

## SS series

## Features

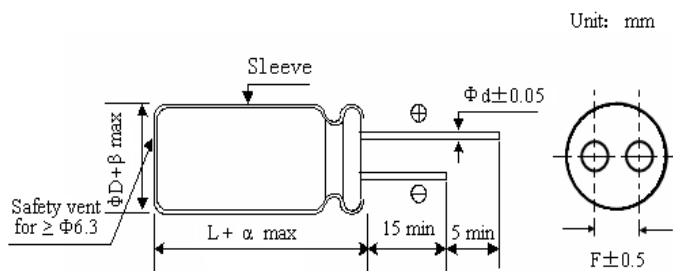
- ◆ 7(9)mm Height , 2000 hours at 85℃.
- ◆ RoHS Compliant .



## Specifications

| Item  | Performance Characteristics  |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
|---|--|----|--------------------------------------|----|----|----|--|----------------------|-----|----|----|----|----|----|-----------------|----|----|----|----|----|----|-----------------|---|---|---|---|---|---|
| Temperature Range   | -40~+85℃   |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Rated Voltage Range   | 6.3~50Vdc  |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Capacitance Range   | 0.1~470μF  |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Capacitance Tolerance   | ±20%（120Hz， +20℃）  |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Leakage Current<br>（+20℃,max.）                                    | I≤0.01CV or 3（μA）<br>After 2 minutes, whichever is greater measured with rated working voltage applied   |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Dissipation Factor（tgδ）<br>120Hz， +20℃                            | <table><tr><td>Working Voltage(Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>D.F(%)max.</td><td>24</td><td>20</td><td>16</td><td>14</td><td>12</td><td>10</td></tr></table>   |    |                                      |    |    |    |  | Working Voltage(Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | D.F(%)max.      | 24 | 20 | 16 | 14 | 12 | 10 |                 |   |   |   |   |   |   |
| Working Voltage(Vdc)  | 6.3  | 10 | 16                                   | 25 | 35 | 50 |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| D.F(%)max.  | 24   | 20 | 16                                   | 14 | 12 | 10 |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Low Temperature<br>Characteristics（120Hz）<br>Impedance ratio max. | <table><tr><td>Working Voltage(Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>Z - 25℃ / Z+20℃</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z - 40℃ / Z+20℃</td><td>8</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td></tr></table> |    |                                      |    |    |    |  | Working Voltage(Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | Z - 25℃ / Z+20℃ | 4  | 3  | 2  | 2  | 2  | 2  | Z - 40℃ / Z+20℃ | 8 | 6 | 4 | 4 | 3 | 3 |
| Working Voltage(Vdc)  | 6.3  | 10 | 16                                   | 25 | 35 | 50 |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Z - 25℃ / Z+20℃   | 4  | 3  | 2                                    | 2  | 2  | 2  |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Z - 40℃ / Z+20℃   | 8  | 6  | 4                                    | 4  | 3  | 3  |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Endurance   | The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2000 hours at 85℃   |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
|   | Capacitance Change   |    | ≤±20% of the initial value.          |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
|   | D.F.( tgδ)   |    | ≤200% of the initial specified value |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
|   | Leakage Current  |    | ≤The initial specified value         |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Shelf Life  | After storing the capacitors under no load at 85℃ for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20℃, they shall meet the specified values for the load life characteristics listed above.   |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |
| Others  | JISC-5101(IEC 60384)   |    |                                      |    |    |    |  |                      |     |    |    |    |    |    |                 |    |    |    |    |    |    |                 |   |   |   |   |   |   |

## Diagram of Dimensions



## Frequency Multipliers

| μF \ Hz | 50   | 120  | 300  | 1K   | 10K~ |
|---------|------|------|------|------|------|
| < 68    | 0.75 | 1.00 | 1.35 | 1.57 | 2.00 |
| 68~470  | 0.80 | 1.00 | 1.23 | 1.34 | 1.50 |

|    |                       |      |      |      |     |
|----|-----------------------|------|------|------|-----|
| ΦD | 4                     | 5    | 6.3  | 8    |     |
| L  | 7                     | 7    | 7    | 7    | 9   |
| F  | 1.5                   | 2.0  | 2.5  | 3.5  | 3.5 |
| Φd | 0.45                  | 0.45 | 0.45 | 0.45 | 0.5 |
| α  | (L≤7)+ 1.0 (L≥9)+ 1.5 |      |      |      |     |
| β  | +0.5                  |      |      |      |     |

## Standard Ratings

| wv (V) | Cap (μF) | Case Size | Ripple Current | wv (V) | Cap (μF) | Case Size | Ripple Current | wv (V) | Cap (μF) | Case Size | Ripple Current | wv (V) | Cap (μF) | Case Size | Ripple Current |
|--------|----------|-----------|----------------|--------|----------|-----------|----------------|--------|----------|-----------|----------------|--------|----------|-----------|----------------|
| 6.3    | 22       | 4×7       | 34             | 16     | 10       | 4×7       | 28             | 35     | 1        | 4×7       | 8              | 50     | 0.1      | 4×7       | 1.0            |
|        | 47       | 4×7       | 48             |        | 22       | 4×7       | 39             |        | 2.2      | 4×7       | 16             |        | 0.47     | 4×7       | 5.0            |
|        | 100      | 5×7       | 78             |        | 47       | 5×7       | 65             |        | 3.3      | 4×7       | 20             |        | 1        | 4×7       | 10             |
|        | 220      | 6.3×7     | 120            |        | 100      | 6.3×7     | 98             |        | 4.7      | 4×7       | 24             |        | 2.2      | 4×7       | 19             |
|        | 470      | 8×7       | 215            |        | 220      | 8×9       | 186            |        | 10       | 4×7       | 31             |        | 4.7      | 4×7       | 28             |
| 10     | 22       | 4×7       | 35             | 25     | 10       | 4×7       | 28             | 35     | 22       | 5×7       | 52             | 50     | 10       | 5×7       | 38             |
|        | 47       | 5×7       | 59             |        | 22       | 4×7       | 42             |        | 33       | 6.3×7     | 65             |        | 22       | 6.3×7     | 58             |
|        | 100      | 6.3×7     | 87             |        | 47       | 6.3×7     | 71             |        | 47       | 6.3×7     | 74             |        | 33       | 8×7       | 75             |
|        | 220      | 8×7       | 145            |        | 100      | 8×7       | 115            |        | 100      | 8×9       | 141            |        | 47       | 8×9       | 101            |
|        |          |           |                |        |          |           |                |        |          |           |                |        |          |           |                |

Max Allowable Ripple Current (mA,rms) at 85℃ 120Hz, Case Size ΦD×L(mm).

Above size is the standard size for our product. If you need special size please contact our sales offices.