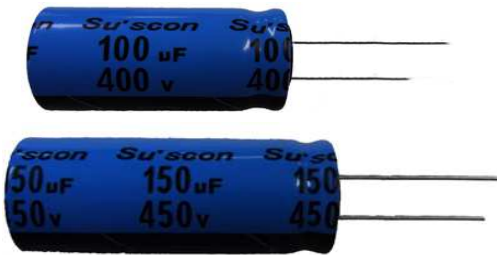


SER series

- 105℃ high-temperature resistance, high reliability and long life.
high ripple current.
- Suitable for office communicative or industrial equipments.
- RoHS Compliance.
- SPECIFICATIONS



Items 項目	Characteristics 特性			
Capacitance Tolerance 靜電容量误差	±20% (120Hz, 20℃)			
Operating temperature Range 適用溫度範圍	-40～ + 105℃		-25～ + 105℃	
Rated Voltage Range 工作電壓範圍	160~400V		450V	
Leakage Current 洩漏電流	I ≤ 0.03CV +20 (uA), (After 3 minutes application of working voltage)			
Dissipation Factor 散逸因素 (tan δ)	Measurement Frequency: 120Hz. Temperature: 20℃			
	Rated Voltage (V)	160~250	400~450	
	tan δ (MAX)	0.15	0.20	
Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz.			
	Rated Voltage (V)	160~250	400	450
Impedance Ratio (MAX)	Z (-25℃) / Z (20℃)	3	5	6
阻抗比率 (最大值)	Z (-40℃) / Z (20℃)	6	6	-
Load Life 負荷壽命	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied for 5,000 hours at 105℃ .			
	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	1000hours, no voltage applied, at 105℃ 。 After Test: U _R to be applied for 30 minutes, 24 to 48 hours before measurement.			
	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 5101-4-1 and JIS C 5101-2			

●Permissible Ripple Current

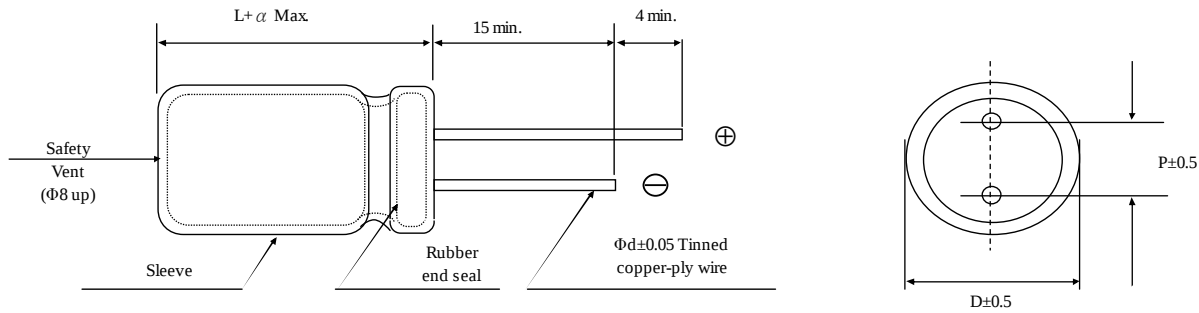
Frequency Coefficient

Capacitance (uF)	Frequency (Hz)			
	120	1k	10k	100k
22~82	1.00	1.25	1.50	1.75
100~470	1.00	1.15	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℃ rise .
When long life performance is required in actual use ,the rms ripple current has to be reduced.

SER series

● DIMENSIONS (mm)



ΦD	5	6.3	8	10	13	14.5	16	18	20
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	7.5	10.0
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8

a	(L<16)1.0 (L≥16)2.0
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● STANDARD RATINGS

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

Cap (μF)	WV (V)	160 (2C)		200 (2D)		250 (2E)		400 (2G)		450 (2W)	
		D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
22		10×16	130					10×30	205	10×40	310
33		10×20	210					10×40	260	13×35	325
39		10×20	210					10×45	320	13×40	385
47		10×25	305					13×35	385	10×50	390
										14.5×40	465
56		10×25	305					13×40	420	14.5×40	465
										16×30	530
68		10×25	345	10×30	445	13×25	490	13×45	500	14.5×45	650
								14.5×30	500	18×32	650
82		10×30	445	10×35	485	13×30	550	14.5×40	545	16×40	720
										18×32	720
100		10×35	485	10×40	560	16×25	620	14.5×45	600	18×36	800
								18×32	600		
120		10×40	560	10×45	680	16×32	685	16×40	710	18×40	900
								18×36	710		
150		10×45	680	13×35	720	16×35	815	18×40	835	18×45	1065
										20×40	1120
220		13×40	850	13×45	890	18×36	1020				
				14.5×35	890						
270		13×45	945	16×35	1030	18×40	1090				
330		16×35	1100	16×40	1200						
				18×32	1200						
470		18×40	1220	18×45	1305						

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