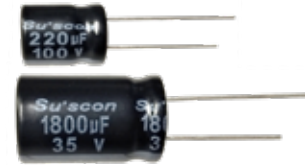


# HN series

- Non-polarity standard product, 105°C 2000 hours.
- Suitable for DC two-way return circuit.
- RoHS Compliance
- 無極性105°C 2000小時標準品。
- 適用於直流雙向迴路。



## SPECIFICATIONS

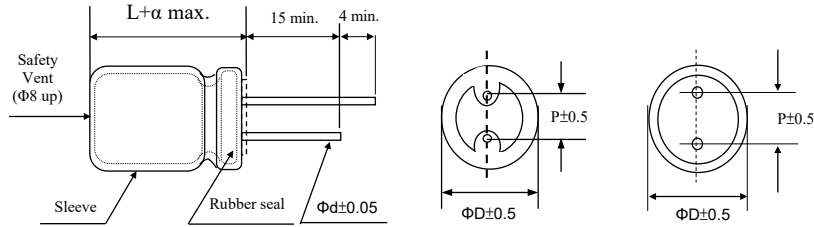
Items 項目	Characteristics 特性									
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)									
Operating Temperature Range 適用溫度範圍	-40 ~ +105°C									
Rated Voltage Range 額定電壓範圍	6.3 ~ 160VDC									
Leakage Current 洩漏電流	I ≤ 0.03CV or 3 (µA) which is greater. (After 5 minutes application of DC rated voltage, at 20 °C)									
Dissipation Factor 散逸因素( tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C									
	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160
	tan δ(Max)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10	0.15
When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF .										
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.									
	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	160
	Z(-25°C)/Z(20°C)	4	3	2	2	2	2	2	2	3
	Z(-40°C)/Z(20°C)	10	8	6	5	4	4	3	3	4
Load Life 負荷壽命	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 2,000 hours with the polarity inverted every 250 hours at 105°C.									
	Capacitance Change	Within ± 20% of Initial Value								
	tan δ	200% or less of Initial Specified Value								
	Leakage Current	Initial Specified Value or less								
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.									
	Capacitance Change	Within ± 20% of Initial Value								
	tan δ	200% or less of Initial Specified Value								
	Leakage Current	Initial Specified Value or less								
Standards 參照標準	IEC 60384-4 (JIS C5101-4)									

## Frequency Coefficient of Permissible Ripple Current

Capacitance (µF)	Frequency (Hz)			
	50	120	1K	≥ 10K
< 100	0.80	1.00	1.30	1.50
≥ 100	0.80	1.00	1.15	1.20

# HN series

**DIMENSIONS(mm)**



ΦD	4	5	6.3	8	10	12.5	16
P	1.5	2.0	2.5	3.5	5.0	5.0	7.5
Φd	0.45	0.5	0.5	0.5	0.6	0.6	0.8

$\alpha$	(L < 20) 1.5
	(L ≥ 20) 2.0

**STANDARD RATINGS**

DxL(mm), R.C : (mA rms) at 105°C 120 Hz.

Cap (μF)	V	6.3		10		16		25	
		D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.
3.3								4x7	15
4.7						4x7	18	5x7	18
10				4x7	23	5x7	27	5x11	36
						5x11	30	6.3x7	28
22	5x7	33	5x7	36	6.3x7	41	6.3x11	55	
			5x11	42	6.3x11	52	8x7	42	
33	5x7	40	6.3x7	45	6.3x11	66	8x11.5	75	
	5x11	48	6.3x11	58	8x7	52			
47	6.3x7	49	6.3x11	70	8x11.5	90	10x12.5	96	
	6.3x11	65	8x7	55					
100	8x11.5	105	10x12.5	125	10x12.5	140	10x16	158	
220	10x12.5	168	10x16	205	10x20	285	12.5x20	306	
330	10x16	230	10x20	278	12.5x20	346	12.5x25	415	
470	10x20	330	12.5x20	370	12.5x25	460	16x26	545	
1000	12.5x25	550	16x26	665	16x26	750	16x31.5	870	

Cap (μF)	V	35		50		63		100		160	
		D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.
0.47				4x7	6.6	4x7	7.3				
						5x11	8	5x11	5	5x11	10
1				4x7	9.7	4x7	10	5x11	15	8x11.5	17
						5x11	12				
2.2	4x7	13	5x7	14	5x7	16	6.3x11	24	8x11.5	20	
			5x11	18	5x11	22					
3.3	5x7	16	5x7	18	6.3x7	20	8x11.5	32	8x11.5	25	
			5x11	22	6.3x11	26					
4.7	5x7	20	6.3x7	22	6.3x11	32	8x11.5	40	8x11.5	30	
	5x11	25	6.3x11	30	8x7	24					
5.6	5x11	28	6.3x11	35	6.3x11	40	8x11.5	48	8x14	35	
6.8	5x11	33	6.3x11	40	8x11.5	45	8x14	52	8x16	41	
10	6.3x11	40	8x11.5	50	8x11.5	55	10x12.5	65	10x16	55	
	8x7	30									
22	8x11.5	68	10x12.5	82	10x16	90	10x20	120	12.5x20	106	
33	10x12.5	90	10x16	100	10x20	128	12.5x20	168	12.5x20	130	
47	10x12.5	110	10x20	146	10x20	156	12.5x20	200	12.5x25	167	
56	10x16	140	12.5x20	195	12.5x20	218	12.5x20	250	16x26	206	
100	10x20	196	12.5x25	260	12.5x25	275	12.5x25	295	16x31.5	300	
220	12.5x25	365	16x26	445	16x31.5	486					
330	16x26	492	16x31.5	595							
470	16x31.5	595									

HN