



FEATURES

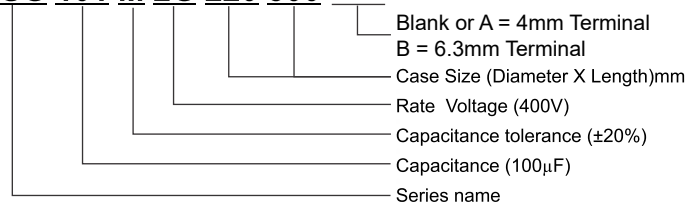
- Has a snap-in terminal which can solder to a PCB directly and need not fixture to save processing time
- Suitable for electronic equipment with medium-high voltage circuits
- Printed circuit board terminal snap-in type and lug terminal type available
- 105°C, 2,000 hours assured

SPECIFICATIONS

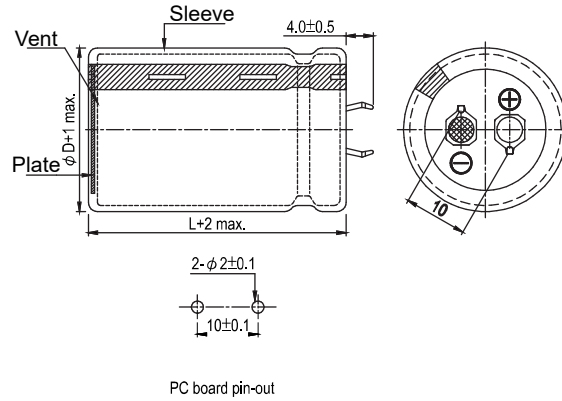
| Items | Performance | | | | | | | | | | | | | | | |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------|------|---------|-----------|------|----------------|--------|------|------|------|------|------|------|------|
| Category Temperature Range | 16 ~ 100V | | | | | | | 160 ~ 500V | | | | | | | | |
| | -40°C ~ +105°C | | | | | | | -25°C ~ +105°C | | | | | | | | |
| Capacitance Tolerance | ±20% (at 120 Hz, 20°C) | | | | | | | | | | | | | | | |
| Leakage Current (at 20°C) | I = 3√CV or 1.5 mA whichever is smaller (after 5 minutes) Where, C = rated capacitance in μF, V = rated DC Rated Voltage in V | | | | | | | | | | | | | | | |
| Tanδ (at 120 Hz, 20°C) | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 |
| | Tanδ (max) | 0.50 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Low Temperature Characteristics (at 120 Hz) | Impedance ratio shall not exceed the values given in the table below. | | | | | | | | | | | | | | | |
| | Rated Voltage | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 420 | 450 | 500 |
| | Impedance Ratio | Z(-25°C)/Z(+20°C) | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 |
| Endurance | Test Time | | 2,000 Hrs | | | | | | | | | | | | | |
| | Capacitance Change | | Within ±20% of initial value | | | | | | | | | | | | | |
| | Tanδ | | Less than 200% of specified value | | | | | | | | | | | | | |
| | Leakage Current | | Within specified value | | | | | | | | | | | | | |
| | * The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 hours at 105°C. | | | | | | | | | | | | | | | |
| Shelf Life Test | Test Time | | 1,000 Hrs | | | | | | | | | | | | | |
| | Capacitance Change | | Within ±20% of initial value | | | | | | | | | | | | | |
| | Tanδ | | Less than 150% of specified value | | | | | | | | | | | | | |
| | Leakage Current | | Within specified value | | | | | | | | | | | | | |
| | * The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1). | | | | | | | | | | | | | | | |
| Ripple Current and Frequency Multipliers | Case size | Rated Volt. (V) | Freq.(Hz) | | 50 / 60 | 100 / 120 | 500 | 1k | 10k up | | | | | | | |
| | | | ≤ 100 | 0.92 | 1.00 | 1.13 | 1.19 | 1.20 | | | | | | | | |
| | Length ≤ 55L | 160 ~ 250 | 0.81 | 1.00 | 1.32 | 1.45 | 1.50 | | | | | | | | | |
| | | 350 ≤ | 0.77 | 1.00 | 1.30 | 1.41 | 1.43 | | | | | | | | | |
| Length ≥ 60L | 160 ~ 450 | 0.88 | 1.00 | 1.20 | 1.25 | 1.40 | | | | | | | | | | |
| Failure percentage Failure rate | When the failure percentage / failure rate is required, please contact with us for further discussion. | | | | | | | | | | | | | | | |

