

# NK Series

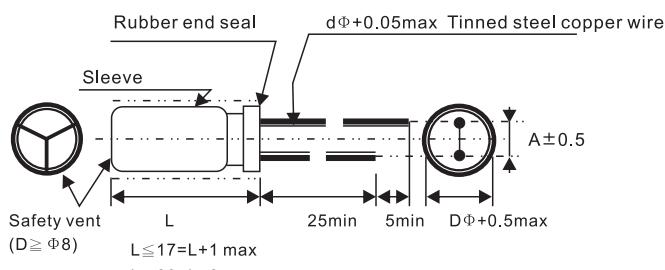
- 105°C, 1000 hours Non-polar series



## ● 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	<b>I=0.03CV or <math>4\mu A</math>, whichever is greater.</b> Where, I : Max. Leakage current ( $\mu A$ ). C: Nominal capacitance ( $\mu F$ ). 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 $\Phi D$	5	6	8	10	13 $L \leq 21$	16 $L \geq 25$
Lead Dia $\Phi d$	0.5			0.6	0.6	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



◆ NK series Non-polar 105°C 無極性標準品

● STANDARD RATING

$\mu\text{F}$	Vdc	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