           |                | 10×14     | 69             |
| 5.6         |           |                |           |                |           |                | 10×14     | 81             |
| 6.8         |           |                |           |                | 10×16     | 98             | 10×16     | 112            |
| 8.2         |           |                | 10×16     | 99             | 10×16     | 108            | 10×16     | 123            |
| 10          | 10×16     | 101            | 10×16     | 109            | 10×16     | 128            | 10×20     | 142            |
| 15          | 10×20     | 118            | 10×16     | 128            | 10×20     | 131            | 10×20     | 168            |
| 22          | 10×20     | 186            | 10×20     | 198            | 10×20     | 201            | 12×20     | 224            |
| 33          | 10×20     | 296            | 10×20     | 302            | 12×20     | 313            | 13×25     | 338            |
| 47          | 10×20     | 312            | 12×20     | 348            | 12×20     | 379            | 16×20     | 402            |
| 68          | 12×20     | 461            | 12×25     | 487            | 16×20     | 501            | 16×25     | 521            |
| 100         | 13×25     | 606            | 16×20     | 612            | 16×25     | 668            |           |                |
| 150         | 16×25     | 801            | 16×25     | 877            | 18×25     | 906            |           |                |

Maximum Allowable Ripple Current (mA rms) at 105°C 120HZ

Case Size ΦD×L(mm)

| Voltage (V) | 400       |                | 450       |                |  |  |  |  |
|-------------|-----------|----------------|-----------|----------------|--|--|--|--|
|             | Case Size | Ripple Current | Case Size | Ripple Current |  |  |  |  |
| 1           | 8×12      | 29             | 8×12      | 29             |  |  |  |  |
| 1.5         | 8×12      | 32             | 8×12      | 32             |  |  |  |  |
| 1.8         | 8×12      | 33             | 8×12      | 33             |  |  |  |  |
| 2.2         | 8×12      | 42             | 8×16      | 43             |  |  |  |  |
| 2.8         | 8×16      | 45             | 8×16      | 46             |  |  |  |  |
| 3.3         | 10×16     | 77             | 10×16     | 79             |  |  |  |  |
| 4.7         | 10×16     | 92             | 10×20     | 101            |  |  |  |  |
| 5.6         | 10×16     | 102            | 10×20     | 113            |  |  |  |  |
| 6.8         | 10×20     | 129            | 12×20     | 134            |  |  |  |  |
| 8.2         | 10×20     | 134            | 12×20     | 143            |  |  |  |  |
| 10          | 12×20     | 161            | 13×20     | 188            |  |  |  |  |
| 15          | 12×20     | 224            | 13×25     | 225            |  |  |  |  |
| 22          | 16×25     | 298            | 16×25     | 301            |  |  |  |  |
| 33          | 16×25     | 379            |           |                |  |  |  |  |
| 47          | 16×30     | 493            |           |                |  |  |  |  |
| 68          | 18×30     | 665            |           |                |  |  |  |  |

Maximum Allowable Ripple Current (mA rms) at 105°C 120HZ

Case Size ΦD×L(mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.

# CD11GE Series 105°C Long Life (长寿命)

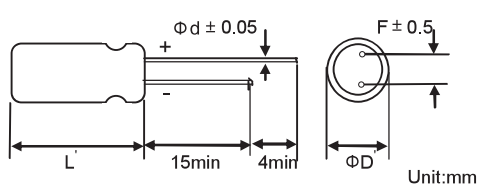
- Long Life, 8000~10000 hours at 105°C (U<sub>R</sub>, I<sub>R</sub> applied)
- For electronic ballast, power supply
- RoHS Compliant



