

YXJ series

105°C 4000~10000時間品 小形化 長寿命品  
Load Life : 105°C 4000~10000 hours, Miniaturized, Long Life



◆規格表/SPECIFICATIONS

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

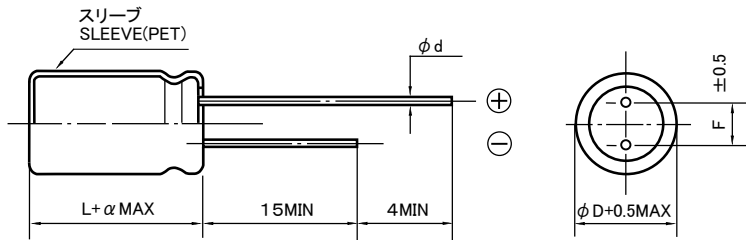
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◆リップル電流補正係数/MULTIPLIER FOR RIPPLE CURRENT

|                   |              | 6.3~50Vdc |      |      |       |  |
|-------------------|--------------|-----------|------|------|-------|--|
| Frequency (Hz)    |              | 120       | 1k   | 10k  | 100k≤ |  |
| 係数<br>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  |  |

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

◆寸法図/DIMENSIONS



(mm)

|          |   |     |     |     |      |     |
|----------|---|-----|-----|-----|------|-----|
| $\phi D$ | 5   | 6.3 | 8   | 10  | 12.5 | 16  |
| $\phi d$ | 0.5   |     | 0.6 |     |      | 0.8 |
| F        | 2.0   | 2.5 | 3.5 | 5.0 |      | 7.5 |
| $\alpha$ | L ≤ 16 : $\alpha = 1.5$ L ≥ 20 : $\alpha = 2.0$ |     |     |     |      |     |

◆標準品一覧表/STANDARD SIZE

Rated Ripple Current (mA r.m.s./105°C, 100kHz)

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>( $\mu F$ ) | 外形寸法<br>Size<br>$\phi D \times L$ (mm) | 定格リプル<br>電流<br>Rated Ripple<br>Current | インピーダンス( $\Omega$ MAX)<br>Impedance |               |
|--------------------------------|------------------------------------|--|--|-------------------------------------|---------------|
|                                |                                    |  |  | 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                                    | 0.08                                | 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         |
|                                | 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                                    | 0.08                                | 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         |
|                                | 4700                               | 16×31.5                                | 3450                                   | 0.019                               | 0.056         |

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>( $\mu F$ ) | 外形寸法<br>Size<br>$\phi D \times L$ (mm) | 定格リプル<br>電流<br>Rated Ripple<br>Current | インピーダンス( $\Omega$ MAX)<br>Impedance |               |
|--------------------------------|------------------------------------|--|--|-------------------------------------|---------------|
|                                |                                    |  |  | 20°C, 100kHz                        | -10°C, 100kHz |
| 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         |
|                                | 3300                               | 16×31.5                                | 3450                                   | 0.019                               | 0.056         |
|                                | 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                                   | 0.06                                | 0.24          |
| 470                            |                                    | 12.5×20                                | 1660                                   | 0.045                               | 0.15          |
| 1000                           |                                    | 16×25                                  | 2730                                   | 0.032                               | 0.096         |
| 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           |
| 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          |