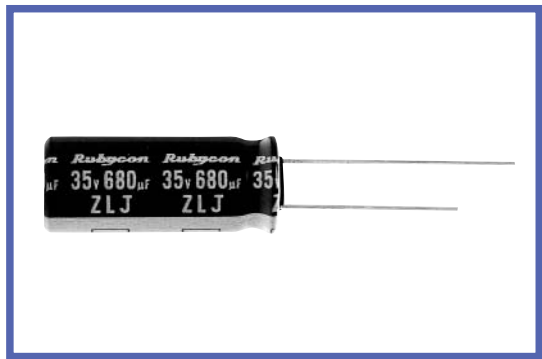


ZLJ SERIES
105°C Miniaturized, Long Life, Low impedance, High ripple.
◆ FEATURES

- Load Life : 105°C 7000~10000hours.
- RoHS compliance


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------|--|-----------|-----------------|--------------------|--|------------------|------|-----------------|------------------------------------|----------------|------|------------------|---|-----------|-------|---|---|-------------------|--|
| Category Temperature Range | -40~+105°C | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 10~50V.DC | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | I=0.01CV or 3 µA whichever is greater. (After 2 minutes) I=Leakage Current(µA) C=Rated Capacitance(µF) V=Rated Voltage(V) | | | | | | | | | | | | | | | | | | | | |
| (tanδ) Dissipation Factor(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table> <p>(20°C, 120Hz)</p> <p>When nominal capacitance is over 1000 µF, tan δ shall be added 0.02 to the listed value with increase of every 1000 µF.</p> | Rated Voltage (V) | 10 | 16 | 25 | 35 | 50 | tan δ | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | | | | | | | | |
| Rated Voltage (V) | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | |
| tan δ | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | | | | | | | | | | | | | | | | |
| Endurance | <p>After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.</p> <table border="1"> <thead> <tr> <th>Capacitance Change</th> <th>Within ±25% of the initial value.(10V: ±30%)</th> <th>Case Size</th> <th>Life Time (hrs)</th> </tr> </thead> <tbody> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>5×11,6.3×11</td> <td>7000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>8×11.5,10×12.5</td> <td>9000</td> </tr> <tr> <td></td> <td></td> <td>8×16,8×20</td> <td>10000</td> </tr> <tr> <td></td> <td></td> <td>10×16,10×20,10×25</td> <td></td> </tr> </tbody> </table> | Capacitance Change | Within ±25% of the initial value.(10V: ±30%) | Case Size | Life Time (hrs) | Dissipation Factor | Not more than 200% of the specified value. | 5×11,6.3×11 | 7000 | Leakage Current | Not more than the specified value. | 8×11.5,10×12.5 | 9000 | | | 8×16,8×20 | 10000 | | | 10×16,10×20,10×25 | |
| Capacitance Change | Within ±25% of the initial value.(10V: ±30%) | Case Size | Life Time (hrs) | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | 5×11,6.3×11 | 7000 | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | 8×11.5,10×12.5 | 9000 | | | | | | | | | | | | | | | | | | |
| | | 8×16,8×20 | 10000 | | | | | | | | | | | | | | | | | | |
| | | 10×16,10×20,10×25 | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <p>(120Hz)</p> | Rated Voltage (V) | 10 | 16 | 25 | 35 | 50 | Z(-25°C)/Z(20°C) | 2 | 2 | 2 | 2 | 2 | Z(-40°C)/Z(20°C) | 3 | 3 | 3 | 3 | 3 | | |
| Rated Voltage (V) | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |

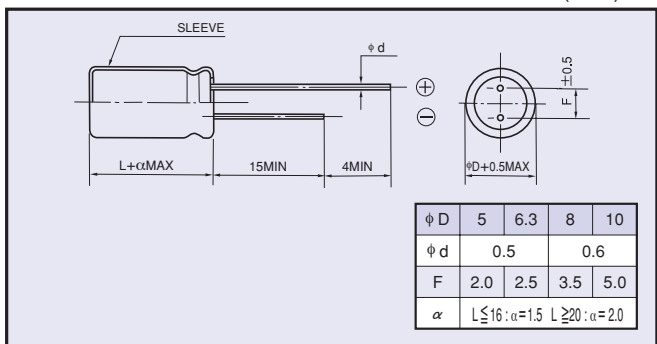
◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

