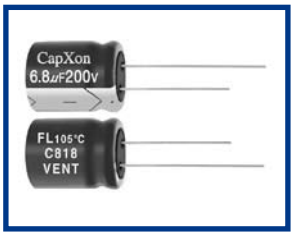
# FL Series Long Life for ballast 105℃




## Features

FK **long life** FL

- ◆ Specially designed for electronic ballast and energy-save lamp
- ◆ Load life 8000~10000 hrs at 105℃
- ◆ Safety vent construction design.
- ◆ For detail specifications, please refer to Engineering Bulletin NO. E149
- ◆ RoHS Compliant

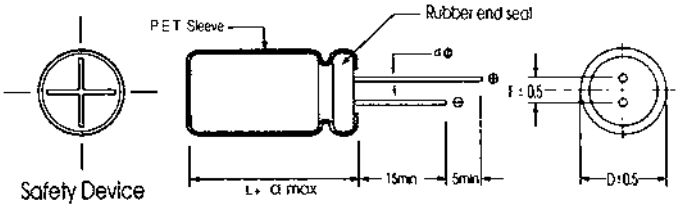
## Specifications

| Item | Performance Characteristics |
|---|---|
| Operating Temperature Range | -25~+105℃ |
| Rated Voltage Range | 160~450 VDC |
| Capacitance Range | 0.1 to 330 μF |
| Capacitance Tolerance | ±20%(120Hz,+20℃) |
| Leakage Current (+20℃,max.) | I=0.04 CV +100 (μA) (After 1 minute with rated working voltage applied.) |
| Dissipation Factor (tan δ ，at 20℃，120Hz) | Working Voltage(VDC): 160 / 200 / 250 / 350 / 400 / 450<br>D.F.(%)max.: 10 / 10 / 10 / 12 / 12 / 12<br>（+20℃，at 120Hz） |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio max<br>Working voltage(VDC): 160 / 200 / 250 / 350 / 400 / 450<br>Z-25℃ / Z+20℃: 3 / 3 / 3 / 6 / 6 / 6 |
| Load Life | Test condition<br>Duration time :As right<br>Ambient temperature :+105℃<br>Applied voltage :Rated DC working voltage<br>ϕD: 8ϕ / ≧10ϕ — Life (hours): 8000 / 10000<br>After test requirement at +20℃<br>Capacitance change : ≦±20% of the initial measured value<br>Dissipation factor : ≦200% of the initial specified value<br>Leakage current : ≦The initial specified value |
| Shelf Life | Test condition<br>Duration time :1000 Hrs<br>Ambient temperature :+105℃<br>Applied voltage :None<br>After test requirement at +20℃:Same limits as Load life.<br>Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. |

## Multiplier for Ripple Current vs. Frequency

| Frequency(Hz) | 120 | 1K | 10K | 10K≦ |
|---|---|---|---|---|
| Multiplier | 1.0 | 1.5 | 1.70 | 1.90 |

## Diagram of Dimensions:(unit:mm)




| Dϕ | 8 | | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|
| F | 3.5 | | 5.0 | 5.0 | 7.5 | 7.5 |
| dϕ | L＜20 | L≧20 | 0.6 | | 0.8 | |
| | 0.5 | 0.6 | | | | |

| α | D＜18 | D＝18 | | D＞18 |
|---|---|---|---|---|
| | 1.5 | L＜35.5 | L≧35.5 | |
| | | 1.5 | 2.0 | 2.0 |

## Case Size

φDxL(mm)

| WV(SV) / Cap(μF) | 160 (200) | | 200 (250) | | 250 (300) | | 350 (400) | | 400 (450) | | 450 (500) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 1.0 | | | | | | | 8X11.5 | 80 | 10X12.5 | 85 | 10X12.5 | 90 |
| 2.2 | | | | | | | 10X12.5 | 85 | 10X12.5 | 90 | 10X12.5 | 95 |
| 3.3 | | | | | 8X11.5 | 80 | 10X12.5 | 90 | 10X16 | 100 | 10X16 | 110 |
| 4.7 | | | | | 10X12.5 | 105 | 10X16 | 105 | 10X20 | 115 | 10X20 | 125 |
| 6.8 | | | 10X12.5 | 105 | 10X12.5 | 110 | 10X16 | 115 | 10X20 | 125 | 10X20 | 135 |
| 10 | 10X16 | 125 | 10X16 | 125 | 10X16 | 140 | 10X20 | 150 | 13X20 | 170 | 13X20 | 185 |
| 22 | 10X20 | 200 | 10X20 | 200 | 13X20 | 200 | 13X20 | 260 | 13X25 | 270 | 16X21 | 290 |
| 33 | 10X20 | 250 | 13X20 | 260 | 13X20 | 320 | 13X25 | 360 | 16X25 | 370 | 16X25 | 390 |
| 47 | 13X20 | 300 | 13X20 | 390 | 13X25 | 390 | 16X25 | 430 | 16X31.5 | 470 | 18X31.5 | 480 |
| 68 | 13X20 | 470 | 16X21 | 470 | 16X25 | 520 | 18X25 | 560 | 18X31.5 | 580 | 18X41 | 630 |
| 100 | 16X21 | 580 | 16X25 | 630 | 16X31.5 | 680 | 18X35.5 | 700 | 18X41 | 790 | 18X45 | 850 |
| 150 | 16X25 | 690 | 18X25 | 840 | 18X35.5 | 860 | 18X45 | 960 | | | | |
| 220 | 18X31.5 | 980 | 18X35.5 | 1050 | 18X45 | 1130 | | | | | | |
| 330 | 18X41 | 1250 | | | | | | | | | | |

Ripple Current ( mA, rms ) at 105℃ 120Hz