

YXJ SERIES
105°C Miniaturized, Long Life

*Load Life : 105°C 4000~10000 hours.


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---------------------|--|-----------|------|----------------|------|-----------|-----------|-----|---------------|--------------------|--|------|------|------|------|-----------------|------------------------------------|------------------|------|------|---|-------|------|-------|---|---|------------------|---|---|---|---|---|---|---|---|
| Category Temperature Range | -40~+105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | I=0.01CV or 3µA whichever is greater.(After 2 minutes) I=Leakage Current(µA) C=Capacitance(µF) V=Rated Voltage(Vdc) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) (tanδ) | <table border="1"> <thead> <tr> <th>Rated 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> </tr> </thead> <tbody> <tr> <td>(20°C, 120Hz)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table> <p>When capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.</p> | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | (20°C, 120Hz) | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | | | | | | | | | | | | | | | | | | |
| Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (20°C, 120Hz) | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | <p>After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <thead> <tr> <th rowspan="2">Capacitance Change</th> <th rowspan="2">Within ±25% of the initial value.(6.3V:±30%)</th> <th colspan="2">Case Size</th> <th colspan="2">Life Time(hrs)</th> </tr> <tr> <th>6.3~10Vdc</th> <th>16~100Vdc</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>φD=5</td> <td>4000</td> <td>5000</td> <td></td> </tr> <tr> <td rowspan="2">Leakage Current</td> <td rowspan="2">Not more than the specified value.</td> <td>φD=6.3,8</td> <td>6000</td> <td>7000</td> <td></td> </tr> <tr> <td>φD≥10</td> <td>8000</td> <td>10000</td> <td></td> </tr> </tbody> </table> | Capacitance Change | Within ±25% of the initial value.(6.3V:±30%) | Case Size | | Life Time(hrs) | | 6.3~10Vdc | 16~100Vdc | | | Dissipation Factor | Not more than 200% of the specified value. | φD=5 | 4000 | 5000 | | Leakage Current | Not more than the specified value. | φD=6.3,8 | 6000 | 7000 | | φD≥10 | 8000 | 10000 | | | | | | | | | | | |
| Capacitance Change | Within ±25% of the initial value.(6.3V:±30%) | | | Case Size | | Life Time(hrs) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 6.3~10Vdc | 16~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | φD=5 | 4000 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | φD=6.3,8 | 6000 | 7000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | φD≥10 | 8000 | 10000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <thead> <tr> <th>Rated 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> </tr> </thead> <tbody> <tr> <td>(120Hz)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>2</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>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | (120Hz) | | | | | | | | | Z(-25°C)/Z(20°C) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | Z(-40°C)/Z(20°C) | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 |
| Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

◆ MULTIPLIER FOR RIPPLE CURRENT

(6.3Vdc~50Vdc)

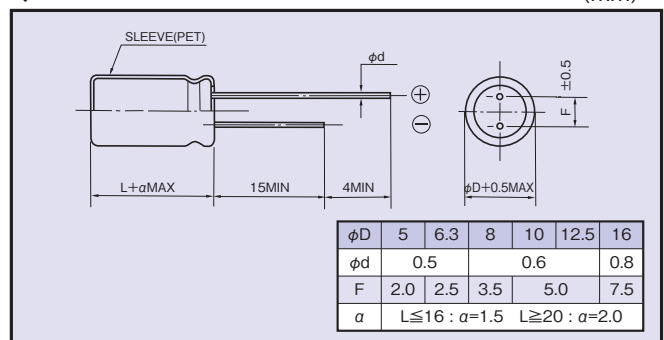
| Frequency (Hz) | | 120 | 1k | 10k | 100k≤ |
|----------------|--------------|------|------|------|-------|
| Coefficient | 1µF | 0.35 | 0.60 | 0.80 | 1.00 |
| | 2.2~10µF | 0.42 | 0.60 | 0.80 | 1.00 |
| | 22~47µF | 0.55 | 0.75 | 0.90 | 1.00 |
| | 100~330µF | 0.70 | 0.85 | 0.95 | 1.00 |
| | 470~1000µF | 0.75 | 0.90 | 0.98 | 1.00 |
| | 2200~15000µF | 0.80 | 0.95 | 1.00 | 1.00 |

