

LD 系列 Series

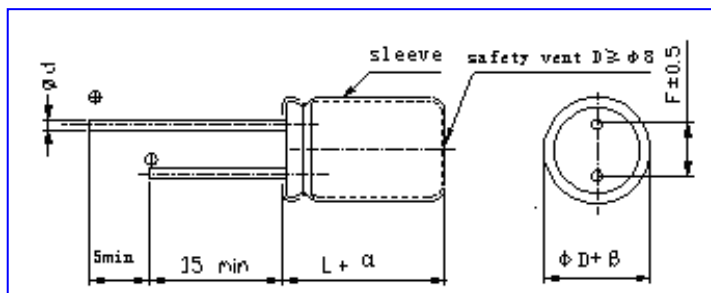
- 耐高纹波，耐高温，特长寿命，105°C 6000 小时~8000 小时
High Ripple Current High Temperature , extremely Long Life, Life time 105°C 6000hours~8000hours
- 专为 LED 驱动电源设计制造
Specially designed for light emitting diode lamp (LED) drive source
- RoHS 指令已对应完毕。
Adapted to the RoHS directive.

主要技术性能 Specifications

| 项目 Item | 特性 Performance Characteristics | | | | | | | | | | | | |
|---|---|--|------------|------|-----------|------|------|-----|-----|-----|-----|-----|-----|
| 使用温度范围 Operating temperature range | -40°C ~ +105°C | | | | | | | | | | | | |
| 额定电压范围 Rated voltage range | 16V~100V | 160V ~ 450V | | | | | | | | | | | |
| 标称容量范围 Nominal capacitance range | 0.47μF ~ 10000μF | | | | | | | | | | | | |
| 容量允许偏差 Capacitance tolerance | ± 20% (120Hz, +20°C) | | | | | | | | | | | | |
| 漏电流 Leakage current (+20°C) | $I \leq 0.01CV$ 或 $3(\mu A)$ 2分钟 取较大者 (at 20°C, after 2 minutes) (whichever is greater) | $I \leq 0.02 CV + 10 \mu A$ (2分钟, 20°C) 0.02CV+10 μ A(at 20°C ,after 2 minutes) | | | | | | | | | | | |
| | C: 标称容量Capacitance (μF); V: 额定电压Rated voltage range (V) | | | | | | | | | | | | |
| 损耗角正切值 Dissipation factor (tg δ) (+20°C, 120Hz) | U _R (V) | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | |
| | tg δ | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.09 | | | | | | |
| | U _R (V) | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | |
| | tg δ | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 | | | | | | |
| | 容量大于 1000μF 者，每增加 1000μF，其损耗角正切值增加 0.02。When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. | | | | | | | | | | | | |
| 温度特性 Temperature characteristics (Impedance ratio at 120Hz) | U _R (V) | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 |
| | Z-40°C / +20°C | 8 | 6 | 6 | 6 | 4 | 4 | 6 | 6 | 6 | 7 | 7 | 9 |
| 耐久性 Load life | 在+105°C 条件下，施加含额定纹波电流的额定电压，持续规定时间，并在+20°C下恢复 16 小时后，电容器应符合下列要求 The following specifications shall be met when the capacitors are restored to +20°C for 16 hours after D.C. bias rated ripple current is applied at +105°C, the peak voltage shall not exceed the voltage. | | | | | | | | | | | | |
| | Time | 16WV~100WV | φ 5~ φ 6.3 | | 6000hours | | | | | | | | |
| | | | φ ≥ 8 | | 8000hours | | | | | | | | |
| | | 160WV~450WV | 8000hours | | | | | | | | | | |
| | Capacitance change | ±20%初始测量值以内 ±20% of the Initial measured value | | | | | | | | | | | |
| | Leakage current | ≤初始规定值 ≤the Initial specified value | | | | | | | | | | | |
| | Dissipation factor | ≤2倍初始规定值 ≤2times of the Initial specified value | | | | | | | | | | | |
| 高温贮存 Shelf life | +105°C 1000 小时贮存后，恢复 16 小时后 After storage for 1000 hours at +105°C and then resumed for 16 hours: | | | | | | | | | | | | |
| | Capacitance change | ±20%初始测量值以内 ±20% of the Initial measured value | | | | | | | | | | | |
| | Leakage current | ≤2倍初始规定值 ≤2 times of the Initial specified value | | | | | | | | | | | |
| | Dissipation factor | ≤2倍初始规定值 ≤2times of the Initial specified value | | | | | | | | | | | |

外形图及尺寸表 Case size table

Unit :mm



| | | | | | | | |
|---|-----|-----|---------|-----|------|-----|-----|
| D | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | 7.5 |
| d | 0.5 | 0.5 | 0.5、0.6 | 0.6 | | 0.8 | 0.8 |

