

YXF SERIES
105°C Long Life

•Load Life : 105°C 4000~10000 hours.

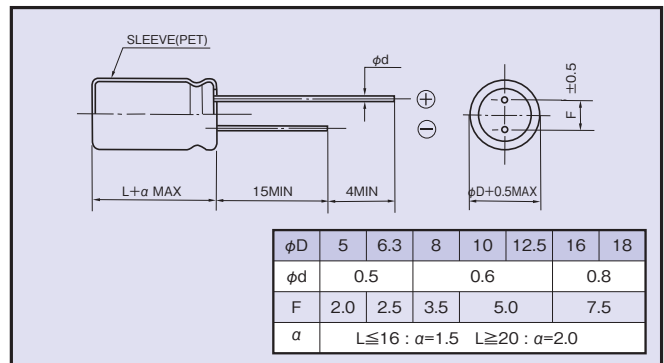
RoHS compliance


◆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"> <tr> <td>Rated Voltage (Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>(20°C,120Hz)</td> </tr> <tr> <td>tanδ</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> <td></td> </tr> </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) | tanδ | 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) | | | | | | | | | | | | | | | | | | | | | | |
| tanδ | 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"> <tr> <td>Capacitance Change</td> <td>Within ±25% of the initial value.</td> <td rowspan="3"> <table border="1"> <tr> <td>Case Size</td> <td colspan="2">Life Time (hrs)</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> </td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> | Capacitance Change | Within ±25% of the initial value. | <table border="1"> <tr> <td>Case Size</td> <td colspan="2">Life Time (hrs)</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> | Case Size | Life Time (hrs) | | | 6.3~10Vdc | 16~100Vdc | φD≤6.3 | 4000 | 5000 | φD=8,10 | 6000 | 7000 | φD≥12.5 | 8000 | 10000 | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | | | | | | | |
| Capacitance Change | Within ±25% of the initial value. | <table border="1"> <tr> <td>Case Size</td> <td colspan="2">Life Time (hrs)</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> | Case Size | | Life Time (hrs) | | | 6.3~10Vdc | 16~100Vdc | φD≤6.3 | 4000 | 5000 | φD=8,10 | 6000 | 7000 | φD≥12.5 | 8000 | 10000 | | | | | | | | | | | | | |
| Case Size | Life Time (hrs) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6.3~10Vdc | | 16~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD≤6.3 | 4000 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD=8,10 | 6000 | 7000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD≥12.5 | 8000 | 10000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>(120Hz)</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> <td></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> <td></td> </tr> </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

| Frequency (Hz) | | 120 | 1k | 10k | 100k≤ |
|----------------|--------------|------|------|------|-------|
| Coefficient | 1uF | 0.35 | 0.60 | 0.80 | 1.00 |
| | 2.2~10uF | 0.42 | 0.60 | 0.80 | 1.00 |
| | 22~33uF | 0.55 | 0.75 | 0.90 | 1.00 |
| | 47~330uF | 0.70 | 0.85 | 0.95 | 1.00 |
| | 470~1000uF | 0.75 | 0.90 | 0.98 | 1.00 |
| | 2200~15000uF | 0.80 | 0.95 | 1.00 | 1.00 |

◆DIMENSIONS (mm)

◆PART NUMBER

| | | | | | | |
|---------------|--------|-------------|-----------------------|--------|--------------|-----------|
| □□□ | YXF | □□□□□ | M | □□□ | □□ | DxL |
| Rated Voltage | Series | Capacitance | Capacitance Tolerance | Option | Lead Forming | Case Size |

