

# Aluminum Electrolytic Capacitors 8000-10000Hrs

## LF Series – Long Life for Ballast and Energy Save Lamp 105°C



### Specifications

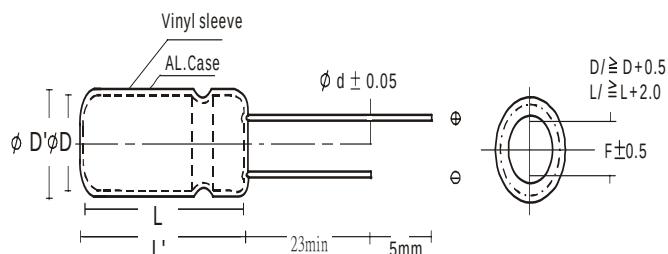
| Item                                                           | Performance                                                                                                                                                                                                                                                                                                                                                                             |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|--------------------|----------------------------------|---------------------------|-----------------------------------|-----|-----------|------|------|------|------|------|------|-----------|---|---|---|---|---|---|
| Operating Temperature Range                                    | -25 to+105℃                                                                                                                                                                                                                                                                                                                                                                             |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Rated Working Voltage Range                                    | 160 – 450VDC                                                                                                                                                                                                                                                                                                                                                                            |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Nominal Capacitance Range                                      | 6.8 - 220μ F                                                                                                                                                                                                                                                                                                                                                                            |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Capacitance Tolerance                                          | ± 20% (at+20℃ ,120Hz)                                                                                                                                                                                                                                                                                                                                                                   |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Leakage Current                                                | I≤0.03CV +40(μ A), after 5 minutes of rated voltage                                                                                                                                                                                                                                                                                                                                     |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Dissipation Factor (tanδ)<br>(120Hz\+25℃)                      | <table><tr><td>Working Vol.</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr><tr><td>Tan δ max</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.20</td><td>0.20</td><td>0.20</td></tr></table>                                                                                                                                                          | Working Vol.    | 160                           | 200                | 250                              | 350                       | 400                               | 450 | Tan δ max | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 |           |   |   |   |   |   |   |
| Working Vol.                                                   | 160                                                                                                                                                                                                                                                                                                                                                                                     | 200             | 250                           | 350                | 400                              | 450                       |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Tan δ max                                                      | 0.15                                                                                                                                                                                                                                                                                                                                                                                    | 0.15            | 0.15                          | 0.20               | 0.20                             | 0.20                      |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Characteristics at<br>Low Temperature<br>(stability at 120 Hz) | <table><tr><td>Working Vol VDC</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr><tr><td>-25℃/+25℃</td><td>4</td><td>4</td><td>4</td><td>8</td><td>8</td><td>15</td></tr><tr><td>-40℃/+25℃</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></table>                                                                                 | Working Vol VDC | 160                           | 200                | 250                              | 350                       | 400                               | 450 | -25℃/+25℃ | 4    | 4    | 4    | 8    | 8    | 15   | -40℃/+25℃ | - | - | - | - | - | - |
| Working Vol VDC                                                | 160                                                                                                                                                                                                                                                                                                                                                                                     | 200             | 250                           | 350                | 400                              | 450                       |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| -25℃/+25℃                                                      | 4                                                                                                                                                                                                                                                                                                                                                                                       | 4               | 4                             | 8                  | 8                                | 15                        |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| -40℃/+25℃                                                      | -                                                                                                                                                                                                                                                                                                                                                                                       | -               | -                             | -                  | -                                | -                         |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Load life                                                      | After 8000 to 10000hrs. application of DC rated working voltage at +105℃,<br>The capacitor shall meet the following limits:<br><table><tr><td>Leakage current</td><td>≤ the initial specified value</td></tr><tr><td>Capacitance change</td><td>≤ ±25% of initial measured value</td></tr><tr><td>Dissipation Factor (tanδ)</td><td>≤ 200% of initial specified value</td></tr></table> | Leakage current | ≤ the initial specified value | Capacitance change | ≤ ±25% of initial measured value | Dissipation Factor (tanδ) | ≤ 200% of initial specified value |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Leakage current                                                | ≤ the initial specified value                                                                                                                                                                                                                                                                                                                                                           |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Capacitance change                                             | ≤ ±25% of initial measured value                                                                                                                                                                                                                                                                                                                                                        |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Dissipation Factor (tanδ)                                      | ≤ 200% of initial specified value                                                                                                                                                                                                                                                                                                                                                       |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |
| Shelf Life                                                     | After storage for 1000hrs. at +105℃ with no voltage applied, pre-treatments shall be conducted after application of DC rated voltage for 60 minutes, the capacitor shall meet the limits same as Load Life.                                                                                                                                                                             |                 |                               |                    |                                  |                           |                                   |     |           |      |      |      |      |      |      |           |   |   |   |   |   |   |

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**CINETECH**  
SYMBOL OF QUALITY

### Diagram of Dimensions



| D | 10  | 13 | 16  | 18 |
|---|-----|----|-----|----|
| F | 5.0 |    | 7.5 |    |
| d | 0.6 |    | 0.8 |    |

### Case Size

Max ripple current: mA rms at 105°C. 120Hz (DxL mm)

| W.V     | 160   |        | 200   |        | 250   |        | 350   |        | 400   |        | 450   |        |
|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| $\mu F$ | Size  | Ripple | Size  | Ripple | Size  | Ripple | Size  | Ripple | Size  | Ripple | Size  | Ripple |
| 6.8     |       |        |       |        |       |        | 10x16 | 110    | 10x16 | 110    | 10x21 | 75     |
| 10      | 10x16 | 125    | 10x16 | 125    | 10x21 | 140    | 10x21 | 140    | 10x21 | 140    | 13x21 | 160    |
| 22      | 10x21 | 250    | 10x21 | 250    | 13x21 | 300    | 13x21 | 175    | 13x26 | 215    | 16x26 | 280    |
| 33      | 10x21 | 250    | 13x21 | 300    | 13x21 | 300    | 16x21 | 250    | 16x26 | 320    | 16x32 | 350    |
| 47      | 13x21 | 330    | 13x21 | 330    | 13x26 | 360    | 16x26 | 330    | 16x32 | 440    | 18x32 | 440    |
| 68      | 13x26 | 380    | 13x26 | 380    | 16x26 | 460    | 16x32 | 425    | 18x32 | 500    |       |        |
| 100     | 16x26 | 560    | 16x26 | 560    | 16x32 | 600    |       |        |       |        |       |        |
| 150     | 16x32 | 680    | 16x32 | 680    | 18x32 | 750    |       |        |       |        |       |        |
| 220     | 16x32 | 700    | 18x32 | 850    |       |        |       |        |       |        |       |        |