

NKX Series

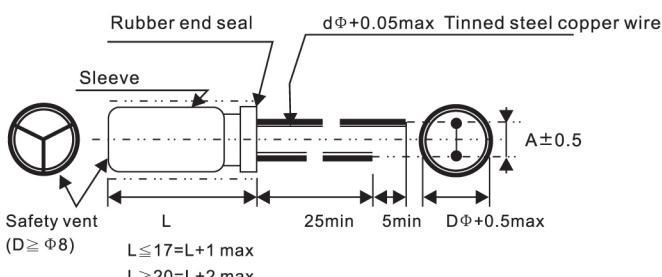
- 105°C, 1000 hours Non-polar series



- SPECIFICATIONS

| Items | Characteristics | | | | | | | | |
|--------------------------------------|---|---|------|------|------|------|------|------|------|
| Category Temperature Range | - 40 to +105°C | | | | | | | | |
| Rated Voltage Range | 6.3V to 100 Vdc | | | | | | | | |
| Capacitance Tolerance | $\pm 20\%$ (M) (at 20°C, 120Hz) | | | | | | | | |
| Leakage Current | I=0.03CV or $4 \mu A$, whichever is greater. Where, I : Max. Leakage current (μA). C : Nominal capacitance (μF). V : Rated voltage(V) (at 20°C, after 2 minutes) | | | | | | | | |
| Dissipation Factor ($\tan \delta$) | Rated voltage (Vdc) | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 100V |
| | $\tan \delta$ (Max.) | 0.26 | 0.24 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.10 |
| | (at 20°C, 120Hz) | | | | | | | | |
| Low Temperature Characteristics | Impedance ration max at 120Hz | | | | | | | | |
| | Working voltage | 6.3v | 10v | 16v | 25v | 35v | 50v | 63v | 100v |
| | 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 |
| Load. Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for 1000 hours at 105°C | | | | | | | | |
| | Capacitance change | $\leq \pm 20\%$ of the initial value | | | | | | | |
| | DF ($\tan \delta$) | $\leq 200\%$ of the initial specified value | | | | | | | |
| | Leakage current | \leq The initial specified value | | | | | | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing for 1000 hours at 105°C without voltage applied. | | | | | | | | |
| | Capacitance change | $\leq \pm 20\%$ of the initial value | | | | | | | |
| | DF ($\tan \delta$) | $\leq 200\%$ of the initial specified value | | | | | | | |
| | Leakage current | \leq The initial specified value | | | | | | | |
| Ripple Current Multiplier | Temperature coefficient | | | | | | | | |
| | Temperature(°C) | ~55 | 60 | 70 | 85 | 105 | | | |
| | Factor | 2.23 | 2.17 | 2.00 | 1.75 | 1.00 | | | |
| | Frequency coefficient | | | | | | | | |
| | cap freq | 60 | 120 | 1k | 10k | 100k | | | |
| | ~47 | 0.75 | 1.00 | 1.35 | 1.50 | 1.50 | | | |
| | 100~470 | 0.80 | 1.00 | 1.23 | 1.35 | 1.50 | | | |
| | 560up | 0.85 | 1.00 | 1.10 | 1.13 | 1.15 | | | |

- Diagram: (Unit: mm)



| | | | | | | |
|-------------------|-----|-----|-----|-----|-------------------|-------------------|
| Body Dia ΦD | 5 | 6 | 8 | 10 | 13 $L \leq 21$ | 16 $L \geq 25$ |
| Lead Dia Φd | 0.5 | | 0.6 | 0.6 | 0.8 | 0.8 |
| Lead Space A | 2 | 2.5 | 3.5 | | 5 | 7.5 |

Chip Type SMD
Miniature Type

General Purpose
High Frequency Low Impedance

High Voltage High Reliability
Non-polar Type

Large Size Snap-in

Large Size Screw

X Metallized Polypropylene Fine Capacitors

◆ NKX series Non-polar 105°C 無極性標準品

● STANDARD RATING

| Vdc μF | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|----------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------|
| 0.1 | | | | | | 5*11 | 3 | |
| 0.22 | | | | | | 5*11 | 5 | |
| 0.33 | | | | | | 5*11 | 7 | |
| 0.47 | | | | | | 5*11 | 8 | 5*11 10 |
| 1.0 | | | | | | 5*11 | 12 | 5*11 18 5*11 15 |
| 2.2 | | | | | | 5*11 | 18 | 5*11 22 6.3*11 22 |
| 3.3 | | | | | | 5*11 | 22 | 6.3*11 28 8*12 32 |
| 4.7 | | | | | 5*11 25 | 5*11 26 | 6.3*11 29 | 6.3*11 31 8*12 39 |
| 10 | | | 5*11 30 | 5*11 34 | 6.3*11 40 | 8*12 52 | 8*12 53 | 10*12 64 |
| 22 | | 5*11 42 | 6.3*11 51 | 6.3*11 55 | 8*12 70 | 10*12 82 | 10*16 95 | 10*20 115 |
| 33 | | 6.3*11 57 | 6.3*11 63 | 8*12 80 | 10*12 85 | 10*16 105 | 10*20 130 | 13*21 165 |
| 47 | | 6.3*11 67 | 8*12 90 | 10*12 95 | 10*12 115 | 10*20 150 | 10*20 150 | 13*25 205 |
| 100 | 8*12 | 105 | 10*12 125 | 10*12 140 | 10*16 160 | 10*20 200 | 13*25 255 | 13*25 270 16*25 300 |
| 220 | 10*12 | 160 | 10*16 204 | 10*20 275 | 13*25 330 | 13*25 360 | 16*25 440 | 16*30 460 |
| 330 | 10*16 | 230 | 10*20 275 | 13*20 350 | 13*25 420 | 16*25 490 | 16*30 590 | |
| 470 | 10*20 | 300 | 13*21 370 | 13*25 470 | 16*25 540 | 16*25 580 | | |
| 1,000 | 13*25 | 550 | 16*25 620 | 16*25 750 | 16*30 850 | | | |

Ripple Current : mA/rms at 120Hz 105°C