

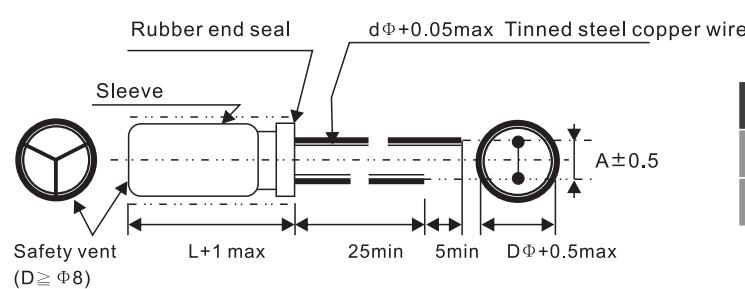
# SI Series

- 7mmL, height, 2000-hours-load life at 85 °C

- SPECIFICATIONS

| Items                              | Characteristics   |   |      |      |      |      |      |      |      |
|------------------------------------|---|---|------|------|------|------|------|------|------|
| Category                           |   |   |      |      |      |      |      |      |      |
| Temperature Range                  | - 40 to + 85°C  |   |      |      |      |      |      |      |      |
| Rated Voltage Range                | 4v to 63Vdc   |   |      |      |      |      |      |      |      |
| Capacitance Tolerance              | $\pm 20\%$ (M) (at 20°C ,120Hz)   |   |      |      |      |      |      |      |      |
| Leakage Current                    | $I \leq 0.01CV$ or $3\mu A$ , whichever is greater.<br>Where, I :Max. Leakage current ( $\mu A$ ).<br>C: Nominal capacitance ( $\mu F$ ). V :Rated voltage(V) (at 20°C , after 2 minutes) |   |      |      |      |      |      |      |      |
| Dissipation Factor (tan $\delta$ ) | Rated voltage (Vdc)   | 4V  | 6.3V | 10V  | 16V  | 25V  | 35V  | 50V  | 63V  |
|                                    | tan $\delta$ (Max.)   | 0.35  | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.10 |
|                                    | (at 20°C ,120Hz)  |   |      |      |      |      |      |      |      |
| Low Temperature Characteristics    | Impedance ration max at 120Hz   |   |      |      |      |      |      |      |      |
|                                    | Working voltage   | 4v  | 6.3v | 10v  | 16v  | 25v  | 35v  | 50v  | 63v  |
|                                    | Z-25°C/ Z+20°C  | 7   | 4    | 2    | 2    | 2    | 2    | 2    | 2    |
|                                    | Z-40°C/ Z+20°C  | 14  | 10   | 8    | 6    | 4    | 4    | 4    | 4    |
| Load. Life                         | The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for 2000 hours at 85°C  |   |      |      |      |      |      |      |      |
|                                    | Capacitance change  | $\leq \pm 20\%$ of the initial value        |      |      |      |      |      |      |      |
|                                    | DF (tan $\delta$ )  | $\leq 200\%$ of the initial specified value |      |      |      |      |      |      |      |
|                                    | Leakage current   | $\leq$ The initial specified value          |      |      |      |      |      |      |      |
| Shelf Life                         | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 85°C without voltage applied.                               |   |      |      |      |      |      |      |      |
|                                    | Capacitance change  | $\leq \pm 20\%$ of the initial value        |      |      |      |      |      |      |      |
|                                    | DF (tan $\delta$ )  | $\leq 200\%$ of the initial specified value |      |      |      |      |      |      |      |
|                                    | Leakage current   | $\leq$ The initial specified value          |      |      |      |      |      |      |      |
| Ripple Current Multiplier          | Temperature coefficient   |   |      |      |      |      |      |      |      |
|                                    | Temperature(°C)   | ~55   | 60   | 70   | 85   |      |      |      |      |
|                                    | Factor  | 1.65  | 1.50 | 1.30 | 1.00 |      |      |      |      |
|                                    | Frequency coefficient   |   |      |      |      |      |      |      |      |
|                                    | cap freq  | 50  | 120  | 300  | 1K   | 10K~ |      |      |      |
|                                    | ~47   | 0.75  | 1.00 | 1.20 | 1.30 | 1.45 |      |      |      |
|                                    | 100~470   | 0.80  | 1.00 | 1.10 | 1.15 | 1.20 |      |      |      |

- Diagram: (Unit: mm)



|                   |      |      |      |      |
|-------------------|------|------|------|------|
| Body Dia $\Phi D$ | 4    | 5    | 6    | 8    |
| Lead Dia $\Phi d$ | 0.45 | 0.50 | 0.50 | 0.50 |
| Lead Space A      | 1.5  | 2.0  | 2.5  | 3.5  |



富之餘電子實業股份有限公司

Fuhjyyu Electronic Industrial Co.,Ltd.

