

SEV SERIES
85°C, Lead Free Reflow Soldering.
◆FEATURES

- Case Dia $\phi 3 \sim \phi 18$ mm
- Lead free reflow soldering is available.
- Available for high density mounting.
- RoHS compliance.


◆SPECIFICATIONS

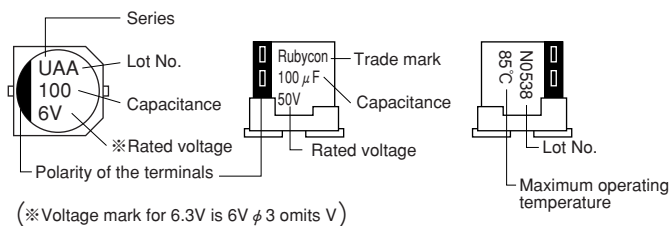
| Items | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|-----------------------------------|--------------------|--|-----------------|------------------------------------|------|------|----|-----|------------------|------|------|---|------|------|------|------|---|---|---------------------------------------|------|------|------|------|------|------|------|---|---|--|------|------|------|------|------|------|------|------|------|
| Category Temperature Range | -40~+85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 4~100V.DC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | I=0.01CV or 3 μ A whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μ A) C=Rated Capacitance(μ F) V=Rated Voltage(V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) (tan δ) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>$\phi 3$</td> <td>0.40</td> <td>0.30</td> <td>—</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> <td>—</td> <td>—</td> </tr> <tr> <td>$\phi 4, \phi 5, \phi 6.3 \times 5.5$</td> <td>0.40</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.13</td> <td>0.12</td> <td>—</td> <td>—</td> </tr> <tr> <td>$\phi 6.3 \times 8, \phi 8 \sim \phi 18$</td> <td>0.50</td> <td>0.35</td> <td>0.26</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table> <p>(20°C, 120Hz)</p> <p>When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.</p> | Rated Voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | $\phi 3$ | 0.40 | 0.30 | — | 0.20 | 0.16 | 0.14 | 0.14 | — | — | $\phi 4, \phi 5, \phi 6.3 \times 5.5$ | 0.40 | 0.26 | 0.22 | 0.18 | 0.16 | 0.13 | 0.12 | — | — | $\phi 6.3 \times 8, \phi 8 \sim \phi 18$ | 0.50 | 0.35 | 0.26 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.10 |
| Rated Voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\phi 3$ | 0.40 | 0.30 | — | 0.20 | 0.16 | 0.14 | 0.14 | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\phi 4, \phi 5, \phi 6.3 \times 5.5$ | 0.40 | 0.26 | 0.22 | 0.18 | 0.16 | 0.13 | 0.12 | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\phi 6.3 \times 8, \phi 8 \sim \phi 18$ | 0.50 | 0.35 | 0.26 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for 2000 hrs at 85°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±25% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> | Capacitance Change | Within ±25% of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Change | Within ±25% of the initial value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>5</td> <td>5</td> </tr> </tbody> </table> <p>(120Hz)</p> | Rated Voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | Z(-25°C)/Z(20°C) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | Z(-40°C)/Z(20°C) | 15 | 8 | 8 | 4 | 4 | 3 | 3 | 5 | 5 | | | | | | | | | | |
| Rated Voltage (V) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 15 | 8 | 8 | 4 | 4 | 3 | 3 | 5 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

| Frequency (Hz) | 60 (50) | 120 | 500 | 1k | 10k \leq |
|--------------------|---------|------|------|------|------------|
| 0.1~1 μ F | 0.50 | 1.00 | 1.20 | 1.30 | 1.50 |
| 2.2~4.7 μ F | 0.65 | 1.00 | 1.20 | 1.30 | 1.50 |
| 10~47 μ F | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| 100~1000 μ F | 0.80 | 1.00 | 1.10 | 1.15 | 1.20 |
| 2200~10000 μ F | 0.80 | 1.00 | 1.05 | 1.10 | 1.15 |

