SURGE
Components Inc.
1016 Grand Boulevard
Deer Park, NY 11729 • 631 595-1818 • FAX: 631 595-1283

ALUMINUM ELECTROLYTIC CAPACITORS

FEATURES

- ☐ HAS A SNAP-IN TERMINAL WHICH CAN SOLDER TO PCB DIRECTLY AND NEED NOT FIXTURE TO SAVE PROCESSING TIME
- ☐ SUITABLE FOR ELECTRONIC EQUIPMENT WITH MEDIUM-HIGH VOLTAGE CIRCUITS
- ☐ PRINTED CIRCUIT BOARD TERMINAL SNAP-IN TYPE AND LUG TERMINAL TYPE AVAILABLE

SPECIFICATIONS

Operating Temperature Range

16~400V	450V
-40˚C~+105˚C	-25˚C~+105˚C

Capacitance Tolerance: ±20% (at 120 Hz, 20˚C)

Leakage Current (at 20 ˚C)

I=0.02CV or 1.5mA whichever is smaller (after 5 minutes)
Where, C=rated capacitance in μF. V=rated DC working voltage in V.

Dissipation Factor (Tan δ at 120 Hz, 20 ˚C)

Rated Voltage	16	25	35	50	63	100	160	200	250	350	400	450
Tan δ (max)	0.40	0.30	0.25	0.20	0.15	0.15	0.10*	0.10*	0.10*	0.15*	0.15	0.15

*:0.15 for ø D=35 mm

Low Temperature Characteristics (at 120Hz)

Impedance ratio shall not exceed the values given in the table below.

Rated Voltage		16	25	35	50	63	100	160	200	250	350	400	450
Impedance Ratio	Z(-25˚C)/Z(+20˚C)	4	3	3	2	2	2	4	4	4	4	8	8
	Z(-40˚C)/Z(+20˚C)	15	10	8	6	6	5	12	12	12	-	-	-

Load Life Test

Test Time	2000 Hrs
Capacitance Change	≤ ± 20%
Dissipation Factor	Less than 200% of specified value
Leakage Current	Within specified value

*The above specifications shall be satisfied when the capacitors are restored to 20 ˚C after the rated voltage applied for 2000 hrs at 105˚C.

Shelf Life Test

Test Time	1000 Hrs
Capacitance Change	≤ ± 20%
Dissipation Factor	Less than 150% of specified value
Leakage Current	Within specified value

*The above specifications shall be satisfied when the capacitors are restored to 20 ˚C after exposing them for 1000 hrs at 105 ˚C without voltage applied.

Ripple Current & Frequency Multipliers

Freq. (Hz) / W. V. (V)	60	120	500	1K	10K up
Under 100	0.92	1.00	1.13	1.19	1.20
160~250	0.81	1.00	1.32	1.45	1.50
350 to up	0.77	1.00	1.30	1.41	1.43

Ripple Current & Temperature Multipliers

Temperature(˚C)	55	70	85	105
Multiplier	2.1	1.8	1.5	1.0

Standards: Satisfies Characteristic W of JIS C 5141

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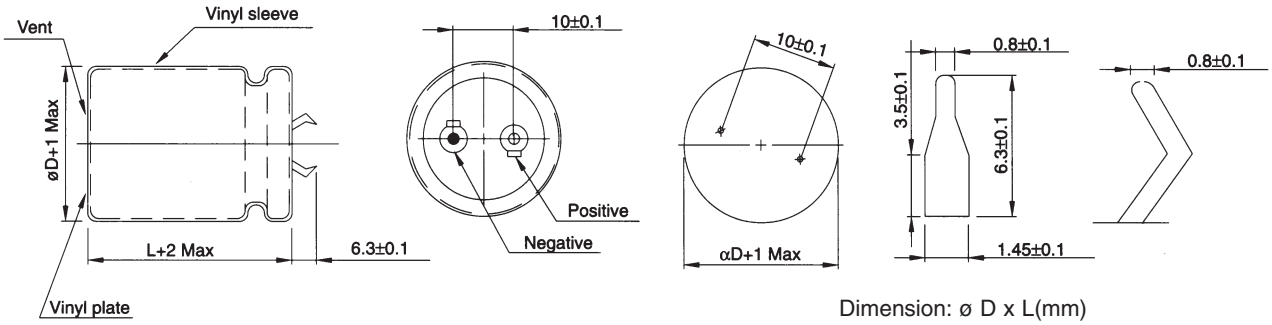
NEW
SLSG Series

