

# SAMSON

## SLP Series

### Lug/Snap-in Terminal Type(插入/自立型), Standard(標準品)

#### FEATURES

1. Directly mountable on printed circuit board without holders.
2. Smaller low profile sizes than ordinary capacitors.
3. Terminal spacing fixed at 10mm for PC board plug in.
4. Aluminum case designed explosion-proof vent.



#### SPECIFICATIONS

Item	Performance Characteristics													
Operating Temperature Range	-40 to +85°C		-25 to +85°C											
Rated Working Voltage Range	10 to 100V		160 to 450V											
Nominal Capacitance Range	56 to 82000μF													
Capacitance Tolerance	±20% (120Hz, +20°C)													
Leakage Current	$I \leq 3 \sqrt{CV} (\mu\text{A})$ after 5 minutes application of rated working voltage at +20°C													
Dissipation Factor tan δ (120Hz, +20°C)	Working Voltage (V)	10	16	25	35	50	63	80						
	tan δ (max.)	0.55	0.50	0.45	0.40	0.35	0.30	0.25						
	Working Voltage (V)	160 ~ 250	315 ~ 450											
	tan δ (max.)	0.15	0.25											
	For capacitance value > 33000μF, add following calculated value: $\frac{(\text{rated capacitance}) - 33000\mu\text{F}}{10000\mu\text{F}} \times 0.1$													
Low Temperature Characteristics	Impedance ratio max. at 120Hz													
	Working Voltage (V)	10 ~ 100	160 ~ 250	315 ~ 385	400 ~ 450									
	Z-25°C / Z+20°C	4	3	5	8									
	Z-40°C / Z+20°C	15	12	--	--									
High Temperature Loading	Test conditions The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2000 hours at 85°C													
	Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±20% of initial measured value tan δ : ≤ 200% of initial specified value													
Shelf Life	At 85°C no voltage applied after 1000 hours the capacitors shall meet the following limits Leakage current : ≤ 200% of Initial specified value Cap. change : within ±15% of initial measured value tan δ : ≤ 150% of initial specified value													
Others	JIS C - 5141 JIS C - 5102													

#### RIPPLE CURRENT MULTIPLIER

Temperature Coefficient	Frequency Coefficient
1) Maximum rms ripple current at 120Hz, 85°C are given in the table.	
2) Temperature multiplying factor:	
Where capacitors are operated at temperature other than 85°C, the maximum ripple current must be multiplied by the figure shown in the table below.	
Temperature(°C)	20 ~ 45    65    75    85
Factor	1.37    1.25    1.18    1.0
Freq.(Hz)	60    120    1K    10 ~ 50K
25 ~ 100V	0.9    1.0    1.15    1.25
160 ~ 250V	0.8    1.0    1.15    1.47
315 ~ 450V	0.8    1.0    1.15    1.47

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### DIMENSIONS

Voltage (Code)		10V		16V		25V		35V	
Cap.( $\mu$ F)	Code	Case Size	Ripple Current						
2700	278							20 x 25	1.76
3300	338							20 x 30	2.14
3900	398							20 x 30	2.28
4700	478							22 x 25	2.22
								20 x 35	2.46
5600	568							22 x 30	2.46
								25 x 25	2.43
6800	688			20 x 25	2.33			20 x 30	2.33
								22 x 25	2.31
8200	828			20 x 30	2.56			20 x 35	2.56
				22 x 25	2.56			22 x 30	2.56
10000	109	20 x 25	2.22	20 x 35	2.85	22 x 35	3.18	20 x 40	2.89
				22 x 30	2.81	25 x 30	3.16	22 x 35	2.79
12000	129	20 x 30	2.44	20 x 40	3.20	22 x 40	3.53	22 x 45	3.47
		22 x 25	2.41	22 x 30	3.13	25 x 35	3.48	25 x 30	2.89
15000	159	20 x 35	2.90	22 x 35	3.69	22 x 50	4.08	25 x 40	3.33
		22 x 30	2.88	25 x 30	3.64	25 x 40	4.00	25 x 35	3.09
		25 x 25	2.88	30 x 25	3.73	30 x 30	4.00	30 x 30	3.29
18000	189	20 x 40	3.31	22 x 40	3.98	25 x 45	4.68	30 x 40	4.80
		22 x 35	3.22	25 x 35	3.98	30 x 35	4.66	35 x 35	4.08
		25 x 30	3.08	30 x 30	3.88	35 x 30	4.68	30 x 45	5.18
22000	229	22 x 40	3.79	22 x 50	4.52	30 x 40	5.19	35 x 45	5.71
		25 x 30	3.66	25 x 40	4.44	35 x 35	5.20		
		30 x 25	3.53	30 x 30	4.38				
27000	279	22 x 45	4.04	25 x 45	4.98	30 x 45	6.02	35 x 50	6.90
		25 x 35	4.04	30 x 35	4.82	35 x 40	6.02		
		30 x 30	3.99	35 x 30	4.82				
33000	339	22 x 50	4.58	25 x 50	5.49	35 x 45	6.75		
		25 x 40	4.56	30 x 40	5.38				
		30 x 30	4.58	35 x 35	5.33				
39000	399	25 x 45	5.29	30 x 45	6.11	35 x 50	7.56		
		30 x 35	5.21	35 x 35	6.01				
		35 x 30	5.50						
47000	479	25 x 50	5.78	30 x 50	6.80				
		30 x 40	5.78	35 x 40	6.80				
		35 x 35	5.55						
56000	569	30 x 45	6.59	35 x 45	7.62				
		35 x 35	6.40						
68000	689	30 x 50	7.50						
		35 x 40	7.48						
82000	829	35 x 50	8.50						

