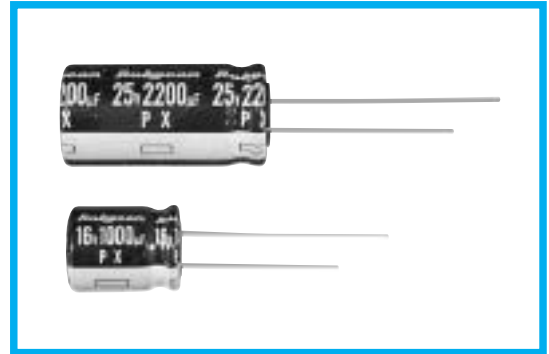


**PX SERIES**
**105°C Miniaturized**
**◆FEATURES**

- RoHS compliance.

**PX**

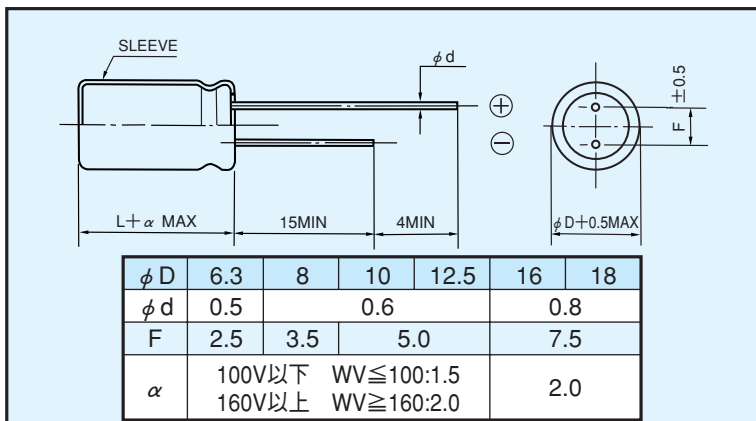
Low Impedance

**YXF, YXG, ZL, ZLH**

**◆SPECIFICATIONS**

| Items   | Characteristics  |  |  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|---|--|--|--|------|------|------|------|------|------|------|------|----------|-----------------|------|------|---------------|
| Category Temperature Range  | -55~+105°C   | -40~+105°C   | -25~+105°C   |      |      |      |      |      |      |      |      |          |                 |      |      |               |
| Rated Voltage Range   | 6.3~100V.DC  | 160~400V.DC  | 450V.DC  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
| Capacitance Tolerance   | ±20%(20°C, 120Hz)  |  |  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
| Leakage Current(MAX)  | 6.3~100V.DC  |  | 160~450V.DC  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|   | I=0.01CV or 3 μA whichever is greater.<br>(After 2 minutes application of rated voltage)   |  | CV ≤ 1000  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|   |  |  | CV > 1000  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|   |  | I=0.1CV+40 μA (1 minute)<br>I=0.03CV+15 μA (5 minutes) | I=0.04CV+100 μA (1 minute)<br>I=0.02CV+25 μA (5 minutes) |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|   |  | I=Leakage Current( μA)                                 | C=Rated Capacitance( μF)      V=Rated Voltage(V)         |      |      |      |      |      |      |      |      |          |                 |      |      |               |
| Dissipation Factor(MAX)<br>(tan δ)  | Rated Voltage (V)  | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100  | 160  | 200  | 250      | 350             | 400  | 450  | (20°C, 120Hz) |
|   | tan δ  | 0.28   | 0.24   | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 | 0.20 | 0.20 | 0.20     | 0.25            | 0.25 | 0.25 |               |
| When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |  |  |  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
| Endurance   | After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements. |  |  |      |      |      |      |      |      |      |      |          |                 |      |      |               |
|   | Capacitance Change   | Within ±25% of the initial value.                      |  |      |      |      |      |      |      |      |      | Case Dia | Life Time (hrs) |      |      |               |
|   | Dissipation Factor   | Not more than 200% of the specified value.             |  |      |      |      |      |      |      |      |      | φ D ≤ 8  | 1000            |      |      |               |
|   | Leakage Current  | Not more than the specified value.                     |  |      |      |      |      |      |      |      |      | φ D ≥ 10 | 2000            |      |      |               |
| Low Temperature Stability<br>Impedance Ratio(MAX)   | Rated Voltage (V)  | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100  | 160  | 200  | 250      | 350             | 400  | 450  | (120Hz)       |
|   | Z(-25°C)/Z(20°C)   | 5  | 4  | 3    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 4        | 6               | 6    | 7    |               |
|   | Z(-40°C)/Z(20°C)   | 10   | 8  | 6    | 4    | 3    | 3    | 3    | 3    | 4    | 4    | 8        | 8               | 10   | -    |               |

**◆DIMENSIONS**

(mm)


**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency coefficient

| Frequency (Hz) |               | 60(50) | 120  | 500  | 1k   | 10k ≤ |
|----------------|---------------|--------|------|------|------|-------|
| Coefficient    | 1 μF          | 0.50   | 1.00 | 1.20 | 1.30 | 1.50  |
|                | 2.2~4.7 μF    | 0.65   | 1.00 | 1.20 | 1.30 | 1.50  |
|                | 10~47 μF      | 0.80   | 1.00 | 1.20 | 1.30 | 1.50  |
|                | 100~1000 μF   | 0.80   | 1.00 | 1.10 | 1.15 | 1.20  |
|                | 2200~33000 μF | 0.80   | 1.00 | 1.05 | 1.10 | 1.15  |