(63Vdc~100Vdc)

| Frequency (Hz) | 120 | 1k | 10k | 100k≤ |
|----------------|------|------|------|-------|
| Coefficient | 0.42 | 0.60 | 0.80 | 1.00 |

◆ DIMENSIONS

(mm)


◆ OPTION

| | Code |
|------------|-------|
| PET Sleeve | Blank |

◆ PART NUMBER

| | | | | | | |
|---------------|--------|-------------|-----------------------|--------|--------------|-----------|
| □□□ | YXJ | □□□□□ | M | □□□ | □□ | D×L |
| Rated Voltage | Series | Capacitance | Capacitance Tolerance | Option | Lead Forming | Case Size |

◆STANDARD SIZE

| Rated Voltage (Vdc) | Capacitance (μF) | Size φD×L(mm) | Rated ripple current (mA r.m.s./105°C, 100kHz) | Impedance (Ω MAX) | |
|---------------------|------------------|---------------|--|-------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 6.3 | 100 | 5×11 | 150 | 0.90 | 3.6 |
| | 220 | 5×11 | 250 | 0.40 | 1.2 |
| | 330 | 6.3×11 | 340 | 0.22 | 0.87 |
| | 470 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 1000 | 8×11.5 | 640 | 0.13 | 0.52 |
| | 2200 | 10×16 | 1300 | 0.062 | 0.25 |
| | 3300 | 10×20 | 1400 | 0.046 | 0.18 |
| | 4700 | 12.5×25 | 2230 | 0.032 | 0.11 |
| | 6800 | 12.5×25 | 2230 | 0.032 | 0.11 |
| | 10000 | 16×25 | 2930 | 0.021 | 0.060 |
| 15000 | 16×35.5 | 3610 | 0.015 | 0.044 | |
| 10 | 100 | 5×11 | 150 | 0.90 | 3.6 |
| | 220 | 5×11 | 250 | 0.40 | 1.2 |
| | 330 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 470 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 1000 | 10×12.5 | 865 | 0.080 | 0.32 |
| | 2200 | 10×20 | 1400 | 0.046 | 0.18 |
| | 3300 | 12.5×20 | 1900 | 0.041 | 0.14 |
| | 4700 | 12.5×25 | 2230 | 0.032 | 0.11 |
| | 6800 | 16×25 | 2930 | 0.021 | 0.060 |
| 10000 | 16×31.5 | 3450 | 0.019 | 0.056 | |
| 16 | 47 | 5×11 | 250 | 0.40 | 1.2 |
| | 100 | 5×11 | 250 | 0.40 | 1.2 |
| | 220 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 330 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 470 | 8×11.5 | 640 | 0.13 | 0.52 |
| | 1000 | 10×16 | 1210 | 0.062 | 0.25 |
| | 2200 | 12.5×20 | 1900 | 0.041 | 0.14 |
| | 3300 | 12.5×25 | 2230 | 0.032 | 0.11 |
| | 4700 | 16×25 | 2930 | 0.021 | 0.060 |
| 6800 | 16×31.5 | 3450 | 0.019 | 0.056 | |
| 25 | 33 | 5×11 | 250 | 0.40 | 1.2 |
| | 47 | 5×11 | 250 | 0.40 | 1.2 |
| | 100 | 5×11 | 250 | 0.40 | 1.2 |
| | 220 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 330 | 8×11.5 | 640 | 0.13 | 0.52 |
| | 470 | 10×12.5 | 865 | 0.080 | 0.32 |
| | 1000 | 10×20 | 1400 | 0.046 | 0.18 |
| | 2200 | 12.5×25 | 2230 | 0.032 | 0.11 |
| | 3300 | 16×25 | 2930 | 0.021 | 0.060 |
| 4700 | 16×31.5 | 3450 | 0.019 | 0.056 | |
| 35 | 33 | 5×11 | 250 | 0.40 | 1.2 |
| | 47 | 5×11 | 250 | 0.40 | 1.2 |
| | 100 | 6.3×11 | 400 | 0.22 | 0.87 |
| | 220 | 8×11.5 | 640 | 0.13 | 0.52 |
| | 330 | 10×12.5 | 865 | 0.080 | 0.32 |
| | 470 | 10×16 | 1210 | 0.062 | 0.25 |
| | 1000 | 12.5×20 | 1900 | 0.041 | 0.14 |
| | 2200 | 16×25 | 2930 | 0.021 | 0.060 |
| 3300 | 16×31.5 | 3450 | 0.019 | 0.056 | |