| | |
|-------|----------------|
| α MAX | (L < 20) 1.5 |
| | (L ≥ 20) 2.0 |

| | |
|-------|-----|
| β MAX | 0.5 |
|-------|-----|

■ 尺寸 Dimensions

| VV CAP(μF) | | 250V (2E) | | | 350V (2V) | | | 400V (2G) | | | 450V (2W) | | |
|---------------|-----|-----------|------|--------|-----------|-------|--------|-----------|------|--------|-----------|-------|--------|
| | | Size | ESR | Ripple | Size | ESR | Ripple | Size | ESR | Ripple | Size | ESR | Ripple |
| 1.0 | 010 | | | | 6.3×11 | 29.0 | 45 | 6.3×11 | 33.0 | 60 | 6.3×11 | 28.56 | 65 |
| 1.2 | 1R2 | | | | 6.3×11 | 29.0 | 50 | 6.3×11 | 33.0 | 65 | 6.3×11 | 28.56 | 70 |
| 1.5 | 1R5 | | | | 6.3×11 | 29.0 | 55 | 6.3×11 | 33.0 | 70 | 6.3×11 | 28.56 | 75 |
| 1.8 | 1R8 | | | | 6.3×11 | 20.0 | 60 | 6.3×11 | 33.0 | 75 | 6.3×11 | 22.25 | 75 |
| 2.2 | 2R2 | 6.3×11 | 30.0 | 75 | 6.3×11 | 20.0 | 75 | 6.3×11 | 33.0 | 80 | 8×11.5 | 16.25 | 80 |
| 2.7 | 2R7 | 6.3×11 | 30.0 | 80 | 8×11.5 | 18.0 | 80 | 8×11.5 | 33.0 | 90 | 8×11.5 | 16.25 | 85 |
| 3.3 | 3R3 | 6.3×11 | 30.0 | 85 | 8×11.5 | 16.85 | 85 | 8×11.5 | 10.5 | 95 | 8×11.5 | 16.25 | 90 |
| 3.9 | 3R9 | 8×11.5 | 14.9 | 90 | 8×11.5 | 16.85 | 90 | 8×11.5 | 10.5 | 100 | 8×11.5 | 16.25 | 95 |
| 4.7 | 4R7 | 8×11.5 | 14.9 | 105 | 8×11.5 | 16.85 | 90 | 8×11.5 | 10.5 | 105 | 8×16 | 11.25 | 110 |
| | | | | | | | | 8×16 | 10.5 | 105 | 10×12.5 | 11.25 | 115 |
| 5.6 | 5R6 | 8×11.5 | 10.9 | 110 | 8×16 | 11.25 | 110 | 8×16 | 10.5 | 130 | 8×20 | 8.05 | 130 |
| | | | | | | | | 10×12.5 | 9.50 | 130 | 10×16 | 8.05 | 130 |
| 6.8 | 6R8 | 8×11.5 | 8.02 | 120 | 8×16 | 11.25 | 130 | 8×20 | 9.50 | 160 | 8×20 | 8.05 | 170 |
| | | | | | | | | 10×16 | 9.50 | 160 | 10×16 | 8.05 | 170 |
| 8.2 | 8R2 | 8×16 | 8.02 | 125 | 8×20 | 10.30 | 150 | 10×16 | 5.40 | 230 | 10×16 | 8.05 | 225 |
| | | | | | 10×16 | 10.30 | 150 | | | | | | |
| 10 | 100 | 8×16 | 8.02 | 220 | 10×16 | 8.05 | 220 | 10×16 | 4.50 | 240 | 10×20 | 6.70 | 245 |
| | | | | | | | | | | | 12.5×15 | 6.70 | 245 |
| 15 | 150 | 10×16 | 3.85 | 370 | 10×20 | 6.50 | 295 | 10×25 | 4.30 | 300 | 12.5×20 | 6.70 | 340 |
| | | | | | | | | 12.5×20 | 4.30 | 300 | | | |
| 18 | 180 | 10×20 | 3.58 | 420 | 10×25 | 6.50 | 330 | 12.5×20 | 4.30 | 350 | 12.5×20 | 2.45 | 370 |
| | | | | | 12.5×20 | 6.50 | 385 | | | | 8×50 | 2.25 | 370 |
| 22 | 220 | 10×20 | 2.35 | 450 | 12.5×20 | 6.50 | 410 | 12.5×20 | 4.14 | 380 | 12.5×25 | 2.25 | 450 |
| | | 8×50 | 2.35 | 450 | | | | 8×50 | 4.14 | 410 | | | |
| 33 | 330 | 12.5×20 | 2.35 | 530 | 12.5×25 | 6.50 | 440 | 12.5×30 | 4.14 | 540 | 16×25 | 2.05 | 530 |
| | | | | | | | | 10×50 | 4.14 | 540 | 10×50 | 2.05 | 550 |
| 47 | 470 | 12.5×25 | 1.20 | 630 | 16×25 | 2.25 | 540 | 16×25 | 4.14 | 630 | 16×30 | 1.60 | 670 |
| | | | | | 10×50 | 2.25 | 590 | | | | | | |
| 56 | 560 | 12.5×30 | 1.20 | 670 | 16×25 | 2.25 | 610 | 16×30 | 2.05 | 680 | 16×35 | 1.36 | 730 |
| | | | | | | | | | | | 12.5×50 | 1.36 | 730 |
| 68 | 680 | 16×25 | 0.68 | 720 | 16×30 | 2.05 | 730 | 18×25 | 1.60 | 760 | 18×30 | 1.09 | 790 |
| | | 10×50 | 0.68 | 720 | | | | 12.5×50 | 1.60 | 760 | | | |
| 82 | 820 | 16×30 | 0.68 | 755 | 16×35 | 1.60 | 800 | 18×30 | 1.60 | 910 | 18×35 | 1.09 | 830 |
| 100 | 101 | 16×30 | 0.68 | 850 | 18×30 | 1.60 | 900 | 18×35 | 1.60 | 1120 | 18×40 | 0.85 | 970 |
| | | 12.5×50 | 0.68 | 850 | | | | | | | | | |
| 120 | 121 | 16×35 | 0.68 | 860 | 18×35 | 1.60 | 990 | 18×40 | 1.50 | 1350 | | | |
| 150 | 151 | 18×30 | 0.56 | 990 | 18×40 | 1.50 | 1100 | | | | | | |
| 180 | 181 | 18×35 | 0.56 | 1060 | | | | | | | | | |
| 220 | 221 | 18×40 | 0.42 | 1180 | | | | | | | | | |

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°C 100KHz

Maximum ESR (Ω) at 20°C 100KHz