

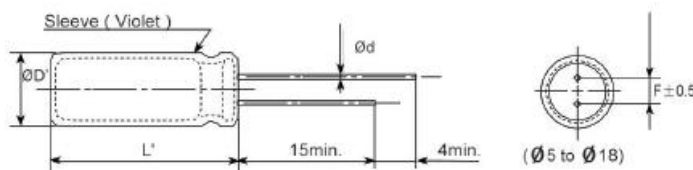
# NP Series

- Nonpolar design
- Temperature range: -40°C ~ +105°C
- Life time: +105°C 2000H
- Sleeve color is Black
- RoHs Compliant

## ◆ SPECIFICATIONS

Items	Characteristics									
Category Temperature Range	-40°C to +105°C									
Rated Voltage Range	10 to 100Vdc									
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)									
Leakage Current	I ≤ 0.01CV or 3μA 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 δ)	Rated Voltage (Vdc)	10	16	25	35	50	63	80	100	
	tanδ(Max.)	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08	
When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase (at 20°C, 120Hz)										
Low Temperature	Rated Voltage (Vdc)	10	16	25	35	50	63	80	100	
	Z(-25°C)/Z(+20°C)	2	2	2	2	2	2	2	2	
Characteristics (Max. Impedance Ratio)	Z(-40°C)/Z(+20°C)	3	3	3	3	3	3	3	3	
	(at 120Hz)									
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105°C									
	Capacitance change	≤±25% of the initial value (10V: ±30%).								
	D.F. (tan δ)	≤200% of the initial specified value.								
	Leakage current	≤ The initial specified value.								
Shelf Life	The following specifications shall be satisfied when the capacitors performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C after exposing them for 1000hours at 105°C without voltage applied.									
	Capacitance change	≤±25% of the initial value (10V: ±30%).								
	D.F. (tan δ)	≤200% of the initial specified value.								
	Leakage current	≤The initial specified value.								

## ◆ DIMENSIONS [mm]



φD	5	6.3	8	10	12.5	16	18
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φD'	φD+0.5max.						
L'	L+2.0max.						

# NP Series

## ◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	尺寸 φD×L(mm)	tan δ	Ripple current mArms, 105°C, 120Hz	WV (Vdc)	Cap (μF)	尺寸 φD×L(mm)	tan δ	Ripple current mArms, 105°C, 120Hz
6.3(0J)	33	5×11	0.24	48	50(1H)	33	8×12	0.14	100
	47	6.3×11	0.24	65		47	8×12	0.14	146
	100	8×12	0.24	105		56	10×12.5	0.14	195
	220	10×12.5	0.24	168		100	10×16	0.14	260
	330	10×16	0.24	230		220	12.5×20	0.14	445
	470	10×20	0.24	300		330	12.5×25	0.14	595
	1000	12.5×20	0.24	550		470	16×25	0.14	680
10(1A)	22	5×11	0.24	48		1000	16×32	0.14	796
	33	6.3×11	0.24	58	63(1J)	3.3	6.3×11	0.12	26
	47	6.3×11	0.24	70		4.7	6.3×11	0.12	32
	100	8×12	0.24	125		5.6	6.3×11	0.12	40
	220	10×12.5	0.24	205		6.8	6.3×11	0.12	45
	330	10×16	0.24	278		10	8×12	0.12	55
	470	10×20	0.24	370		22	8×12	0.12	90
1000	12.5×20	0.24	365	33		10×16	0.12	128	
16(1C)	10	5×11	0.20	30		47	10×20	0.12	156
	22	5×11	0.20	52	56	12.5×20	0.12	218	
	33	6.3×11	0.20	66	100	12.5×25	0.12	275	
	47	6.3×11	0.20	90	220	16×25	0.12	486	
	100	8×12	0.20	140	100(2A)	0.1	5×11	0.10	13
	220	10×12.5	0.20	285		0.22	5×11	0.10	15
	330	10×16	0.20	346		0.33	5×11	0.10	15
	470	10×20	0.20	460		0.47	5×11	0.10	15
1000	12.5×20	0.20	750	1		5×11	0.10	20	
10	5×11	0.20	36	2.2		6.3×11	0.10	28	
22	6.3×11	0.20	55	3.3		8×12	0.10	32	
33	6.3×11	0.20	75	4.7		8×12	0.10	44	
25(1E)	47	8×12	0.20	96	5.6	8×12	0.10	52	
	100	10×12.5	0.20	158	6.8	8×14	0.10	65	
	220	10×16	0.20	306	10	10×12	0.10	80	
	330	10×20	0.20	415	22	10×20	0.10	145	
	470	12.5×20	0.20	545	33	13×21	0.10	190	
	1000	12.5×25	0.20	870	47	13×21	0.10	265	
	4.7	5×11	0.16	25	56	13×25	0.10	295	
	5.6	5×11	0.16	28	68	13×25	0.10	350	
35(1V)	6.8	5×11	0.16	33	100	13×25	0.10	470	
					220	16×25	0.10	810	
					330	18×35	0.10	1100	
	10	6.3×11	0.16	40					
	22	6.3×11	0.16	68					
	33	8×12	0.16	90					
	47	8×12	0.16	110					
	56	10×12.5	0.16	140					
	100	10×16	0.16	196					
	220	10×16	0.16	365					
	330	10×20	0.16	492					
	470	12.5×25	0.16	595					
1000	16×25	0.16	750						
50(1H)	0.1	5×11	0.14	8					
	0.22	5×11	0.14	8					
	0.33	5×11	0.14	8					
	0.47	5×11	0.14	8					
	1	5×11	0.14	12					
	2.2	5×11	0.14	18					
	3.3	5×11	0.14	22					
	4.7	6.3×11	0.14	30					
	5.6	6.3×11	0.14	35					
	6.8	6.3×11	0.14	40					
	10	6.3×11	0.14	50					
	22	6.3×11	0.14	82					