| Frequency (Hz) | | 120 | 1k | 10k | 100k ≤ |
|----------------|-------------|------|------|------|--------|
| Coefficient | 27 µF | 0.42 | 0.70 | 0.90 | 1.00 |
| | 47~270 µF | 0.50 | 0.73 | 0.92 | 1.00 |
| | 330~680 µF | 0.55 | 0.77 | 0.94 | 1.00 |
| | 820~1800 µF | 0.60 | 0.80 | 0.96 | 1.00 |
| | 2200 µF | 0.70 | 0.85 | 0.98 | 1.00 |

◆ DIMENSIONS

(mm)


◆ PART NUMBER

| | | | | | | |
|---------------|--------|-------------------|-----------------------|--------|--------------|-----------|
| □□□ | ZLJ | □□□□□ | □ | □□□ | □□ | DXL |
| Rated Voltage | Series | Rated Capacitance | Capacitance Tolerance | Option | Lead Forming | Case Size |

◆ STANDARD SIZE

| Rated Voltage (V·DC) | Rated capacitance (μF) | Size φ D×L(mm) | Rated ripple current (mA r.m.s./105°C, 100kHz) | Impedance(ΩMAX) | |
|-------------------------|------------------------|-------------------|---|-----------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 10 (1A) | 150 | 5×11 | 450 | 0.40 | 1.2 |
| | 330 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 560 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 680 | 8×16 | 1600 | 0.059 | 0.18 |
| | 820 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 1000 | 8×20 | 1960 | 0.041 | 0.13 |
| | 1200 | 10×16 | 2000 | 0.038 | 0.12 |
| | 1800 | 10×20 | 2500 | 0.028 | 0.084 |
| | 2200 | 10×25 | 2900 | 0.024 | 0.072 |
| 16 (1C) | 120 | 5×11 | 450 | 0.40 | 1.2 |
| | 270 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 470 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 560 | 8×16 | 1600 | 0.059 | 0.18 |
| | 680 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 820 | 8×20 | 1960 | 0.041 | 0.13 |
| | 1000 | 10×16 | 2000 | 0.038 | 0.12 |
| | 1500 | 10×20 | 2500 | 0.028 | 0.084 |
| | 1800 | 10×25 | 2900 | 0.024 | 0.072 |
| 25 (1E) | 68 | 5×11 | 450 | 0.40 | 1.2 |
| | 150 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 330 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 390 | 8×16 | 1600 | 0.059 | 0.18 |
| | 470 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 560 | 8×20 | 1960 | 0.041 | 0.13 |
| | 680 | 10×16 | 2000 | 0.038 | 0.12 |
| | 1000 | 10×20 | 2500 | 0.028 | 0.084 |
| | 1200 | 10×25 | 2900 | 0.024 | 0.072 |
| 35 (1V) | 47 | 5×11 | 450 | 0.40 | 1.2 |
| | 100 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 180 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 220 | 8×16 | 1600 | 0.059 | 0.18 |
| | 270 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 330 | 8×20 | 1960 | 0.041 | 0.13 |
| | 390 | 10×16 | 2000 | 0.038 | 0.12 |
| | 560 | 10×20 | 2500 | 0.028 | 0.084 |
| | 680 | 10×25 | 2900 | 0.024 | 0.072 |
| 50 (1H) | 27 | 5×11 | 310 | 0.48 | 1.5 |
| | 56 | 6.3×11 | 500 | 0.22 | 0.66 |
| | 100 | 8×11.5 | 950 | 0.12 | 0.36 |
| | 120 | 8×16 | 1230 | 0.082 | 0.25 |
| | 150 | 10×12.5 | 1280 | 0.073 | 0.22 |
| | 180 | 8×20 | 1580 | 0.058 | 0.18 |
| | 220 | 10×16 | 1650 | 0.053 | 0.16 |
| | 330 | 10×20 | 2060 | 0.038 | 0.12 |
| | 390 | 10×25 | 2420 | 0.032 | 0.10 |