**◆PART NUMBER**

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

**◆STANDARD SIZE, RATED RIPPLE CURRENT**

 Size  $\phi$  D×L(mm), Ripple Current (mA r.m.s./105°C, 120Hz)

| WV(V.DC)<br>Cap(μF) | 6.3<br>(0J) |        | 10<br>(1A) |        | 16<br>(1C) |        | 25<br>(1E) |        | 35<br>(1V) |        | 50<br>(1H) |        | 63<br>(1J) |        |
|---------------------|-------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
|                     | Size        | Ripple | Size       | Ripple | Size       | Ripple | Size       | Ripple | Size       | Ripple | Size       | Ripple | Size       | Ripple |
| 100                 |             |        |            |        |            |        |            |        |            |        | 8×11.5     | 200    | 8×11.5     | 230    |
| 220                 |             |        |            |        |            |        | 6.3×11     | 240    | 8×11.5     | 300    | 10×12.5    | 360    | 10×16      | 390    |
| 330                 |             |        |            |        | 6.3×11     | 270    | 8×11.5     | 335    | 10×12.5    | 400    | 10×16      | 470    | 10×20      | 540    |
| 470                 |             |        | 6.3×11     | 295    | 8×11.5     | 375    | 8×11.5     | 440    | 10×12.5    | 525    | 10×20      | 600    | 12.5×20    | 700    |
| 680                 | 6.3×11      | 285    | 8×11.5     | 430    | 8×11.5     | 480    | 10×12.5    | 630    | 10×16      | 760    | 12.5×20    | 980    | 12.5×25    | 800    |
| 1000                | 8×11.5      | 460    | 8×11.5     | 500    | 10×12.5    | 640    | 10×16      | 740    | 10×20      | 865    | 12.5×25    | 1060   | 16×25      | 1200   |
| 2200                | 10×16       | 775    | 10×16      | 860    | 10×20      | 1050   | 12.5×20    | 1090   | 16×25      | 1370   | 16×31.5    | 1600   | 18×31.5    | 1400   |
| 3300                | 10×20       | 985    | 10×20      | 1100   | 12.5×20    | 1300   | 16×25      | 1500   | 16×25      | 1680   | 18×35.5    | 1780   |            |        |
| 4700                | 12.5×20     | 1150   | 12.5×20    | 1350   | 12.5×25    | 1650   | 16×25      | 1800   | 16×35.5    | 1870   |            |        |            |        |
| 6800                | 12.5×25     | 1480   | 16×25      | 1700   | 16×25      | 1900   | 16×35.5    | 1910   | 18×35.5    | 1920   |            |        |            |        |
| 10000               | 16×25       | 1700   | 16×25      | 1950   | 16×31.5    | 1950   | 18×35.5    | 2050   |            |        |            |        |            |        |
| 15000               | 16×31.5     | 2090   | 16×35.5    | 2090   | 18×35.5    | 2070   |            |        |            |        |            |        |            |        |
| 22000               | 18×31.5     | 2280   | 18×35.5    | 2180   |            |        |            |        |            |        |            |        |            |        |
| 33000               | 18×40       | 2350   |            |        |            |        |            |        |            |        |            |        |            |        |

| WV(V.DC)<br>Cap(μF) | 100<br>(2A) |        | 160<br>(2C) |        | 200<br>(2D) |        | 250<br>(2E) |        | 350<br>(2V) |        | 400<br>(2G) |        | 450<br>(2W) |        |
|---------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
|                     | Size        | Ripple | Size        | Ripple | Size        | Ripple | Size        | Ripple | Size        | Ripple | Size        | Ripple | Size        | Ripple |
| 1                   |             |        |             |        |             |        |             |        |             |        |             |        | 6.3×11      | 15     |
| 2.2                 |             |        |             |        |             |        |             |        | 6.3×11      | 25     | 8×11.5      | 31     | 8×11.5      | 20     |
| 3.3                 |             |        |             |        |             |        | 6.3×11      | 30     | 8×11.5      | 30     | 8×11.5      | 34     | 10×12.5     | 33     |
| 4.7                 |             |        |             |        | 6.3×11      | 40     | 8×11.5      | 45     | 8×11.5      | 45     | 10×12.5     | 42     | 10×12.5     | 35     |
| 10                  |             |        | 8×11.5      | 77     | 8×11.5      | 57     | 10×12.5     | 90     | 10×16       | 95     | 10×16       | 64     | 10×20       | 37     |
| 22                  |             |        | 10×12.5     | 92     | 10×16       | 105    | 10×16       | 105    | 12.5×20     | 175    | 12.5×20     | 140    | 12.5×25     | 100    |
| 33                  | 8×11.5      | 140    | 10×16       | 125    | 10×20       | 140    | 10×20       | 140    | 12.5×25     | 220    | 16×25       | 170    | 16×25       | 125    |
| 47                  | 8×11.5      | 185    | 10×20       | 150    | 10×20       | 195    | 12.5×20     | 190    | 16×25       | 260    | 16×25       | 200    | 16×31.5     | 155    |
| 100                 | 10×16       | 290    | 12.5×25     | 320    | 16×25       | 340    | 16×25       | 310    | 18×31.5     | 370    | 18×35.5     | 310    | 18×40       | 200    |
| 220                 | 12.5×20     | 560    | 16×31.5     | 410    | 16×35.5     | 580    | 18×35.5     | 485    |             |        |             |        |             |        |
| 330                 | 12.5×25     | 690    | 18×31.5     | 570    | 18×40       | 675    |             |        |             |        |             |        |             |        |
| 470                 | 16×25       | 880    | 18×40       | 855    |             |        |             |        |             |        |             |        |             |        |
| 680                 | 16×31.5     | 900    |             |        |             |        |             |        |             |        |             |        |             |        |
| 1000                | 18×35.5     | 985    |             |        |             |        |             |        |             |        |             |        |             |        |

Please use YXA series about Low capacitance.