PART NUMBER EXAMPLE

LSG 101 M 2G 220 300



■ **DIAGRAM OF DIMENSIONS in mm**



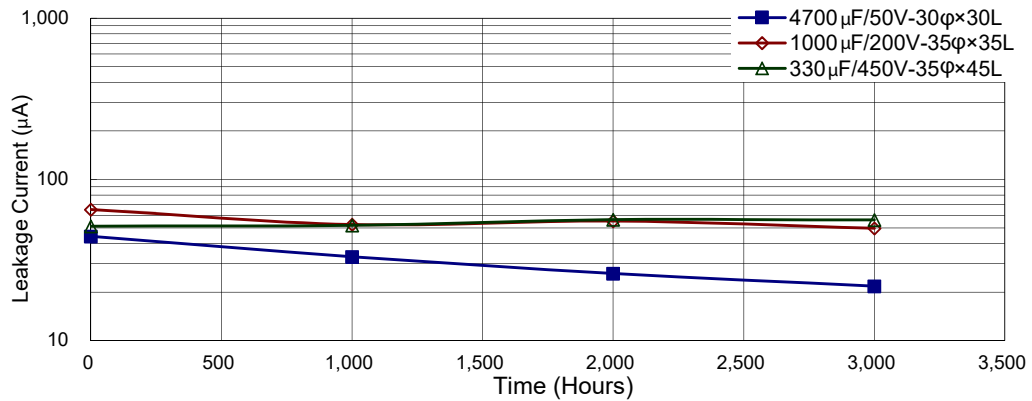
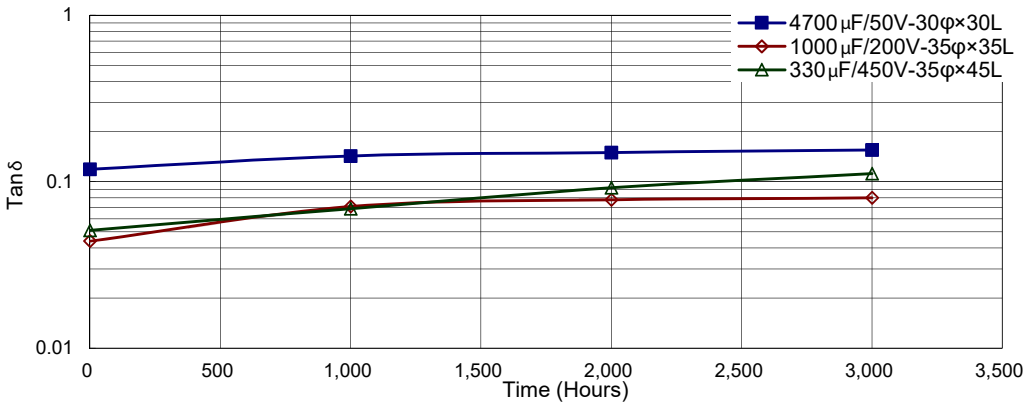
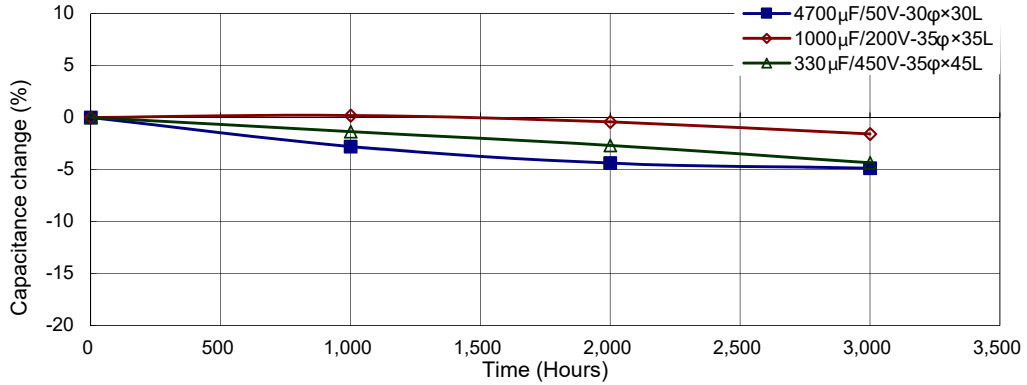
■ **DIMENSION AND PERMISSIBLE RIPPLE CURRENT**

(DIMENSION: $\Phi D \times L$ (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

