

Datasheet

Aluminium Electrolytic Capacitor, LHK



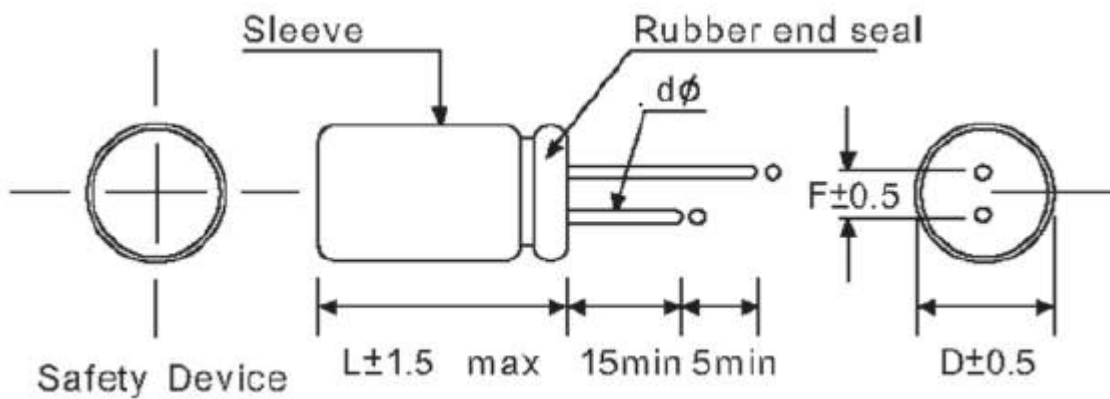
Specifications:

| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----------------------|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Operating Temperature Range | -40 to +105°C | -25 to +105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 100 VDC | 160 to 450 VDC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Range | 0.1 to 15000 µF | 0.47 to 470 µF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ± 20% (120Hz, +20°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current (+20°C max.) | I < 0.01 CV or 3 (µA) After 1 minute whichever is greater measured with rated working voltage applied | I < 0.03 CV or 3(µA) After 1 minute with rated working voltage applied | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | <table border="1"> <thead> <tr> <th>Working Voltage (VDC)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>D.F. (%) max.</td> <td>23</td> <td>20</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>10</td> <td>10</td> <td>15</td> <td>15</td> <td>16</td> <td>20</td> <td>20</td> <td>20</td> </tr> </tbody> </table> | | | | | | | | | | | | | | | Working Voltage (VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | D.F. (%) max. | 23 | 20 | 16 | 14 | 12 | 10 | 10 | 10 | 15 | 15 | 16 | 20 | 20 | 20 |
| | Working Voltage (VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D.F. (%) max. | 23 | 20 | 16 | 14 | 12 | 10 | 10 | 10 | 15 | 15 | 16 | 20 | 20 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| For capacitance > 1000µ F, add 2% per another 1000µ (+20°C at 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Working Voltage (VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Z (-25°C) Z (+20°C) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 5 | 6 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z (-40°C) Z (+20°C) | 8 | 6 | 4 | 4 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Load Life | Test Conditions: Duration time: 1000Hrs Ambient temperature: +105°C Applied voltage: Rated DC working voltage After test requirements : ≤ 30% of the initial measured value Dissipation Factor: ≤ 200% of the initial specified value Leakage Current: ≤ the initial specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life | Test Conditions: Duration time: 1000Hrs Ambient temperature: +105°C Applied voltage: None After test requirements at +20°C: Same limits as load life Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Features:

- Used in communication equipment's, switching power supply, etc.
- Safety vent construction design

Diagram of Dimensions:



| | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Dφ | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 | 25 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10 | 12 |
| dφ | 0.5 | | 0.6 | | 0.8 | | 1.0 | | |

Ripple Current & Temperature

| | | | | | |
|------------------|------|------|------|------|------|
| Temperature (°C) | 45 | 60 | 70 | 85 | 105 |
| Multiplier | 2.10 | 1.90 | 1.65 | 1.40 | 1.00 |

Ripple Current & Frequency Multiplier

| | | | | | | | |
|------------|--------------|--------|-----|------|------|------|---------|
| CAP(μF)/Hz | | 50(60) | 120 | 400 | 1K | 10K | 50-100K |
| Multiplier | CAP≤10 | 0.8 | 1.0 | 1.30 | 1.45 | 1.65 | 1.70 |
| | 10<CAP≤100 | 0.8 | 1.0 | 1.23 | 1.36 | 1.48 | 1.53 |
| | 100<CAP≤1000 | 0.8 | 1.0 | 1.16 | 1.25 | 1.35 | 1.38 |
| | 1000<CAP | 0.8 | 1.0 | 1.11 | 1.18 | 1.25 | 1.28 |