| Rated Voltage (Vdc) | Capacitance (μF) | Size φD×L(mm) | Rated ripple current (mA r.m.s./105°C, 100kHz) | Impedance (Ω MAX) | |
|---------------------|------------------|---------------|--|-------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 50 | 1 | 5×11 | 30 | 4.0 | 8.0 |
| | 2.2 | 5×11 | 43 | 2.5 | 6.0 |
| | 3.3 | 5×11 | 53 | 2.2 | 5.6 |
| | 4.7 | 5×11 | 88 | 1.9 | 5.0 |
| | 10 | 5×11 | 100 | 1.5 | 4.0 |
| | 22 | 5×11 | 180 | 0.70 | 2.8 |
| | 33 | 5×11 | 250 | 0.70 | 2.8 |
| | 47 | 6.3×11 | 295 | 0.30 | 1.2 |
| | 100 | 8×11.5 | 555 | 0.17 | 0.68 |
| | 220 | 10×16 | 1050 | 0.084 | 0.34 |
| | 330 | 10×20 | 1220 | 0.060 | 0.24 |
| | 470 | 12.5×20 | 1660 | 0.045 | 0.15 |
| | 1000 | 16×25 | 2730 | 0.032 | 0.096 |
| | 2200 | 16×35.5 | 3150 | 0.019 | 0.057 |
| 63 | 10 | 5×11 | 173 | 0.88 | 3.5 |
| | 22 | 5×11 | 173 | 0.88 | 3.5 |
| | 33 | 6.3×11 | 278 | 0.35 | 1.4 |
| | 47 | 6.3×11 | 278 | 0.35 | 1.4 |
| | 100 | 10×12.5 | 725 | 0.15 | 0.60 |
| | 220 | 10×20 | 1200 | 0.078 | 0.31 |
| | 330 | 12.5×20 | 1570 | 0.060 | 0.19 |
| | 470 | 12.5×25 | 1990 | 0.043 | 0.14 |
| | 1000 | 16×25 | 2730 | 0.032 | 0.096 |
| 100 | 1 | 5×11 | 20 | 4.5 | 15.0 |
| | 2.2 | 5×11 | 30 | 3.0 | 13.0 |
| | 3.3 | 5×11 | 40 | 2.7 | 11.0 |
| | 4.7 | 5×11 | 65 | 2.5 | 10.0 |
| | 10 | 6.3×11 | 267 | 0.57 | 2.3 |
| | 22 | 6.3×11 | 267 | 0.57 | 2.3 |
| | 33 | 8×11.5 | 462 | 0.36 | 1.4 |
| | 47 | 8×16 | 585 | 0.25 | 1.0 |
| | 100 | 10×20 | 1040 | 0.12 | 0.52 |
| | 220 | 12.5×25 | 1620 | 0.060 | 0.23 |
| | 330 | 16×25 | 2210 | 0.044 | 0.16 |