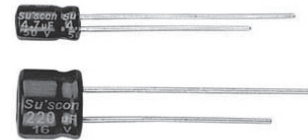


# SM series

- Miniature product, 105°C.
- Applicable to small electronic devices.
- Height : 7 mm.
- RoHS Compliance
- 105°C小型化產品。
- 適用於小型電子設備。
- 高度：7mm系列。



## 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 ~ 50VDC							
Leakage Current 洩漏電流	$I \leq 0.01CV$ or 3 (μA) which is greater. ( After 2 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	
	tan δ(Max)	0.24	0.20	0.16	0.15	0.12	0.10	
Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz.							
	Rated Voltage(V)	6.3	10	16	25	35	50	
	Impedance Ratio(Max) 阻抗比率(最大值)	Z(-25°C)/Z(20°C)	3	2	2	2	2	2
	Z(-40°C)/Z(20°C)	6	5	4	3	3	3	
Load Life 負荷壽命	1000hours,with application of rated voltage 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)							

SM

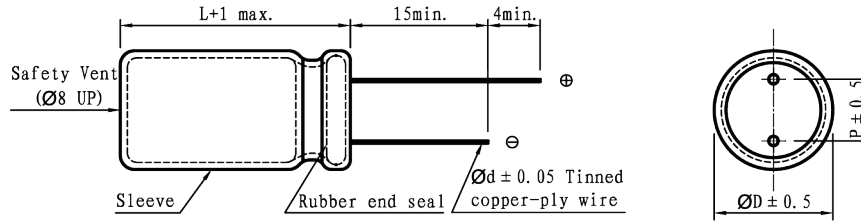
## Frequency Coefficient of Permissible Ripple Current

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

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.

# SM series

## DIMENSIONS(mm)



$\phi D$	4	5	6.3	8
P	1.5	2.0	2.5	3.5
$\phi d$	0.45	0.5	0.5	0.5

## STANDARD RATINGS

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

Cap (µF)	V	6.3		10		16	
		Item	D x L	R.C.	D x L	R.C.	D x L
10						4x7	28
22		4x7		34	4x7	37	44
33		4x7		42	4x7	45	52
47		4x7		50	5x7	60	69
100		5x7		75	6.3x7	86	95
220		6.3x7		95	8x7	145	150
330		8x7		160			

Cap (µF)	V	25		35		50	
		Item	D x L	R.C.	D x L	R.C.	D x L
0.1						4x7	1.0
0.22						4x7	2.3
0.33						4x7	3.5
0.47						4x7	5.0
1						4x7	10
2.2						4x7	18
3.3					4x7	18	24
4.7		4x7		22	4x7	22	28
10		4x7		29	5x7	33	42
22		5x7		35	6.3x7	55	60
33		6.3x7		62	6.3x7	65	68
47		8x7		75	8x7	80	95
100		8x7		95			
150		8x7		105			
180		8x7		120			

SM