

SEN series

- Anhydrous product.
- 105°C high-temperature, high reliability and long life.
- Suitable for office communicative and industrial equipments.
- RoHS Compliance
- 無水系產品。
- 105°C 耐高溫、高信賴性長壽命製品。
- 適用於辦公室通訊設備、工業設備。



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	160 ~ 450VDC					
Leakage Current 洩漏電流	$I \leq 0.03CV + 20 (\mu A)$ (After 3 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)	160	200	250	350	400~450
	tan δ(Max)	0.20	0.20	0.20	0.25	0.25
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)	160	200	250	350	400
	Z(-25°C)/Z(20°C)	3	3	3	6	15
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 5,000 hours (φ D≤8:3,000 hours; φ D=10:4,000 hours) at 105°C.					
	Capacitance Change	Within ± 25% 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	JIS C 5101-4 (IEC 60384)					

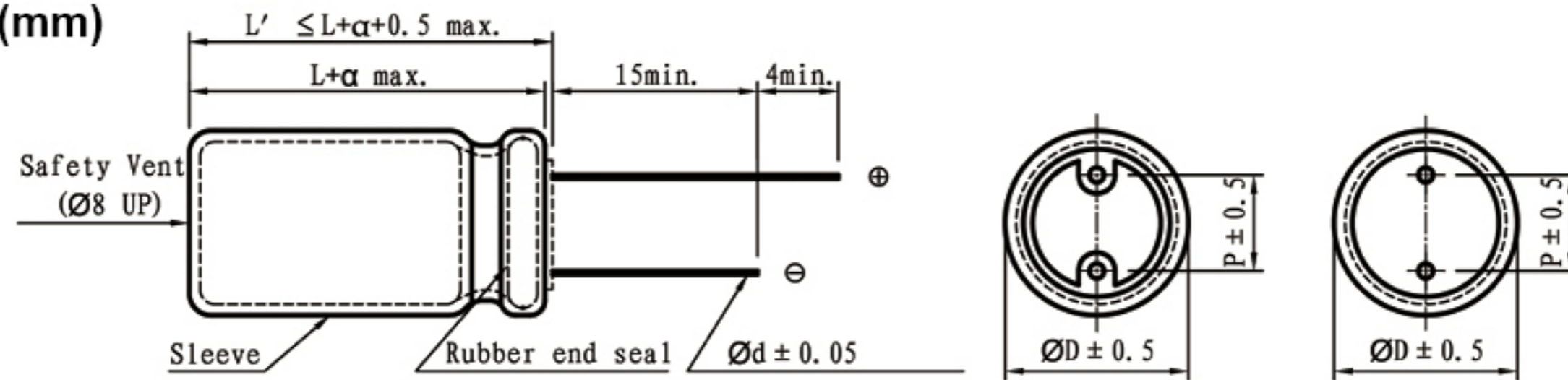
Frequency Coefficient of Permissible Ripple Current

Rated Voltage (V)	Capacitance (µF)	Frequency (Hz)			
		50	120	1K	≥ 10K
≥ 160	2.2 ~ 220	0.80	1.00	1.30	1.40

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use , the rms ripple current has to be reduced.

SEN series

DIMENSIONS(mm)



ϕD	6.3	8	10	13	16	18
P	2.5	3.5	5.0	5.0	7.5	7.5
ϕd	0.5	0.5	0.6	0.6	0.8	0.8

α	(L < 16) 1.0 (L ≥ 16) 2.0
----------	------------------------------

STANDARD RATINGS

DxL(mm) ; R.C.(mA rms) at 105°C 120Hz

Cap (μF)	V Item	160		200		250		400		450	
		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.
2.2		6.3x11	29	6.3x11	29	8x12	36	8x12	36	8x12	36
3.3		8x12	35	8x12	36	8x12	52	8x12	45	8x12	52
4.7		8x12	44	8x12	52	8x12	57	10x13	57	10x13	62
10		10x13	78	10x16	83	10x16	104	10x20	95	10x20	104
22		10x16	135	10x20	145	13x21	176	13x21	168	13x25	197
33		10x20	176	13x21	208	13x21	234	13x25	213	16x22	249
39		10x20	197	13x21	228	13x25	260	16x22	213	16x26	312
47		13x21	239	13x21	260	13x25	291	16x26	332	16x32	343
68		13x25	270	13x25	291	16x22	322	16x26	364	18x25	364
82		16x22	332	16x26	364	16x32	405	18x25	436	18x32	603
100		16x26	364	16x32	499	16x36	520	18x32	572	18x35	686
120								18x40	676	18x40	800

※ 13mm may be replaced by 12.5mm upon customer's request.