Maximum Allowable Ripple Current (A rms) at 85°C 120Hz

Case Size  $\phi$ D x L(mm)

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### DIMENSIONS

Voltage (Code)		50V		63V		80V		100V	
Cap.( $\mu$ F)	Code	Case Size	Ripple Current						
680	687							20 x 25	1.66
820	827							20 x 30	1.85
1000	108					20 x 25	1.56	22 x 25	1.86
1200	128					20 x 30	1.80	20 x 35	2.02
1500	158			20 x 25	1.69	22 x 30	2.01	22 x 30	2.02
1800	188	20 x 25	1.70	20 x 30	2.04	20 x 40	2.30	22 x 40	2.77
2200	228	20 x 30	2.07	22 x 30	2.35	22 x 35	2.25	25 x 35	2.77
2700	278	22 x 25	1.93	25 x 25	2.30	25 x 25	2.26	30 x 25	2.65
3300	338	20 x 35	2.21	20 x 40	2.52	22 x 45	2.93	25 x 45	3.61
3900	398	22 x 30	2.21	22 x 35	2.50	25 x 35	2.93	30 x 35	3.60
4700	478	25 x 30	2.38	25 x 30	2.78	30 x 30	3.23	35 x 30	3.71
5600	568	20 x 40	2.41	22 x 40	2.69	22 x 50	3.25	25 x 50	4.06
6800	688	22 x 35	2.41	22 x 45	3.10	25 x 40	3.25	30 x 40	4.05
8200	828	25 x 30	2.68	25 x 35	3.09	30 x 35	3.62	35 x 35	4.50
10000	109	25 x 40	3.01	25 x 50	3.49	25 x 50	4.28	30 x 50	5.13
12000	129	30 x 25	3.03	25 x 40	3.37	30 x 40	4.15	35 x 40	5.12
15000	159	30 x 30	3.43	30 x 35	3.80	30 x 45	4.55	35 x 45	5.75
18000	189	35 x 30	3.43	35 x 35	3.81	35 x 35	4.51		
		22 x 50	3.94	25 x 50	4.41	30 x 50	5.18	35 x 50	6.01
		25 x 40	3.87	30 x 40	4.41	35 x 40	5.14		
		30 x 35	3.87	35 x 35	4.33				
		25 x 45	4.37	30 x 45	4.90	35 x 45	5.83		
		30 x 35	4.42	35 x 35	4.80				
		35 x 30	4.41						
		30 x 40	5.02	30 x 50	5.49	30 x 60	6.10		
		35 x 35	4.92	35 x 40	5.47				
		30 x 50	5.60	35 x 50	6.30				
		35 x 40	5.60						
		35 x 50	6.44						
		35 x 50	6.71						

Maximum Allowable Ripple Current (A rms) at 85°C 120Hz

Case Size  $\phi$ D x L(mm)

