

GN

(CD92)

- ① Low voltage (100V), large capacitance, lug or screw type, low dissipation factor, Low leakage current, small size and high ripple current.

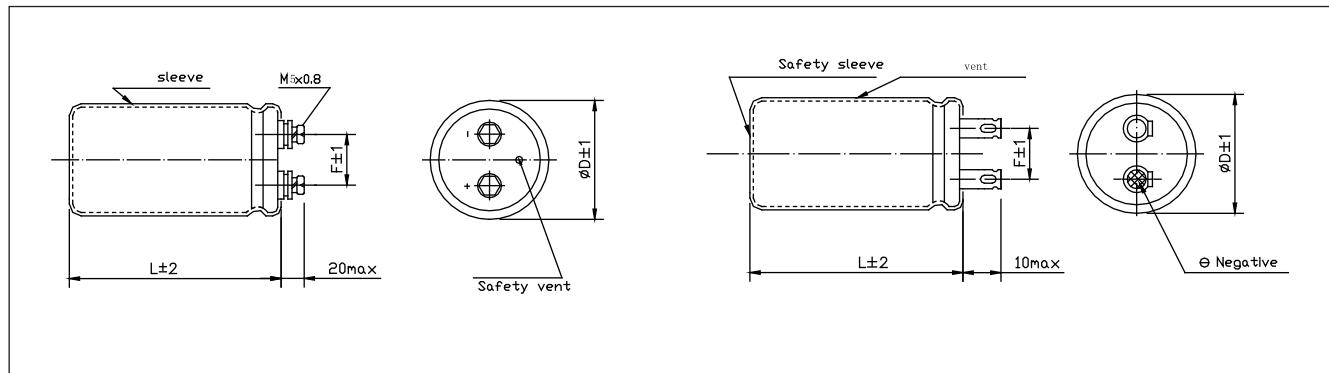
- ② Adapted to the ROHS directive (2002/95/EC).



Specifications

| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|------|---------|------|------|-------------------------|----|----|----|---------|----|-----|----|------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|----|------|------|------|------|------|------|
| Operating temperature range | -40°C ~ +85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated voltage range | 10 ~ 100 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal capacitance range | 2200 ~ 1000000 μF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance tolerance | ±20% (120Hz, +20°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current | D = 35mm I ≤ 0.02CV(μA) 4mA 2 (at 20°C, after 2 minutes, Whichever is smaller) | D ≥ 51mm I ≤ 0.03CV (μA) 6mA (at 20°C, after 2 minutes, Whichever is smaller) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (tg δ) Dissipation factor (+20°C, 120HZ) | <table border="1"> <thead> <tr> <th>$tg \delta$ $U_R(V)$</th> <th>10</th> <th>16</th> <th>25</th> <th>35 ~ 63</th> <th>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>0.75</td> <td>0.50</td> <td>0.35</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> </tr> <tr> <td>51</td> <td>1.00</td> <td>0.75</td> <td>0.50</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> </tr> <tr> <td>63.5</td> <td>1.50</td> <td>1.00</td> <td>0.75</td> <td>0.50</td> <td>0.35</td> <td>0.35</td> </tr> <tr> <td>76</td> <td>2.00</td> <td>1.50</td> <td>0.75</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> </tr> </tbody> </table> | | | | | | $tg \delta$ $U_R(V)$ | 10 | 16 | 25 | 35 ~ 63 | 80 | 100 | 35 | 0.75 | 0.50 | 0.35 | 0.25 | 0.25 | 0.25 | 51 | 1.00 | 0.75 | 0.50 | 0.35 | 0.30 | 0.25 | 63.5 | 1.50 | 1.00 | 0.75 | 0.50 | 0.35 | 0.35 | 76 | 2.00 | 1.50 | 0.75 | 0.50 | 0.40 | 0.35 |
| $tg \delta$ $U_R(V)$ | 10 | 16 | 25 | 35 ~ 63 | 80 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | 0.75 | 0.50 | 0.35 | 0.25 | 0.25 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | 1.00 | 0.75 | 0.50 | 0.35 | 0.30 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63.5 | 1.50 | 1.00 | 0.75 | 0.50 | 0.35 | 0.35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 | 2.00 | 1.50 | 0.75 | 0.50 | 0.40 | 0.35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Load life | <p>After applying rated voltage with specified ripple current for 2000 hours at +85°C and then resumed 16 hours:</p> <p>Capacitance change : ±15% Initial measured value</p> <p>Leakage current : ≤ Initial specified value</p> <p>Dissipation factor : ≤ 2 times Initial specified value</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf life | <p>After storage for 1000 hours at +85°C and then resumed 16 hours</p> <p>Capacitance change : ±15% Initial measured value</p> <p>Leakage current : ≤ 2 Initial specified value</p> <p>Dissipation factor : ≤ 2 times Initial specified value</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Case size table



| | | | | | |
|--------------|----------------------|--------------|---------------|---------------|-----|
| $D \pm 1.5$ | 35 | 51 | 63.5 | 76 | 89 |
| $L_o^{+3.0}$ | 50, 60, 80, 100, 120 | 80, 100, 120 | 100, 120, 140 | 100, 120, 140 | 140 |
| $F \pm 1.0$ | 12 | 22 | 28 | 32 | 32 |