## SPECIFICATIONS AND CHARACTERISTICS IN BRIEF

| Item   | Performance Characteristics   |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
|--|---|--|---|-----------|-----------|-------------|----------|-------|---------------------------|------|-----------|----------------|--------------------------|-------------|----------|--|--|--|
| Standard   | IEC 60384-4   |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Temperature Range  | -40°C to +105°C (Operating)    -55°C to +110°C (Storage)  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Rated Working Voltage Range U <sub>R</sub>                       | 160V to 450V  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Surge voltage U <sub>s</sub>                                     | 1.10 x U <sub>R</sub>   |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Nominal Capacitance Range  | 1μF to 150μF  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Capacitance Tolerance  | ±20%(120HZ, +20°C)  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Leakage Current I <sub>L</sub>                                   | = 0.02x C <sub>R</sub> x U <sub>R</sub> (μA)<br>is the smaller. Note, C <sub>R</sub> is in μF.  | Test Condition:<br>U <sub>R</sub> , 5mins., 20°C |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Characteristics at low Temperature                               | Max. impedance ratio at 120 Hz  | U <sub>R</sub><br>Z -25 °C / Z 20 °C             | <table border="1"> <tr> <td>160V~250V</td> <td>350V~450V</td> </tr> <tr> <td>3</td> <td>6</td> </tr> </table> | 160V~250V | 350V~450V | 3           | 6        |       |                           |      |           |                |                          |             |          |  |  |  |
| 160V~250V  | 350V~450V   |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| 3  | 6   |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| tan δ  | Working Voltage(V)  | 160~450  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
|  | tan δ(max) (120HZ, +20°C)   | 8  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Operational life time<br>+105°C, U <sub>R</sub> , I <sub>R</sub> | Can Diameter(mm)  | End of Life Requirement:                         |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
|  | <table border="1"> <tr> <td>8,10</td> <td>8000 hrs</td> <td>ΔC/C</td> <td>≤ ±20%</td> </tr> <tr> <td>12,13,16,18</td> <td>10000hrs</td> <td>tan δ</td> <td>≤ 2 x initial tan δ value</td> </tr> <tr> <td>8,10</td> <td>15000 hrs</td> <td>I<sub>L</sub></td> <td>≤ initial specified limi</td> </tr> <tr> <td>12,13,16,18</td> <td>16000hrs</td> <td></td> <td></td> </tr> </table> | 8,10   | 8000 hrs  | ΔC/C      | ≤ ±20%    | 12,13,16,18 | 10000hrs | tan δ | ≤ 2 x initial tan δ value | 8,10 | 15000 hrs | I <sub>L</sub> | ≤ initial specified limi | 12,13,16,18 | 16000hrs |  |  |  |
| 8,10   | 8000 hrs  | ΔC/C   | ≤ ±20%  |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| 12,13,16,18  | 10000hrs  | tan δ  | ≤ 2 x initial tan δ value   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| 8,10   | 15000 hrs   | I <sub>L</sub>                                   | ≤ initial specified limi  |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| 12,13,16,18  | 16000hrs  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Shelf Life<br>+105°C   | After leaving capacitors under no load at 105°C for 1000 hours,<br>Capacitors shall meet specified value for load life characteristics listed above.  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |
| Others   | If the capacitors are stored more than 1 year, the leakage current may increase. Please apply voltage through about 1 kΩ resistor, if necessary.  |  |   |           |           |             |          |       |                           |      |           |                |                          |             |          |  |  |  |

## SPECIFICATIONS



| ΦD  | 8      | 10  | 12  | 13    | 16  | 18     | 22   |
|-----|--------|-----|-----|-------|-----|--------|------|
| F   | 3.5    | 5.0 | 5.0 | 5.0   | 7.5 | 7.5    | 10.5 |
| Φd  | 0.5    | 0.6 | 0.6 | 0.6   | 0.8 | 0.8    | 0.8  |
| L'  | L+1.5  |     |     | L+2.0 |     |        |      |
| ΦD' | ΦD+0.5 |     |     |       |     | ΦD+1.0 |      |

## RIPPLE CURRENT MULTIPLIER

| Freq(HZ)    | 120  | 1K   | 10K  | 100K |
|-------------|------|------|------|------|
| Coefficient | 1.00 | 1.55 | 1.80 | 2.00 |