| μF | V.D.C. CODE | 16V (1C) | | | | | 25V (1E) | | | | | 35V (1V) | | | | |
|---------|----------------|----------|------|---------|------|---------|----------|---------|------|---------|---------|----------|---------|------|---------|------|
| | | 20 | 22 | 25 | 30 | 35 | 22 | 25 | 30 | 35 | 22 | 25 | 30 | 35 | | |
| 3300 | 332 | | | | | | | | | | 22 X 25 | 1.30 | | | | |
| 3900 | 392 | | | | | | | | | | 22 X 30 | 1.50 | | | | |
| 4700 | 472 | | | | | | | | | | 22 X 25 | 1.63 | 25 X 25 | 1.70 | | |
| 5600 | 562 | | | | | | | | | | 22 X 25 | 1.63 | 25 X 25 | 1.77 | 30 X 25 | 1.99 |
| 6800 | 682 | | | | | | | | | | 22 X 30 | 1.86 | 25 X 30 | 2.04 | 30 X 30 | 2.24 |
| 8200 | 822 | | | | | | | | | | 22 X 35 | 2.10 | 25 X 35 | 2.60 | 30 X 25 | 2.49 |
| 10000 | 103 | 20 X 25 | 1.61 | 22 X 25 | 1.78 | | | | | | 22 X 25 | 1.73 | | | | |
| 12000 | 123 | | | 22 X 25 | 1.92 | | | | | | 22 X 30 | 2.05 | 25 X 25 | 2.05 | | |
| 15000 | 153 | | | 22 X 30 | 2.00 | 25 X 25 | 2.25 | | | | 22 X 35 | 2.23 | 25 X 25 | 2.09 | 30 X 25 | 2.45 |
| 18000 | 183 | | | 22 X 30 | 2.00 | 25 X 25 | 2.25 | | | | 22 X 40 | 3.00 | 25 X 35 | 2.80 | 30 X 25 | 2.72 |
| 22000 | 223 | | | 22 X 35 | 2.49 | 25 X 30 | 2.52 | 30 X 25 | 2.61 | | 22 X 45 | 2.90 | 25 X 35 | 2.83 | 30 X 30 | 3.07 |
| 27000 | 273 | | | 22 X 40 | 2.90 | 25 X 30 | 2.77 | 30 X 25 | 2.88 | | 22 X 50 | 3.30 | 25 X 40 | 3.22 | 30 X 30 | 3.18 |
| 33000 | 333 | | | | | 25 X 35 | 3.02 | 30 X 30 | 3.15 | | | | | | | |
| 39000 | 393 | | | | | | | 30 X 30 | 3.48 | 35 X 25 | 3.57 | | | | | |
| 47000 | 473 | | | | | | | 30 X 35 | 4.03 | 35 X 30 | 4.16 | | | | | |
| | | | | | | | | | | 35 X 35 | 4.85 | | | | | |

| μF | V.D.C. CODE | 50V (1H) | | | | 63V (1J) | | | | 80V | | | | | |
|---------|----------------|----------|------|---------|------|----------|------|---------|------|---------|------|---------|------|---------|------|
| | | 22 | 25 | 30 | 35 | 22 | 25 | 30 | 35 | 22 | 25 | 30 | 35 | | |
| 1000 | 102 | | | | | | | | | 22 X 25 | 1.05 | | | | |
| 1200 | 122 | | | | | | | | | 22 X 30 | 1.24 | | | | |
| 1500 | 152 | | | | | | | | | 22 X 35 | 1.48 | 25 X 25 | 1.38 | | |
| 1800 | 182 | 22 X 25 | 1.33 | | | | | | | 22 X 40 | 1.72 | 25 X 30 | 1.63 | | |
| 2200 | 222 | 22 X 25 | 1.48 | | | | | | | 22 X 45 | 1.82 | 25 X 30 | 1.65 | | |
| 2700 | 272 | 22 X 25 | 1.53 | 25 X 25 | 1.57 | | | | | 22 X 35 | 1.89 | 25 X 30 | 1.90 | 30 X 25 | 1.97 |
| 3300 | 332 | 22 X 30 | 1.76 | 25 X 25 | 1.70 | | | | | 22 X 40 | 1.99 | 25 X 35 | 2.06 | 30 X 25 | 2.00 |
| 3900 | 392 | 22 X 35 | 1.97 | 25 X 25 | 1.82 | 30 X 25 | 1.95 | | | 22 X 45 | 2.34 | 25 X 35 | 2.20 | 30 X 25 | 2.18 |
| 4700 | 472 | 22 X 35 | 2.01 | 25 X 30 | 2.18 | 30 X 25 | 2.04 | 35 X 25 | 2.48 | 22 X 50 | 2.58 | 25 X 40 | 2.51 | 30 X 30 | 2.48 |
| 5600 | 562 | 22 X 40 | 2.32 | 25 X 35 | 2.47 | 30 X 25 | 2.33 | | | | | 25 X 45 | 2.92 | 30 X 35 | 2.91 |
| 6800 | 682 | | | | | | | | | | | | | 30 X 35 | 3.00 |
| 8200 | 822 | 22 X 45 | 2.70 | 25 X 40 | 2.92 | 30 X 30 | 2.84 | 35 X 25 | 2.91 | | | | | 30 X 50 | 3.65 |
| 10000 | 103 | | | 25 X 45 | 3.13 | 30 X 35 | 3.13 | 35 X 30 | 3.23 | | | | | 30 X 45 | 3.57 |
| 12000 | 123 | | | 25 X 50 | 3.39 | 30 X 40 | 3.55 | 35 X 30 | 3.47 | | | | | 35 X 35 | 3.52 |
| 15000 | 153 | | | | | 30 X 45 | 4.04 | 35 X 35 | 3.98 | | | | | 35 X 40 | 3.90 |
| | | | | | | 30 X 50 | 4.60 | 35 X 45 | 4.80 | | | | | 35 X 45 | 4.50 |

■ **TYPICAL ENDURANCE CURVES**



■ **USEFUL LIFE CHART**