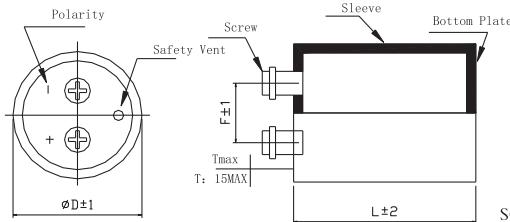
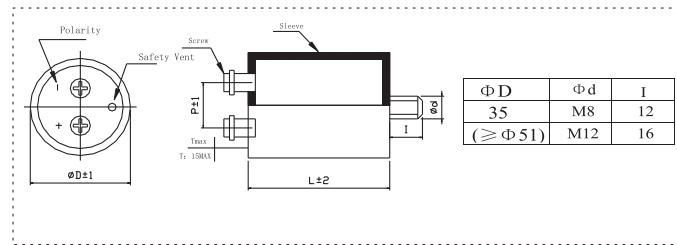
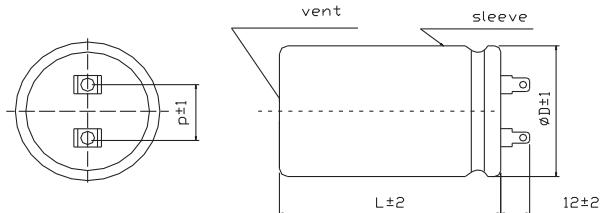
Dimensions

| $C_R(\mu F)$ | U_R | 6.3V | | 10V | | 16V | | 25V | | 35V | | 50V | |
|--------------|-------|--------------|-----|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| | | 0J | | 1A | | | | | | | | | |
| | | $D \times L$ | (A) | $D \times L$ | (A) | $D \times L$ | (A) | $D \times L$ | (A) | $D \times L$ | (A) | $D \times L$ | (A) |
| 2200 | 222 | | | | | | | | | | | | |
| 3300 | 332 | | | | | | | | | | | | |
| 4700 | 472 | | | | | | | | | | | | |
| 6800 | 682 | | | | | | | | | | | 35x50 | 3.6 |
| 10000 | 103 | | | | | | | | | 35x50 | 4.3 | 35x60 | 4.7 |
| 15000 | 153 | | | | | | | 35x50 | 4.4 | 35x80 | 6.2 | 35x80 | 6.2 |
| 22000 | 223 | | | | | 35x50 | 4.5 | 35x80 | 6.3 | 35x100 | 8.0 | 51x80 | 7.3 |
| 33000 | 333 | | | 35x50 | 4.2 | 35x80 | 6.4 | 35x100 | 8.3 | 51x80 | 9.0 | 51x80 | 9.0 |
| 47000 | 473 | | | 35x80 | 6.2 | 35x100 | 8.2 | 51x80 | 8.9 | 51x100 | 11.5 | 51x100 | 11.5 |
| 68000 | 683 | | | 35x100 | 8.0 | 35x120 | 10.5 | 51x80 | 10.8 | 51x120 | 14.6 | 63.5x100 | 12.7 |
| 100000 | 104 | | | 35x120 | 10.4 | 51x80 | 10.7 | 51x120 | 14.8 | 63.5x100 | 15.4 | 76x100 | 16.6 |
| 150000 | 154 | | | 51x80 | 11.3 | 51x120 | 14.8 | 63.5x120 | 16.2 | 76x120 | 21.4 | | |
| 220000 | 224 | | | 51x120 | 15.5 | 63.5x120 | 17.0 | 76x120 | 21.2 | | | | |
| 330000 | 334 | | | 63.5x120 | 17.0 | 76x120 | 14.8 | | | | | | |
| 470000 | 474 | | | 76x120 | 21.9 | | | | | | | | |
| 1000000 | 105 | 63.5x140 | 40 | 63.5x140 | 35 | 76x140 | 30 | 89x140 | 28 | | | | |

