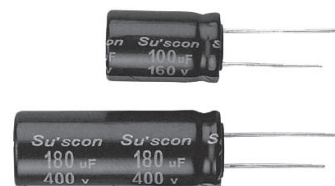


# SE series

- 105°C high-temperature, high reliability and long life.
- Suitable for office communicative or industrial equipments.
- RoHS Compliance.
- 105°C耐高溫、高性能、長壽命產品。
- 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						- 40 ~ +105°C			-25 ~ +105°C		
Rated Voltage Range 額定電壓範圍	6.3 ~ 100VDC						160 ~ 250VDC			350 ~ 450VDC		
Leakage Current 洩漏電流	I ≤ 0.01CV or 3 (µA) which is greater.( After 2 minutes application of DC rated voltage, at 20 °C)						I ≤ 0.03CV +20 (µA) ( 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)	6.3	10	16	25	35	50	63	100	160~250	350~450	
	tan δ(Max)	0.24	0.20	0.17	0.15	0.12	0.10	0.09	0.08	0.15	0.20	
	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	160~250	350~400	450
	Z(-25°C)/Z(20°C)	4	3	3	2	2	2	2	2	4	8	15
	Z(-40°C)/Z(20°C)	8	6	6	4	4	4	4	4	6	-	-
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 ± 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	JIS C 5101-4 (IEC 60384)											

## Frequency Coefficient of Permissible Ripple Current

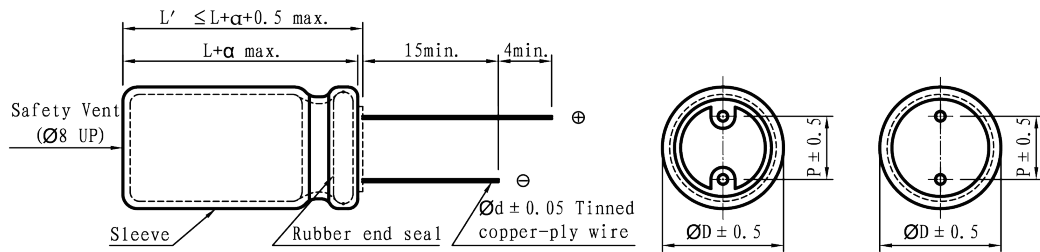
Rated Voltage (V)	Capacitance (µF)	Frequency (Hz)			
		50	120	1K	≥ 10K
≤ 100	< 100	0.70	1.00	1.40	1.60
	100 ~ 4700	0.75	1.00	1.30	1.40
	> 4700	0.80	1.00	1.15	1.20
≥ 160	2.2 ~ 820	0.80	1.00	1.30	1.40

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.

SE

# SE series

## DIMENSIONS(mm)



φ D	5	6.3	8	10	13	14.5	16	18	22	25
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	7.5	10	12.5
φ d	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8	1.0

$\alpha$	(L < 16) 1.0
	(L ≥ 16) 2.0

## STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 120Hz.

Cap (μF)	V	6.3		10		16		25		35		50		63	
		Item	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.	D x L	R.C.	D x L
0.47												5x11	8		
1												5x11	17		
2.2												5x11	23		
3.3												5x11	31		
4.7												5x11	35		
10								5x11	45	5x11	48	5x11	51	5x11	56
22								5x11	60	6.3x11	78	6.3x11	85	6.3x11	95
33								6.3x11	90	6.3x11	100	8x12	102	8x12	122
47						5x11	85	6.3x11	105	8x12	130	8x12	141	10x13	152
100		5x11	120	5x11	130	6.3x11	140	8x12	185	8x12	190	10x13	231	10x16	250
220		6.3x11	170	6.3x11	190	8x12	240	10x13	290	10x13	320	10x16	368	10x20	415
330		8x12	250	8x12	280	8x12	310	10x13	350	10x16	420	10x20	490	13x21	550
470		8x12	290	8x12	330	10x13	380	10x20	465	13x21	580	13x21	665	16x26	725
1000		10x13	490	10x16	580	10x20	670	13x21	830	13x25	1000	16x26	1080	16x32	1135
2200		10x20	830	13x21	970	13x25	1130	16x26	1210	16x32	1450	18x35	1695		
3300		13x21	1060	13x25	1250	16x26	1350	16x32	1540	18x35	1830	18x40	2070		
4700		13x25	1310	16x26	1400	16x32	1570	18x35	1870	18x40	2150				
6800		16x26	1430	16x32	1690	18x35	1930	18x40	2120						
10000		16x32	1790	18x35	2010	18x40	2190								
15000		18x35	1980	18x40	2260										
22000		18x40	2290												

Cap (μF)	V	100		160		200		250		350		400		450	
		Item	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.	D x L	R.C.	D x L
2.2		5x11	28	6.3x11	28	6.3x11	28	8x12	35	8x12	35	8x12	35	10x13	36
3.3		5x11	34	8x12	34	8x12	35	8x12	50	8x12	44	8x12	50	10x13	48
4.7		5x11	40	8x12	43	10x13	50	8x12	55	10x13	55	10x13	60	10x16	60
10		6.3x11	66	10x13	75	10x16	80	10x16	100	10x20	92	10x20	100	13x21	110
22		8x12	112	10x16	130	10x20	140	13x21	170	13x21	162	13x25	190	16x22	210
33		10x13	155	10x20	170	13x21	200	13x21	225	13x25	205	16x22	240	16x26	280
39		10x13	160	10x20	190	13x21	220	13x25	250	16x22	220	16x26	300	16x32	330
47		10x16	190	13x21	230	13x21	250	13x25	280	16x26	320	16x32	330	18x25	360
68		10x20	210	13x25	260	13x25	280	16x22	310	16x26	350	18x25	350	18x32	500
82		13x21	240	16x22	320	16x26	350	16x32	390	18x25	420	18x32	580	18x35	600
100		13x21	310	16x26	350	16x32	480	16x36	500	18x32	550	18x35	660	18x40	720
120										18x35	650	18x40	770		
220		16x26	540	18x35	640	18x40	810								
330		16x26	660												
470		16x32	880												
560				22x40	1300	22x50	1400								
680				22x50	1420	25x50	1550								
820						25x50	1700								

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

# SE series

## SLIM TYPE

- 105°C high-temperature and high voltage 350~450V, life 3000~5000hrs.
- Specially Size, 8~16mm diameter.
- For LCD-TV and LCD-Monitor power.
- RoHS Compliance.
- 105°C 耐高溫標準品，高壓350~450V，壽命3000~5000小時。
- 特殊專用尺寸，直徑8~16mm。
- 使用於LCD TV與LCD Monitor電源應用。



## STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 120Hz.

Cap (µF)	V	350		400		450	
		D x L	R.C.	D x L	R.C.	D x L	R.C.
22				8x50	135	10x40	280
33				8x61	280	10x50	350
		10x40	210	10x40	260	13x35	300
39		10x40	210	8x61	280	8x61	350
		13x30	270	10x45	300	10x50	350
				13x35	310	13x40	360
47		10x40	300	10x50	330	10x60	410
		13x35	320	13x40	350	13x50	370
		14.5x30	320	14.5x40	370	14.5x40	390
53		13x35	320	13x50	385	10x60	440
68		10x60	400	13x50	385	13x60	450
		13x40	420	14.5x45	400	14.5x50	400
		16x35	430	16x35	420	16x40	440
82		13x50	450	14.5x45	530	14.5x50	600
		16x35	500	16x40	550	16x45	620
100		16x40	530	14.5x50	700	16x50	760
				16x45	720		

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