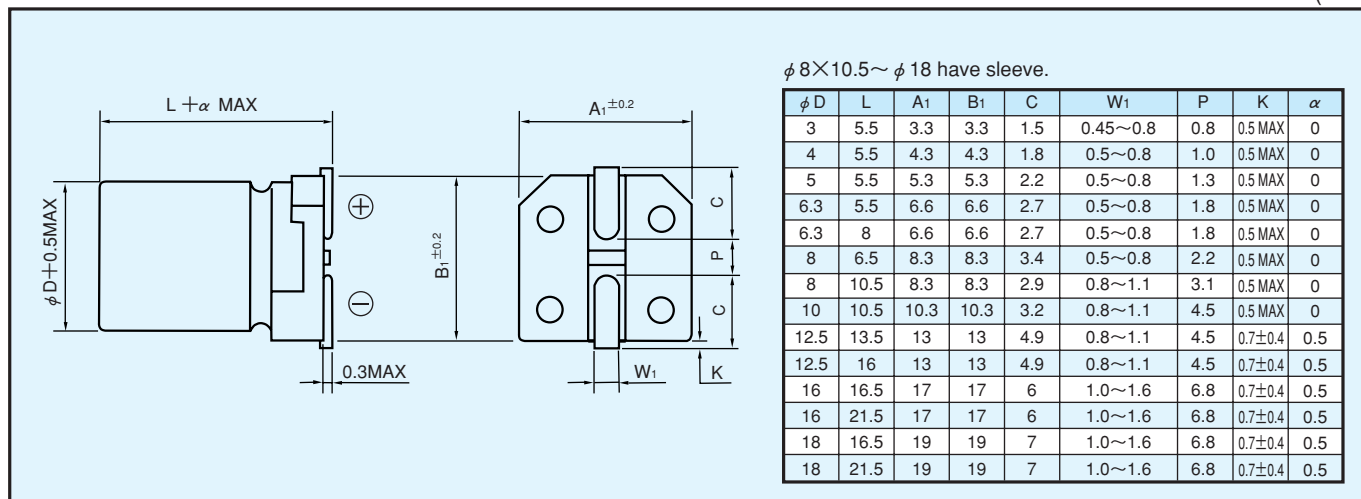
◆MARKING

 〈 $\phi 3 \sim \phi 6.3, \phi 8 \times 6.5$ 〉 〈 $\phi 8 \times 10.5, \phi 10 \sim \phi 18$ 〉

◆PART NUMBER

| | | | | | |
|---------------|--------|-------------------|-----------------------|--------|-----------|
| □□□ | SEV | □□□□□ | □ | □□□ | DXL |
| Rated Voltage | Series | Rated Capacitance | Capacitance Tolerance | Option | Case Size |

◆ DIMENSIONS

(mm)



◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size $\phi D \times L$ (mm), Ripple Current (mA r.m.s./85°C, 120Hz)

| WV(V.DC) Cap(μF) | 4 (0G) | | 6.3 (0J) | | 10 (1A) | | 16 (1C) | | 25 (1E) | | 35 (1V) | | 50 (1H) | | 63 (1J) | | 100 (2A) | |
|---------------------|--------|--------|----------|--------|---------|--------|---------|--------|---------|--------|---------|---------|---------|--------|---------|--------|----------|--------|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.1 | | | | | | | | | | | | 3×5.5 | 1.0 | | | | | |
| 0.22 | | | | | | | | | | | | 4×5.5 | 2.0 | | | | | |
| 0.33 | | | | | | | | | | | | 3×5.5 | 2.8 | | | | | |
| 0.47 | | | | | | | | | | | | 4×5.5 | 4.0 | | | | | |
| 1 | | | | | | | | | | | | 3×5.5 | 8.0 | | | | | |
| 2.2 | | | | | | | | | | | | 4×5.5 | 8.4 | | | | | |
| 3.3 | | | | | | | | | | | | 3×5.5 | 10 | | | | | |
| 4.7 | | | | | | | | | | | | 4×5.5 | 17 | | | | | |
| 10 | | | | | | | | | | | | 3×5.5 | 18 | | | | | |
| 22 | | | | | | | | | | | | 4×5.5 | 12 | | | | | |
| 33 | | | | | | | | | | | | 3×5.5 | 12 | | | | | |
| 47 | | | | | | | | | | | | 4×5.5 | 18 | | | | | |
| 100 | | | | | | | | | | | | 5×5.5 | 22 | | | | | |
| 220 | | | | | | | | | | | | 4×5.5 | 18 | | | | | |
| 330 | | | | | | | | | | | | 3×5.5 | 10 | | | | | |
| 470 | | | | | | | | | | | | 4×5.5 | 17 | | | | | |
| 1000 | | | | | | | | | | | | 5×5.5 | 22 | | | | | |
| 2200 | | | | | | | | | | | | 4×5.5 | 18 | | | | | |
| 3300 | | | | | | | | | | | | 3×5.5 | 10 | | | | | |
| 4700 | | | | | | | | | | | | 4×5.5 | 17 | | | | | |
| 6800 | | | | | | | | | | | | 5×5.5 | 22 | | | | | |
| 10000 | | | | | | | | | | | | 6.3×5.5 | 30 | | | | | |