DIAGRAM OF DIMENSIONS

Unit: mm



Dimension: ø D x L(mm)
Ripple Current: A/rms at 120 Hz, 105 ˚C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC		16V (1C)				25V (1E)				35V (1V)			
µF	code	22	25	30	35	22	25	30	35	22	25	30	35
4700	472					22 x 25 1.50					25 x 25 1.80		
5600	562					22 x 25 1.72				22 x 35 1.95	25 x 30 1.96	30 x 25 1.99	
6800	682	22 x 25 1.57				22 x 30 1.86	25 x 25 1.87			22 x 40 2.20	25 x 35 2.23		
8200	822	22 x 25 1.94				22 x 35 2.11	25 x 30 2.12	30 x 25 2.15		22 x 50 2.55	25 x 40 2.53	30 x 30 2.75	35 x 25 2.75
10000	103	22 x 30 1.97	25 x 30 2.12			22 x 40 2.39	25 x 35 2.42				25 x 45 2.87	30 x 35 2.90	
12000	123	22 x 35 2.22	25 x 30 2.24	30 x 25 2.45		22 x 45 2.69	25 x 40 2.74	30 x 30 2.70	35 x 25 2.74		25 x 50 3.24	30 x 40 3.23	35 x 30 2.99
15000	153	22 x 40 2.55	25 x 35 2.58				25 x 45 3.15	30 x 35 3.13	35 x 30 3.27			30 x 45 3.72	35 x 35 3.67
18000	183	22 x 45 2.87	25 x 40 2.92	30 x 30 2.88	35 x 25 2.92		25 x 50 3.54	30 x 40 3.54					35 x 40 4.37
22000	223		25 x 45 3.32	30 x 35 2.29				30 x 45 4.04	35 x 35 3.64				35 x 50 4.92

V.DC		50V (1H)				63V (1J)				100V (2A)			
µF	code	22	25	30	35	22	25	30	35	22	25	30	35
1200	122					22 x 25 1.19				22 x 40 1.69	25 x 35 1.71	30 x 25 1.68	
1500	152									22 x 45 1.94	25 x 40 1.98	30 x 30 1.95	35 x 25 1.98
1800	182	22 x 25 1.33				22 x 30 1.51	25 x 25 1.52				25 x 45 2.23	30 x 35 2.50	
2200	222	22 x 25 1.48				22 x 35 1.73	25 x 30 1.74				25 x 50 2.53	30 x 40 2.70	35 x 30 2.50
2700	272	22 x 30 1.69	25 x 25 1.70			22 x 40 1.97	25 x 35 1.99	30 x 25 1.76				30 x 45 2.88	35 x 35 2.86
3300	332	22 x 35 1.93	25 x 35 1.85			22 x 50 2.29	25 x 40 2.27	30 x 30 2.24	35 x 25 2.06			30 x 50 3.28	35 x 40 3.27
3900	392	22 x 40 2.16	25 x 35 2.18	30 x 25 1.95			25 x 45 2.54	30 x 35 2.55					35 x 45 3.67
4700	472	22 x 45 2.43		30 x 30 2.25	35 x 25 2.48		25 x 50 2.86	30 x 40 2.86	35 x 30 2.79				35 x 50 3.67
5600	562	22 x 50 2.75	25 x 40 2.70	30 x 35 2.76				30 x 45 3.22	35 x 35 3.19	Case size ø x L(mm) →			35 x 50
6800	682		25 x 50 3.30	30 x 40 3.30	35 x 30 3.25			30 x 50 3.65	35 x 40 3.64	Ripple Current A/rms →			3.80
8200	822			30 x 45 3.60	35 x 35 3.55				35 x 45 3.90				
10000	103			30 x 50 4.04	35 x 40 4.03				35 x 50 4.40				
12000	123				35 x 45 4.55								