## SLP Series

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DIMENSIONS									
Voltage (Code)		160V		180V		200V		220V	
Cap.( $\mu$ F)	Code	Case Size	Ripple Current						
180	187							20 x 25	1.09
220	227					20 x 25	1.13	20 x 30	1.15
								22 x 25	1.09
								20 x 30	1.38
270	277	20 x 25	1.22	20 x 25	1.23	20 x 30	1.32	20 x 30	1.38
						22 x 25	1.30	22 x 25	1.31
								20 x 35	1.51
330	337	20 x 30	1.48	20 x 30	1.48	20 x 30	1.49	22 x 30	1.58
				22 x 25	1.42	22 x 25	1.44	25 x 25	1.49
								20 x 40	1.73
390	397	20 x 30	1.55	20 x 30	1.58	20 x 35	1.66	22 x 35	1.69
				22 x 25	1.61	22 x 30	1.65	25 x 30	1.71
								22 x 40	1.99
470	477	20 x 35	1.81	20 x 35	1.82	20 x 40	1.93	25 x 30	1.95
				22 x 30	1.80	22 x 35	1.88	30 x 25	1.89
				25 x 25	1.80	25 x 30	1.86		
560	567	20 x 40	2.04	20 x 40	2.04	22 x 40	2.08	22 x 45	2.28
				22 x 35	2.05	22 x 35	2.09	25 x 30	2.05
				25 x 30	2.05	30 x 25	2.05	30 x 30	2.19
680	687	22 x 40	2.24	22 x 40	2.36	22 x 45	2.36	22 x 50	2.46
				25 x 30	2.22	25 x 35	2.34	25 x 40	2.40
				30 x 25	2.22	30 x 25	2.27	30 x 30	2.39
820	827	22 x 45	2.55	22 x 45	2.72	22 x 50	2.68	25 x 45	2.81
				25 x 35	2.52	25 x 40	2.58	30 x 35	2.70
				30 x 30	2.51	30 x 30	2.56	35 x 30	2.62
1000	108	22 x 50	2.88	25 x 45	2.91	25 x 45	3.12	25 x 50	3.13
				25 x 40	2.86	30 x 35	3.00	30 x 40	3.08
				30 x 30	2.82	35 x 30	2.96	35 x 35	3.05
1200	128	25 x 45	3.27	25 x 50	3.46	25 x 50	3.44	30 x 45	3.60
				30 x 35	3.25	30 x 40	3.38	35 x 40	3.51
				35 x 30	3.24	35 x 30	3.32		
1500	158	30 x 40	3.77	30 x 45	3.90	30 x 50	3.93	35 x 45	3.92
				35 x 35	3.75	35 x 40	3.83		
1800	188	30 x 45	4.10	30 x 50	4.33	35 x 45	4.37		
				35 x 35	4.08	35 x 40	4.32		
2200	228	35 x 45	4.72	35 x 45	4.60	35 x 50	5.00		
2700	278	35 x 50	5.30	35 x 50	5.05				

Maximum Allowable Ripple Current (Arms) at 85°C 120Hz

Case Size φD x L(mm)