● STANDARD RATING

| Vdc<br>μF | 4     | 6.3 | 10    | 16  | 25    | 35  | 50    | 63  | Chip Type SMD | Miniature Type | General Purpose | High Frequency Low Impedance | High Voltage High Reliability | Non-polar Type | Large Size Snap-in | Large Size Screw | X Metallized Polypropylene Film Capacitors |
|-----------|-------|-----|-------|-----|-------|-----|-------|-----|---------------|----------------|-----------------|------------------------------|-------------------------------|----------------|--------------------|------------------|--|
| 0.1       |       |     |       |     |       |     | 4*7   | 2.0 | 4*7           | 2.0            |                 |                              |                               |                |                    |                  |  |
| 0.22      |       |     |       |     |       |     | 4*7   | 3.0 | 4*7           | 3.0            |                 |                              |                               |                |                    |                  |  |
| 0.33      |       |     |       |     |       |     | 4*7   | 4.0 | 4*7           | 4.0            |                 |                              |                               |                |                    |                  |  |
| 0.47      |       |     |       |     |       |     | 4*7   | 5.0 | 4*7           | 6.0            |                 |                              |                               |                |                    |                  |  |
| 1.0       |       |     |       |     |       |     | 4*7   | 10  | 4*7           | 11             |                 |                              |                               |                |                    |                  |  |
| 2.2       |       |     |       |     |       |     | 4*7   | 15  | 4*7           | 17             |                 |                              |                               |                |                    |                  |  |
| 3.3       |       |     |       |     |       |     | 4*7   | 18  | 5*7           | 21             |                 |                              |                               |                |                    |                  |  |
| 4.7       |       |     |       |     |       |     | 4*7   | 22  | 5*7           | 23             | 6.3*7           | 26                           |                               |                |                    |                  |  |
| 10        |       |     |       |     | 4*7   | 25  | 4*7   | 26  | 5*7           | 30             | 5*7             | 34                           | 6.3*7                         | 43             |                    |                  |  |
| 22        |       |     | 4*7   | 31  | 4*7   | 32  | 5*7   | 39  | 6.3*7         | 41             | 6.3*7           | 47                           | 6.3*7                         | 53             | 8*7                | 70               |  |
| 33        | 4*7   | 32  | 4*7   | 32  | 5*7   | 35  | 5*7   | 43  | 6.3*7         | 53             | 6.3*7           | 64                           | 8*7                           | 76             | 8*7                | 80               |  |
| 47        | 4*7   | 38  | 5*7   | 38  | 5*7   | 47  | 5*7   | 59  | 6.3*7         | 65             | 8*7             | 83                           | 8*7                           | 85             | 8*7                | 95               |  |
| 100       | 5*7   | 61  | 5*7   | 71  | 5*7   | 80  | 6.3*7 | 90  | 8*7           | 100            | 8*7             | 115                          |                               |                |                    |                  |  |
| 150       | 5*7   | 75  | 6.3*7 | 85  | 6.3*7 | 98  | 8*7   | 109 | 8*7           | 123            |                 |                              |                               |                |                    |                  |  |
| 180       | 6.3*7 | 85  | 8*7   | 95  | 8*7   | 108 | 8*9   | 115 | 8*9           | 128            |                 |                              |                               |                |                    |                  |  |
| 220       | 6.3*7 | 90  | 6.3*7 | 99  | 6.3*7 | 118 | 8*9   | 135 |               |                |                 |                              |                               |                |                    |                  |  |
| 330       | 6.3*7 | 129 | 8*7   | 150 |       |     |       |     |               |                |                 |                              |                               |                |                    |                  |  |
| 470       | 8*9   | 150 | 8*9   | 170 |       |     |       |     |               |                |                 |                              |                               |                |                    |                  |  |

Ripple Current : mA/rms at 120Hz 85°C