◆OPTION

| | |
|------------|------|
| PET Sleeve | Code |
| | EFC |

◆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 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 330 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 470 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 1000 | 10×12.5 | 580 | 0.16 | 0.65 |
| | 2200 | 12.5×20 | 1300 | 0.062 | 0.21 |
| | 3300 | 12.5×20 | 1300 | 0.062 | 0.21 |
| | 4700 | 16×25 | 1850 | 0.034 | 0.096 |
| | 6800 | 16×25 | 1850 | 0.034 | 0.096 |
| | 10000 | 16×31.5 | 2000 | 0.029 | 0.087 |
| 15000 | 18×35.5 | 2200 | 0.025 | 0.058 | |
| 10 | 100 | 5×11 | 150 | 0.90 | 3.6 |
| | 220 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 330 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 470 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 1000 | 10×16 | 770 | 0.12 | 0.46 |
| | 2200 | 12.5×20 | 1300 | 0.062 | 0.21 |
| | 3300 | 12.5×25 | 1650 | 0.048 | 0.16 |
| | 4700 | 16×25 | 1850 | 0.034 | 0.096 |
| | 6800 | 16×31.5 | 2000 | 0.029 | 0.087 |
| | 10000 | 18×35.5 | 2200 | 0.025 | 0.058 |
| 16 | 47 | 5×11 | 150 | 0.90 | 3.6 |
| | 100 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 220 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 330 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 470 | 10×12.5 | 580 | 0.16 | 0.65 |
| | 1000 | 10×20 | 1050 | 0.078 | 0.30 |
| | 2200 | 12.5×25 | 1650 | 0.048 | 0.16 |
| | 3300 | 16×25 | 1850 | 0.034 | 0.096 |
| | 4700 | 16×31.5 | 2000 | 0.029 | 0.087 |
| | 6800 | 18×35.5 | 2200 | 0.025 | 0.058 |
| 25 | 33 | 5×11 | 150 | 0.90 | 3.6 |
| | 47 | 5×11 | 150 | 0.90 | 3.6 |
| | 100 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 220 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 330 | 10×12.5 | 580 | 0.16 | 0.65 |
| | 470 | 10×16 | 770 | 0.12 | 0.46 |
| | 1000 | 12.5×20 | 1300 | 0.062 | 0.21 |
| | 2200 | 16×25 | 1850 | 0.034 | 0.096 |
| | 3300 | 16×31.5 | 2000 | 0.029 | 0.087 |
| | 4700 | 18×35.5 | 2200 | 0.025 | 0.058 |
| 35 | 33 | 5×11 | 150 | 0.90 | 3.6 |
| | 47 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 100 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 220 | 10×12.5 | 580 | 0.16 | 0.65 |
| | 330 | 10×16 | 770 | 0.12 | 0.46 |
| | 470 | 10×20 | 1050 | 0.078 | 0.30 |
| | 1000 | 12.5×25 | 1650 | 0.048 | 0.16 |
| | 2200 | 16×31.5 | 2000 | 0.029 | 0.087 |
| 3300 | 18×35.5 | 2200 | 0.025 | 0.058 | |

| 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 | 150 | 0.90 | 3.6 |
| | 33 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 47 | 6.3×11 | 250 | 0.40 | 1.6 |
| | 100 | 8×11.5 | 400 | 0.25 | 1.0 |
| | 220 | 10×16 | 770 | 0.12 | 0.46 |
| | 330 | 10×20 | 1050 | 0.078 | 0.30 |
| | 470 | 12.5×20 | 1300 | 0.062 | 0.21 |
| | 1000 | 16×25 | 1850 | 0.034 | 0.096 |
| | 2200 | 18×35.5 | 2200 | 0.025 | 0.058 |
| 63 | 10 | 5×11 | 87 | 2.3 | 9.3 |
| | 22 | 6.3×11 | 140 | 1.3 | 5.2 |
| | 33 | 6.3×11 | 140 | 1.2 | 5.0 |
| | 47 | 8×11.5 | 210 | 0.63 | 2.8 |
| | 100 | 10×12.5 | 300 | 0.43 | 1.8 |
| | 220 | 10×20 | 520 | 0.21 | 0.84 |
| | 330 | 12.5×20 | 660 | 0.16 | 0.64 |
| | 470 | 12.5×25 | 750 | 0.12 | 0.45 |
| | 1000 | 16×31.5 | 1390 | 0.054 | 0.20 |
| | 100 | 1 | 5×11 | 20 | 4.5 |
| 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 | 140 | 1.2 | 5.0 |
| 22 | | 8×11.5 | 160 | 0.63 | 2.8 |
| 33 | | 10×12.5 | 230 | 0.43 | 1.8 |
| 47 | | 10×16 | 290 | 0.31 | 1.5 |
| 100 | | 12.5×20 | 430 | 0.16 | 0.64 |
| 220 | | 16×25 | 900 | 0.073 | 0.27 |
| 330 | 16×25 | 900 | 0.073 | 0.27 | |