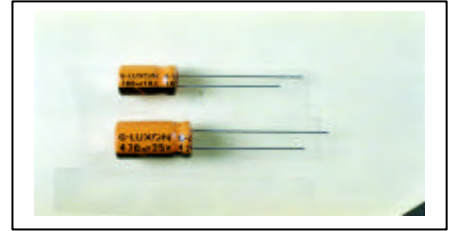


## SL Series

### Specifications

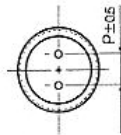
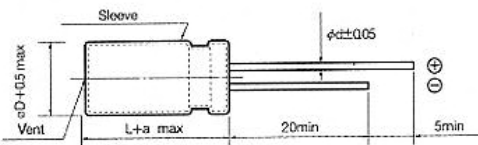
**Features**  
 Lifetime: 85, 1000hrs  
 Low leakage current  
 Low profile/Miniature  
 7mm height

**Recommended Applications**  
 AV (TV, Video, Audio)  
 Monitor/Computer  
 OA/HA/Communication  
 Hi-Fi Pre-Amp  
 Timer/Oscillation circuit



| Items   | Characteristics   |   |      |      |      |      |      |      |      |   |
|---|---|---|------|------|------|------|------|------|------|---|
| Capacitance Tolerance                           | ± 20% (M) (120Hz, 20 °)   |   |      |      |      |      |      |      |      |   |
| Rated Voltage Range (WV)                        | 4~63 VDC  |   |      |      |      |      |      |      |      |   |
| Operating Temperature Range                     | -40 ~ +85   |   |      |      |      |      |      |      |      |   |
| Surge Voltage (V) (20 °)                        | WV  | 4   | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   |   |
|   | SV  | 5   | 8    | 13   | 20   | 32   | 44   | 63   | 79   |   |
| Leakage Current (Max) (20 °)                    | I = 0.002CV or 0.4 μ A whichever is greater<br>(After rated voltage applied for 2 minutes)                              |   |      |      |      |      |      |      |      |   |
|   | I = Leakage Current ( μ A) C = Nominal Capacitance ( μ F) V = Rated Voltage (V)   |   |      |      |      |      |      |      |      |   |
| Dissipation Factor (Max) (tan δ) (120Hz, 20 °)  | WV  | 4   | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   |   |
|   | tan δ   | 0.35                                      | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 |   |
| Low Temperature Stability Impedance Ratio (Max) | WV  |   |      |      |      |      |      |      |      |   |
|   | Z (120Hz)   | 4   | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   |   |
|   | Z(-25 °) / Z(20 °)  | 6   | 4    | 3    | 2    | 2    | 2    | 2    | 2    | 2 |
| Load Life                                       | After applying rated voltage for 1000 hours at 85 °, the capacitor shall meet the following requirement.                |   |      |      |      |      |      |      |      |   |
|   | Capacitance Change  | Within ± 20% of the initial value         |      |      |      |      |      |      |      |   |
|   | Dissipation Factor  | Not more than 200% of the specified value |      |      |      |      |      |      |      |   |
| Shelf Life                                      | After placed at 85 ° without voltage applied for 500 hours, the capacitor shall meet the same requirement as load life. |   |      |      |      |      |      |      |      |   |
|   | Refer to JIS C 5101   |   |      |      |      |      |      |      |      |   |
|   | Applicable standards  |   |      |      |      |      |      |      |      |   |

### Dimensions (mm)



|   |      |     |     |
|---|------|-----|-----|
| D | 4    | 5   | 6.3 |
| P | 1.5  | 2.0 | 2.5 |
| d | 0.45 | 0.5 | 0.5 |
| a | 1.0  | 1.0 | 1.0 |

### Multiplier for Ripple Current

#### Frequency coefficient

| WV (VDC) \ Freq. (Hz) | 50   | 120  | 1K   | 10K  |
|-----------------------|------|------|------|------|
| 4~10                  | 0.80 | 1.00 | 1.10 | 1.20 |
| 16~25                 | 0.80 | 1.00 | 1.20 | 1.30 |
| 35~63                 | 0.80 | 1.00 | 1.50 | 1.70 |

#### Temperature coefficient

|                          |      |      |      |
|--------------------------|------|------|------|
| Ambient Temperature ( °) | 50   | 70   | 85   |
| Coefficient              | 1.36 | 1.25 | 1.00 |

**Case Size / Max Ripple Current**

CASE SIZE ( DxL(mm)) / MAX PERMISSIBLE RIPPLE CURRENT (RC(mArms) / 120Hz,85 )

| wv         | 4     |     | 6.3   |     | 10    |     | 16    |    | 25    |    | 35    |    |
|------------|-------|-----|-------|-----|-------|-----|-------|----|-------|----|-------|----|
| SPEC<br>μF | DxL   | RC  | DxL   | RC  | DxL   | RC  | DxL   | RC | DxL   | RC | DxL   | RC |
| 4.7        |       |     |       |     |       |     |       |    |       |    | 4x7   | 25 |
| 10         |       |     |       |     | 4x7   | 25  | 4x7   | 30 | 4x7   | 30 | 5x7   | 35 |
| 22         | 4x7   | 30  | 4x7   | 35  | 4x7   | 40  | 4x7   | 45 | 5x7   | 55 | 6.3x7 | 55 |
| 33         | 4x7   | 40  | 4x7   | 45  | 5x7   | 50  | 5x7   | 60 | 5x7   | 65 | 6.3x7 | 70 |
| 47         | 4x7   | 45  | 5x7   | 50  | 6.3x7 | 60  | 6.3x7 | 65 | 6.3x7 | 80 |       |    |
| 100        | 5x7   | 75  | 5x7   | 80  | 6.3x7 | 90  | 6.3x7 | 95 |       |    |       |    |
| 220        | 6.3x7 | 125 | 6.3x7 | 135 | 6.3x7 | 145 |       |    |       |    |       |    |

| wv         | 50    |    | 63    |    |
|------------|-------|----|-------|----|
| SPEC<br>μF | DxL   | RC | DxL   | RC |
| 0.1        | 4x7   | 1  | 4x7   | 1  |
| 0.22       | 4x7   | 2  | 4x7   | 2  |
| 0.33       | 4x7   | 3  | 4x7   | 3  |
| 0.47       | 4x7   | 5  | 4x7   | 5  |
| 1          | 4x7   | 15 | 4x7   | 15 |
| 2.2        | 4x7   | 20 | 4x7   | 25 |
| 3.3        | 4x7   | 25 | 5x7   | 30 |
| 4.7        | 5x7   | 30 | 6.3x7 | 35 |
| 10         | 6.3x7 | 45 |       |    |