

YXJ シリーズ
SERIES

105°C 4,000~10,000 時間、小形化、長寿命品
105°C 4,000~10,000 hours, Miniaturized, Long Life

RoHS
Compliance



◆規格表/SPECIFICATIONS

| 項目 Items | 特 性 Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------------------------|---|------------------------------|--|-------------------------|---|---|---------------------|----------------------------|-----|---------------|---------------------|------|------|------|----------|------|------|-------|------|-------|---------------------|---|---|---|---|---|---|---|---|--|
| カテゴリ温度範囲 Category Temperature Range | -40 ~ +105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 定格電圧範囲 Rated Voltage Range | 6.3 ~ 100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 静電容量許容差 Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current (MAX) | $I = 0.01CV$ 又は $3\mu A$ のいずれか大なる値以下 (定格電圧印加2分後) $I = 0.01CV$ or $3\mu A$ whichever is greater. (After 2 minutes) I = 漏れ電流(μA) C = 静電容量(μF) V = 定格電圧(Vdc) I = Leakage Current C = Capacitance V = Rated Voltage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 損失角の正接 (tan δ) Dissipation Factor (MAX) | <table border="1"> <tr> <td>定格電圧(Vdc) Rated Voltage</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>tan δ</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>1000 μF を超えるものは 1000 μF 増す毎に上記の表に 0.02 を加えた値とする。 When capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.</p> | | 定格電圧(Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | (20°C, 120Hz) | tan δ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | | | | | | | | | | | |
| 定格電圧(Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | |
| tan δ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | | | | | | | | | | | | | | | | | | | | | | | | |
| 耐 久 性 Endurance | 105°C 中で右表の時間定格電圧(リップル重畳)印加後、下記の項目を満足すること。 After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>静電容量変化率 Capacitance Change</td> <td>初期値の ±25% 以内 (6.3~10Vdc : ±30%) Within ±25% of the initial value (6.3~10Vdc : ±30%).</td> </tr> <tr> <td>損失角の正接 Dissipation Factor</td> <td>規定値の 200% 以下 Not more than 200% of the specified value.</td> </tr> <tr> <td>漏れ電流 Leakage Current</td> <td>規格値以下 Not more than the specified value.</td> </tr> </table> | 静電容量変化率 Capacitance Change | 初期値の ±25% 以内 (6.3~10Vdc : ±30%) Within ±25% of the initial value (6.3~10Vdc : ±30%). | 損失角の正接 Dissipation Factor | 規定値の 200% 以下 Not more than 200% of the specified value. | 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | <table border="1"> <tr> <td rowspan="2">ケースサイズ Case Size</td> <td colspan="2">時間 (hours) Time (hours)</td> </tr> <tr> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD=5</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=6.3,8</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥10</td> <td>8000</td> <td>10000</td> </tr> </table> | ケースサイズ Case Size | 時間 (hours) Time (hours) | | 6.3~10Vdc | 16~100Vdc | φD=5 | 4000 | 5000 | φD=6.3,8 | 6000 | 7000 | φD≥10 | 8000 | 10000 | | | | | | | | | | |
| 静電容量変化率 Capacitance Change | 初期値の ±25% 以内 (6.3~10Vdc : ±30%) Within ±25% of the initial value (6.3~10Vdc : ±30%). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 損失角の正接 Dissipation Factor | 規定値の 200% 以下 Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ケースサイズ Case Size | 時間 (hours) Time (hours) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6.3~10Vdc | 16~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD=5 | 4000 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD=6.3,8 | 6000 | 7000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φD≥10 | 8000 | 10000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 低温特性 Low Temperature Stability (インピーダンス比) Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧(Vdc) Rated Voltage</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> | | 定格電圧(Vdc) Rated Voltage | 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 | |
| 定格電圧(Vdc) Rated Voltage | 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 | | | | | | | | | | | | | | | | | | | | | | | | |

◆呼称方法/PART NUMBER

□□□ YXJ □□□□□ M □□□ □□ φD×L
 定格電圧 シリーズ名 静電容量 静電容量許容差 副記号 リード加工記号 ケースサイズ
 Rated Voltage Series Capacitance Capacitance Tolerance Option Lead Forming Case Size

◆副記号/OPTION

標準品の副記号はブランクとなります。
Option code for Standard item is blank.

◆リップル電流補正係数/MULTIPLIER FOR RIPPLE CURRENT

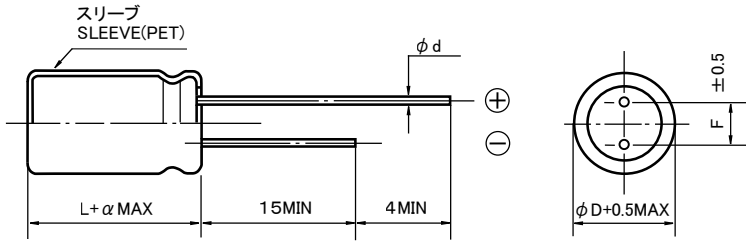
6.3 ~ 50Vdc

| 周波数 (Hz) Frequency | | 120 | 1k | 10k | 100k≤ |
|-----------------------|---------------|------|------|------|-------|
| 係数 Coefficient | 1 μF | 0.35 | 0.60 | 0.80 | 1.00 |
| | 2.2~10 μF | 0.42 | 0.60 | 0.80 | 1.00 |
| | 22~47 μF | 0.55 | 0.75 | 0.90 | 1.00 |
| | 100~330 μF | 0.70 | 0.85 | 0.95 | 1.00 |
| | 470~1800 μF | 0.75 | 0.90 | 0.98 | 1.00 |
| | 2200~22000 μF | 0.80 | 0.95 | 1.00 | 1.00 |