| $C_R(\mu F)$ | U_R | 63V | | 80V | | 100V | |
|--------------|-------|--------------|------|--------------|------|--------------|------|
| | | 1J | | 1K | | 2A | |
| | | $D \times L$ | (A) | $D \times L$ | (A) | $D \times L$ | (A) |
| 2200 | 222 | | | | | 35x50 | 2.1 |
| 3300 | 332 | | | | | 35x80 | 3.0 |
| 4700 | 472 | 35x50 | 3.0 | 35x80 | 3.4 | 35x100 | 3.9 |
| 6800 | 682 | 35x60 | 3.9 | 35x80 | 4.3 | 35x120 | 4.9 |
| 10000 | 103 | 35x80 | 5.1 | 35x100 | 4.2 | 51x80 | 6.0 |
| | | | | 51x80 | 6.0 | | |
| 15000 | 153 | 51x80 | 6.7 | 51x100 | 7.0 | 51x120 | 8.3 |
| 22000 | 223 | 51x80 | 7.4 | 63.5x100 | 7.8 | 63.5x120 | 9.1 |
| 33000 | 333 | 51x100 | 9.7 | 76x100 | 10.5 | 76x120 | 12.0 |
| 47000 | 473 | 63.5x100 | 10.5 | 76x120 | 13.5 | | |
| 1000000 | 105 | 63.5x120 | 13.4 | | | | |

Maximum Allowable Ripple Current (A rms) at 85°C 120Hz

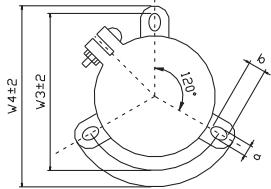
■ ALUMINUM ELECTROLYTIC CAPACITORS



SCREW

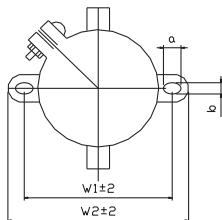
| Case code | Φ D | L | P | I type bracket | | Y type bracket | |
|-----------|------|-----|------|----------------|---------|----------------|-------|
| | | | | W1 | W2 | W3 | W4 |
| A5 | 35 | 50 | 12.7 | 48.0 | 58.0 | | |
| A6 | 35 | 65 | 12.7 | 48.0 | 58.0 | | |
| A8 | 35 | 80 | 12.7 | 48.0 | 58.0 | | |
| A10 | 35 | 100 | 12.7 | 48.0 | 58.0 | | |
| A12 | 35 | 120 | 12.7 | 48.0 | 58.0 | | |
| C8 | 51 | 80 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C10 | 51 | 100 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C11 | 51 | 110 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C12 | 51 | 120 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| D10 | 63.5 | 100 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D11 | 63.5 | 105 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D12 | 63.5 | 120 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D15 | 63.5 | 145 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| E10 | 76 | 100 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E12 | 76 | 120 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E15 | 76 | 145 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E16 | 76 | 160 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| F15 | 89 | 145 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| F16 | 89 | 160 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| C7R | 51 | 65 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C8R | 51 | 75 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C10R | 51 | 95 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C12R | 51 | 115 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| C13R | 51 | 130 | 22.0 | (68.0) | (80.0) | 63.5 | 73.0 |
| D10R | 63.5 | 95 | 22.0 | (81.0) | (93.0) | 76.2 | 85.1 |
| D12R | 63.5 | 115 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D13R | 63.5 | 130 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D16R | 63.5 | 155 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| D20R | 63.5 | 195 | 28.6 | (81.0) | (93.0) | 76.2 | 85.1 |
| E10R | 76 | 95 | 28.6 | (93.5) | (106.0) | 88.9 | 98.4 |
| E12R | 76 | 115 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E13R | 76 | 130 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E16R | 76 | 155 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E17R | 76 | 170 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| E20R | 76 | 195 | 32.0 | (93.5) | (106.0) | 88.9 | 98.4 |
| F13R | 89 | 130 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| F16R | 89 | 155 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| F17R | 89 | 170 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| F20R | 89 | 195 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| F24R | 89 | 235 | 32.0 | (108.0) | (120.5) | 101.6 | 111.1 |
| G18R | 101 | 175 | 41.5 | (32) | | 115 | 127 |
| G20R | 101 | 195 | 41.5 | (32) | | 115 | 127 |
| G24R | 101 | 235 | 41.5 | (32) | | 115 | 127 |

1 Type
(ΦD=36)



Y Type
(ΦD=51-101)

| Φ D | a | b |
|-------|---|-----|
| 51-89 | 7 | 4.5 |
| 101 | 8 | 4.5 |



1 Type
(ΦD=51-101)

| Φ D | a | b |
|-------|---|-----|
| 51-76 | 6 | 4.5 |
| 101 | 7 | 5 |

Hexagon-head bolt
Case code(A to F): M5×10
Case code(G:) M6×12(P=32.0)
M8×16(P=41.5)