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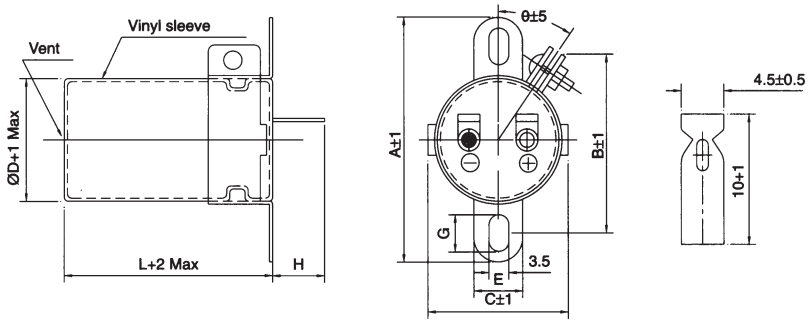
DIAGRAM OF DIMENSIONS



Unit: mm

MECHANICAL SPECIFICATIONS

øD	A	B	C	E	G	H	ø
22	43	35	30	10	5.5	12	45
25	48	38	33	10	6.0	12	45
30	52	42	38	10	6.0	12	45
35	48	48	44	10	7.0	12	30

Dimension: ø D x L(mm)
Ripple Current: A/rms at 120 Hz, 105 ˚C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC / øD		160V (2C)				200V (2D)				250V (2E)			
µF		22	25	30	35	22	25	30	35	22	25	30	35
180	181					22 x 25 0.80				22 x 30 0.85	25 x 25 0.85		
										22 x 25 0.78			
220	221					22 x 25 0.89				22 x 35 0.90	25 x 30 1.0	30 x 25 1.00	
270	271	22 x 25 0.86				22 x 30 1.0				22 x 40 1.14			
						22 x 25 0.87	25 x 25 1.00			22 x 35 1.00			
330	331	22 x 30 1.20				22 x 35 1.20	25 x 30 1.21			22 x 45 1.26	25 x 35 1.20	30 x 30 1.13	
		22 x 25 1.10				22 x 30 1.13	25 x 25 1.13			22 x 40 1.10	25 x 30 1.13		
390	391	22 x 35 1.30				22 x 40 1.31				22 x 50 1.49	25 x 40 1.49		
		22 x 30 1.22	25 x 25 1.15			22 x 35 1.25		30 x 25 1.20		22 x 45 1.25	25 x 35 1.27		
470	471	22 x 40 1.40	25 x 30 1.41			22 x 45 1.40	25 x 35 1.41	30 x 25 1.50		22 x 50 1.57	25 x 45 1.57	30 x 35 1.57	35 x 30 1.30
		22 x 35 1.35	25 x 25 1.33			22 x 40 1.32	25 x 30 1.32				25 x 40 1.38	30 x 30 1.37	
560	561	22 x 40 1.50	25 x 35 1.51			22 x 50 1.56	25 x 40 1.53	30 x 30 1.52			22 x 45 1.79	30 x 40 1.79	35 x 30 1.79
			25 x 30 1.45	30 x 25 1.40		22 x 45 1.53	25 x 35 1.50					30 x 35 1.58	
680	681	22 x 50 1.71	25 x 40 1.70	30 x 30 1.72		22 x 50 1.74	25 x 45 1.74	30 x 35 1.73	35 x 30 1.73		25 x 50 1.84	30 x 40 2.00	
		22 x 45 1.65	25 x 35 1.65	30 x 25 1.65			25 x 40 1.70		35 x 25 1.72				35 x 35 1.58
820	821	22 x 50 1.93	25 x 45 2.01	30 x 35 2.00	35 x 20 2.00		25 x 50 2.04	30 x 40 1.93	35 x 25 1.93			30 x 50 2.16	35 x 40 1.81
			25 x 40 1.85	30 x 30 1.76	35 x 25 1.91							30 x 45 1.85	
1000	102		25 x 45 2.20	30 x 40 2.22	35 x 35 2.20			30 x 50 2.30	35 x 40 2.30				35 x 45 2.00
				30 x 35 2.02	35 x 30 2.44			30 x 45 2.20	35 x 35 2.20				
1200	122		25 x 50 2.45	30 x 45 2.44	35 x 35 2.50			30 x 50 2.60	35 x 40 2.65	Case size ø x L(mm) →			35 x 45
				30 x 40 2.35						Ripple Current A/rms →			3.41
1500	152			30 x 45 2.82	35 x 40 2.70				35 x 50 2.80				
1800	182			30 x 50 3.31	35 x 50 3.10				35 x 50 3.47				