63 ~ 100Vdc

| 周波数 (Hz) Frequency | | 120 | 1k | 10k | 100k≤ |
|-----------------------|-----------|------|------|------|-------|
| 係数 Coefficient | 63~100Vdc | 0.42 | 0.60 | 0.80 | 1.00 |

◆寸法図/DIMENSIONS



| | (mm) | | | | | | |
|----|----------------------------------|-----|-----|-----|------|-----|----|
| φD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
| φd | 0.5 | | 0.6 | | | 0.8 | |
| F | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | |
| α | L ≤ 16: α = 1.5, L ≥ 20: α = 2.0 | | | | | | |

◆標準品一覧表/STANDARD SIZE

* 定格リプル電流 Rated Ripple Current (mA rms/ 105°C, 100kHz)

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φD X L (mm) | 定格リプル電流* Rated Ripple Current | インピーダンス 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 |
| | 10000 | 18×20 | 2860 | 0.026 | 0.078 |
| | 12000 | 16×31.5 | 3610 | 0.017 | 0.051 |
| | 12000 | 18×25 | 3140 | 0.019 | 0.057 |
| | 15000 | 16×35.5 | 3610 | 0.015 | 0.044 |
| 15000 | 18×31.5 | 4170 | 0.015 | 0.045 | |
| 18000 | 16×40 | 4080 | 0.013 | 0.039 | |
| 18000 | 18×35.5 | 4280 | 0.014 | 0.042 | |
| 22000 | 18×40 | 4550 | 0.012 | 0.036 | |
| 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 | 0.08 | 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 |
| | 6800 | 18×20 | 2860 | 0.026 | 0.078 |
| | 8200 | 18×25 | 3140 | 0.019 | 0.057 |
| | 10000 | 16×31.5 | 3450 | 0.019 | 0.056 |
| | 12000 | 16×35.5 | 4080 | 0.015 | 0.045 |
| | 15000 | 18×40 | 4550 | 0.012 | 0.036 |
| 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 |
| | 4700 | 18×20 | 2860 | 0.026 | 0.078 |
| | 5600 | 16×25 | 3060 | 0.017 | 0.051 |
| | 6800 | 16×31.5 | 3450 | 0.019 | 0.056 |
| | 8200 | 16×31.5 | 3610 | 0.017 | 0.051 |
| | 10000 | 16×35.5 | 4080 | 0.015 | 0.045 |
| 12000 | 16×40 | 4080 | 0.013 | 0.039 | |

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φD X L (mm) | 定格リプル電流* Rated Ripple Current | インピーダンス Impedance (Ω MAX) | |
|--------------------------------|-----------------------------|-----------------------------|----------------------------------|---------------------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 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 | 0.08 | 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 |
| | 3300 | 18×20 | 2860 | 0.026 | 0.078 |
| | 3900 | 16×25 | 3060 | 0.017 | 0.051 |
| | 4700 | 16×31.5 | 3450 | 0.019 | 0.056 |
| | 5600 | 16×35.5 | 4080 | 0.015 | 0.045 |
| | 6800 | 16×40 | 4080 | 0.013 | 0.039 |
| 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 | 0.08 | 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 |
| | 2200 | 18×20 | 2860 | 0.026 | 0.078 |
| | 2700 | 18×25 | 3140 | 0.019 | 0.057 |
| | 3300 | 16×31.5 | 3450 | 0.019 | 0.056 |
| | 3900 | 16×35.5 | 4080 | 0.015 | 0.045 |
| | 4700 | 16×40 | 4080 | 0.013 | 0.039 |
| | 50 | 1 | 5×11 | 30 | 4.0 |
| 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 | 0.7 | 2.8 |
| 33 | | 5×11 | 250 | 0.7 | 2.8 |
| 47 | | 6.3×11 | 295 | 0.3 | 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 |
| 1200 | | 16×25 | 2980 | 0.022 | 0.066 |
| 1200 | 18×20 | 2490 | 0.030 | 0.090 | |
| 1800 | 16×31.5 | 3150 | 0.019 | 0.057 | |
| 1800 | 18×25 | 3150 | 0.022 | 0.066 | |
| 2200 | 16×35.5 | 3150 | 0.019 | 0.057 | |
| 2200 | 18×31.5 | 3680 | 0.018 | 0.054 | |
| 2700 | 18×35.5 | 3800 | 0.014 | 0.042 | |
| 3300 | 18×40 | 4170 | 0.013 | 0.039 | |

■ = 生産中止予定品
Obsolete Products

□ = 新規設計非推奨品
Not Recommended for new Designs

◆標準品一覧表／STANDARD SIZE

* 定格リップル電流 Rated Ripple Current (mA rms/ 105°C, 100kHz)

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μ F) | 外形寸法 Size ϕ D X L(mm) | 定格リップル 電流* Rated Ripple Current | インピーダンス Impedance (Ω MAX) | |
|--------------------------------|-----------------------------------|----------------------------------|--|---|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 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 | 0.06 | 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 | 0.06 | 0.23 |
| 330 | 16×25 | 2210 | 0.044 | 0.16 | |

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