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### DIMENSIONS

Voltage (Code)		250V		315V		350V		385V	
Cap.( $\mu$ F)	Code	Case Size	Ripple Current						
68	686							20 x 25	0.60
								20 x 30	0.67
82	826							22 x 25	0.70
								20 x 30	0.80
100	107							22 x 30	0.82
								20 x 35	0.89
120	127					20 x 30	0.91	22 x 30	0.91
						22 x 25	0.99	25 x 25	0.95
150	157			20 x 30	0.95	20 x 35	1.05	20 x 40	1.05
						22 x 30	1.14	22 x 35	1.04
						25 x 25	1.16	25 x 30	1.08
180	187	20 x 25	1.14	20 x 35	1.08	20 x 40	1.18	22 x 40	1.18
				22 x 30	1.23	22 x 35	1.28	25 x 35	1.20
				25 x 25	1.31	25 x 30	1.30	30 x 25	1.28
220	227	20 x 30	1.20	20 x 40	1.23	22 x 40	1.40	22 x 45	1.33
		22 x 25	1.18	22 x 35	1.34	25 x 35	1.46	25 x 35	1.44
270	277	20 x 30	1.35	22 x 40	1.60	22 x 45	1.62	25 x 40	1.56
		22 x 30	1.43	25 x 30	1.62	25 x 35	1.65	30 x 35	1.62
						30 x 30	1.71		
330	337	20 x 35	1.60	22 x 45	1.82	22 x 50	1.78	25 x 50	1.80
		22 x 30	1.58	25 x 35	1.85	25 x 40	1.88	30 x 40	1.85
		25 x 25	1.53	30 x 30	1.89	30 x 35	1.93	35 x 30	1.85
390	397	20 x 40	1.83	22 x 50	1.97	25 x 45	2.04	30 x 40	2.04
		22 x 35	1.79	25 x 40	2.01	30 x 35	2.12	35 x 35	2.06
		25 x 30	1.79	30 x 30	2.05	35 x 30	2.19		
470	477	22 x 40	2.05	25 x 45	2.20	30 x 40	2.41	30 x 50	2.27
		25 x 35	2.05	30 x 35	2.27	35 x 35	2.43	35 x 40	2.30
		30 x 25	1.94	35 x 30	2.25				
560	567	22 x 45	2.36	30 x 40	2.50	30 x 45	2.60	35 x 45	2.57
		25 x 35	2.24	35 x 35	2.56	35 x 35	2.62		
		30 x 30	2.24						
680	687	25 x 40	2.54	30 x 45	2.67	35 x 40	3.00	35 x 50	2.80
		30 x 35	2.58	35 x 40	2.90				
820	827	25 x 50	2.87	30 x 50	3.12	35 x 50	3.30		
		30 x 35	2.84	35 x 45	3.29				
		35 x 30	2.82						
1000	108	30 x 45	3.39	35 x 50	3.40				
		35 x 35	3.31						
1200	128	30 x 50	3.80						
		35 x 40	3.66						
1500	158	35 x 45	4.12						
1800	188	35 x 50	4.31						

Maximum Allowable Ripple Current (Arms) at 85°C 120Hz

Case Size  $\phi$ D x L(mm)

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### DIMENSIONS

Voltage (Code)		400V		420V		450V			
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current		
56	566					20 x 25	0.58		
68	686	20 x 25	0.71	20 x 25	0.65	20 x 30	0.67		
						22 x 25	0.68		
		20 x 30	0.78	20 x 30	0.73	20 x 35	0.76		
82	826	22 x 25	0.80	22 x 25	0.75	22 x 30	0.82		
		20 x 30	0.90	20 x 35	0.85	20 x 35	0.84		
100	107	22 x 30	0.94	22 x 30	0.87	22 x 35	0.90		
		25 x 25		25 x 25	0.92	25 x 25	0.92		
		20 x 35	1.02	20 x 35	0.99	20 x 40	0.94		
120	127	22 x 30	1.04	22 x 30	1.01	22 x 35	1.02		
		25 x 25	1.08	25 x 25	1.03	25 x 30	1.04		
		20 x 40	1.16	20 x 45	1.15	30 x 25	1.07		
150	157	22 x 35	1.18	22 x 35	1.19	22 x 40	1.12		
		25 x 30	1.21	25 x 30	1.19	25 x 35	1.19		
		30 x 25	1.14	30 x 25		30 x 30	1.23		
180	187	22 x 40	1.34	22 x 45	1.36	22 x 50	1.26		
		25 x 35	1.37	25 x 35	1.37	25 x 40	1.33		
		30 x 25	1.45	30 x 25	1.35	30 x 30	1.38		
220	227	22 x 45	1.50	22 x 50	1.69	25 x 45	1.51		
		25 x 35	1.56	25 x 40	1.58	30 x 35	1.56		
		30 x 30	1.58	30 x 30	1.56	35 x 30	1.58		
270	277	25 x 40	1.70	25 x 45	1.83	25 x 50	1.65		
		30 x 35	1.73	30 x 35	1.72	30 x 40	1.80		
		35 x 30		35 x 30	1.76	35 x 35	1.81		
330	337	25 x 50	1.90	25 x 50	2.18	30 x 45	2.02		
		30 x 40	1.95	30 x 40	1.98	35 x 35	2.05		
		35 x 30	1.95	35 x 35	2.04				
390	397	30 x 40	2.15	30 x 45	2.34	30 x 50	2.24		
		35 x 35	2.17	35 x 35	2.26	35 x 40	2.27		
470	477	30 x 50	2.39	30 x 50	2.67	35 x 45	2.55		
		35 x 40	2.42	35 x 40	2.60				
560	567	35 x 45	2.71	35 x 45	2.93				
680	687	35 x 50	2.95						

Maximum Allowable Ripple Current (Arms) at 85°C 120Hz

Case Size φD x L(mm)