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: ø D x L(mm)
Ripple Current: A/rms at 120 Hz, 105 ˚C

V.DC / øD		350V (2V)				400V (2G)				450V (2W)			
µF		22	25	30	35	22	25	30	35	22	25	30	35
56	560									22 x 25 0.40			
68	680	22 x 25 0.51				22 x 30 0.51				22 x 30 0.50	25 x 25 0.50		
						22 x 25 0.50							
82	820	22 x 25 0.56				22 x 30 0.58	25 x 25 0.64			22 x 35 0.56			
100	101	22 x 30 0.69	25 x 25 0.69			22 x 35 0.61	25 x 30 0.64			22 x 40 0.64	25 x 30 0.57	30 x 25 0.64	
120	121	22 x 35 0.75				22 x 40 0.72	25 x 35 0.72	30 x 25 0.76		22 x 45 0.72	25 x 35 0.71		
						22 x 35 0.67	25 x 30 0.69						
150	151	22 x 40 0.82	25 x 30 0.83	30 x 25 0.83		22 x 50 0.82	25 x 40 0.84	30 x 30 0.76	35 x 30 0.76	22 x 50 0.79	25 x 40 0.75	30 x 30 0.74	35 x 25 0.75
						22 x 40 0.77	25 x 35 0.78						
180	181	22 x 45 0.92	25 x 35 0.92	30 x 30 0.82		22 x 50 0.95	25 x 45 0.94	30 x 35 0.92	35 x 30 0.94		25 x 45 0.84	30 x 35 0.87	
							25 x 40 0.83	30 x 30 0.82	35 x 25 0.90				
220	221	22 x 50 1.05	25 x 40 1.04	30 x 30 1.02	35 x 25 1.04		25 x 50 1.07	30 x 40 1.06	35 x 30 1.08		25 x 50 0.98	30 x 40 0.98	35 x 30 1.00
							25 x 45 0.93	30 x 35 0.91					
270	271		25 x 50 1.18	30 x 35 1.17	35 x 30 1.20		25 x 50 1.21	30 x 45 1.21	35 x 35 1.12			30 x 45 1.15	35 x 35 1.17
			25 x 45 1.00					30 x 40 1.10					
330	331			30 x 45 1.34				30 x 45 1.39	35 x 40 1.25			30 x 50 1.38	35 x 45 1.70
				30 x 40 1.15	35 x 35 1.15								
390	391			30 x 50 1.51	35 x 40 1.47			30 x 50 1.55	35 x 45 1.55	Case size ø x L(mm) →			35 x 50
				30 x 45 1.25	35 x 35 1.25					Ripple Current A/rms →			1.94
470	471				35 x 45 1.69				35 x 50 1.72				35 x 50 2.13
					35 x 40 1.34								
560	561				35 x 50 1.90								
					35 x 45 1.51								

PART NUMBERING SYSTEM