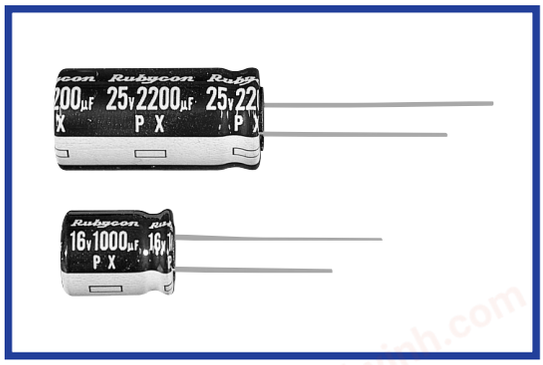
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Rubycon **MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS** **PX**

## PX SERIES

**105℃ Standard**




## ◆FEATURES

・RoHS compliance.

## ◆SPECIFICATIONS

| Items | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | −55～+105℃ | −40～+105℃ | −25～+105℃ |
| Rated Voltage Range | 6.3～100V.DC | 160～400V.DC | 450V.DC |
| Capacitance Tolerance | ±20%(20℃, 120Hz) | | |
| Leakage Current(MAX) | 6.3～100V.DC | 160～450V.DC | |
| | | CV≦1000 | CV>1000 |
| | I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) | I=0.1CV+40μA (1minute) I=0.03CV+15μA (5minutes) | I=0.04CV+100μA (1minute) I=0.02CV+25μA (5minutes) |
| | I=(μA) Leakage Current C=(μF) Rated Capacitance V=(V) Rated Voltage | | |

**(tanδ) Dissipation Factor(MAX)**

| Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| tanδ | 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 |

(20℃, 120Hz)

When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.

**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. |
| Dissipation Factor | Not more than 200% of the specified value. |
| Leakage Current | Not more than the specified value. |

| Case Size | (hrs) Life Time |
|---|---|
| φD≦8 | 1000 |
| φD≧10 | 2000 |

**Low Temperature Stability Impedance Ratio(MAX)**

| Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z(−25℃)/Z(20℃) | 5 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 6 | 6 | 7 |
| Z(−40℃)/Z(20℃) | 10 | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 8 | 8 | 10 | − |

(120Hz)

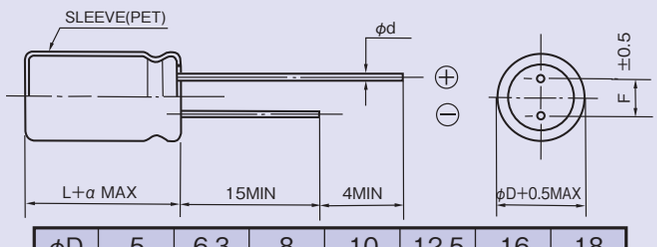
## ◆MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

| (Hz) Frequency | | 60(50) | 120 | 500 | 1k | 10k≦ |
|---|---|---|---|---|---|---|
| Coefficient | 0.47～1μF | 0.50 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 2.2～4.7μF | 0.65 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 10～47μF | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 100～1000μF | 0.80 | 1.00 | 1.10 | 1.15 | 1.20 |
| | 2200～33000μF | 0.80 | 1.00 | 1.05 | 1.10 | 1.15 |

## ◆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 | 100V以下 WV≦100:1.5<br>160V以上 WV≧160:2.0 | | | | | 2.0 | |

## ◆OPTION

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

## ◆PART NUMBER

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

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Rubycon **MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS** **PX**

## ◆STANDARD SIZE

Size φD×L(mm), Ripple Current (mA r.m.s./105℃, 120Hz)

| WV (V.DC) / Cap(μF) | 6.3 (0J) | | 10 (1A) | | 16 (1C) | | 25 (1E) | | 35 (1V) | | 50 (1H) | | 63 (1J) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.47 | | | | | | | | | | | 5×11 | 7 | | |
| 1 | | | | | | | | | | | 5×11 | 13 | | |
| 2.2 | | | | | | | | | | | 5×11 | 20 | | |
| 3.3 | | | | | | | | | | | 5×11 | 25 | | |
| 4.7 | | | | | | | | | | | 5×11 | 32 | | |
| 10 | | | | | | | | | | | 5×11 | 47 | 5×11 | 48 |
| 22 | | | | | | | | | 5×11 | 64 | 5×11 | 70 | 5×11 | 80 |
| 33 | | | | | | | 5×11 | 69 | 5×11 | 77 | 5×11 | 94 | 6.3×11 | 100 |
| 47 | | | | | 5×11 | 80 | 5×11 | 84 | 5×11 | 100 | 6.3×11 | 115 | 6.3×11 | 140 |
| 100 | 5×11 | 96 | 5×11 | 105 | 5×11 | 130 | 5×11 | 135 | 6.3×11 | 170 | 8×11.5 | 200 | 8×11.5 | 230 |
| 220 | 5×11 | 160 | 5×11 | 165 | 6.3×11 | 220 | 6.3×11 | 240 | 8×11.5 | 300 | 10×12.5 | 360 | 10×16 | 390 |
| 330 | 6.3×11 | 210 | 6.3×11 | 235 | 6.3×11 | 270 | 8×11.5 | 335 | 10×12.5 | 400 | 10×16 | 470 | 10×20 | 540 |
| 470 | 6.3×11 | 275 | 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) / Cap(μF) | 100 (2A) | | 160 (2C) | | 200 (2D) | | 250 (2E) | | 350 (2V) | | 400 (2G) | | 450 (2W) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.47 | 5×11 | 8 | | | | | 6.3×11 | 8 | 6.3×11 | 8 | | | | |
| 1 | 5×11 | 15 | | | | | 6.3×11 | 16 | 6.3×11 | 16 | 6.3×11 | 16 | 6.3×11 | 15 |
| 2.2 | 5×11 | 21 | | | | | 6.3×11 | 30 | 6.3×11 | 25 | 8×11.5 | 31 | 8×11.5 | 20 |
| 3.3 | 5×11 | 30 | | | 6.3×11 | 36 | 6.3×11 | 30 | 8×11.5 | 30 | 8×11.5 | 34 | 10×12.5 | 33 |
| 4.7 | 5×11 | 35 | 6.3×11 | 43 | 6.3×11 | 40 | 8×11.5 | 45 | 8×11.5 | 45 | 10×12.5 | 42 | 10×12.5 | 35 |
| 10 | 5×11 | 60 | 8×11.5 | 77 | 8×11.5 | 57 | 10×12.5 | 90 | 10×16 | 95 | 10×16 | 64 | 10×20 | 37 |
| 22 | 6.3×11 | 98 | 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 | | | | | | | | | | | | |