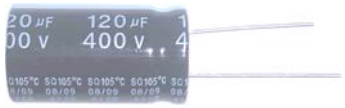
ALUMINUM ELECTROLYTIC CAPACITORS

SQ

For adapter and power supply applications Series

■ Features: 105℃ 2000 hours ;Wide temperature range;High Ripple
■ Recommended Applications :AV(TV, Video, Audio); Monitor/Computer; OA/HA/Communication; Converter/Inverter; Energy saving lamp; PFC circuit; SMPS; Ballast; Adapter
■ Corresponding product to RoHS

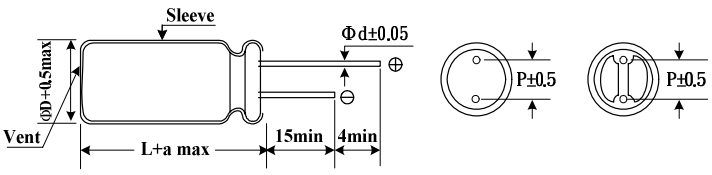
SQ
↑ High Ripple
SH



■ **Specifications**

Item	Characteristics
Operating Temperature Range	-40~+105℃
Rated Voltage Range(WV)	160 ~ 450VDC
Rated Capacitance Range	2.2 ~ 220 μF
Capacitance Tolerance	± 20 % at 120Hz , 20℃
Leakage Current (MAX) (20℃)	I≦0.03CV +10 μA (After rated voltage applied for 3 minutes) I= Leakage Current (μA) C= Nominal Capacitance (μF) V= Rated Voltage (V)
Dissipation Factor (MAX) (tan δ) (120Hz,20℃)	WV: 160 / 200 / 250 / 350 / 400 / 450 tan δ: 0.15 / 0.15 / 0.15 / 0.24 / 0.24 / 0.24
Low Temperature Stability Impedance Ratio (MAX)	WV / Z (120Hz): 160 / 200 / 250 / 350 / 400 / 450 Z(-25℃) / Z(20℃): 3 / 3 / 3 / 3 / 3 / 3 Z(-40℃) / Z(20℃): 6 / 6 / 6 / 6 / 6 / 6
Endurance	After apply rated voltage with rated ripple current for 2000hrs at 105℃ , the capacitors shall meet the following requirements. Capacitance Change: Within ± 20 % of initial value Dissipation Factor: Not more than 200% of the specified value Leakage Current: Not More than the specified value
Shelf Life	After leaving capacitors under no load at 105℃ for 1000 hours, the capacitors shall meet the same requirement as Endurance.

■ **Diagram of Dimensions**



φD	10	13	16	18
P	5	5	7.5	7.5
φd	0.6	0.6	0.8	0.8
a	1.5	2	2	2

■ **Multiplier for Ripple Current**

Frequency coefficient

Frequency (Hz)		50	120	1K	10K	100K
Coefficient	＜33 μF	0.80	1.00	1.36	1.54	1.80
	≧33 μF	0.85	1.00	1.28	1.35	1.40

Frequency (Hz)		50	120	1K	10K	100K
Coefficient	＜33 μF	0.45	0.55	0.75	0.85	1.00
	≧33 μF	0.60	0.70	0.90	0.95	1.00

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■Dimensions, Rated Ripple Current

Capacitance (μF)	Rated (Surge) Voltage								
	160(200)			200(250)			250(300)		
	φ DxL	Ripple		φ DxL	Ripple		φ DxL	Ripple	
		120Hz	100KHz		120Hz	100KHz		120Hz	100KHz
10							10x20	120	220
22	10x20	195	350	10x20	195	350	13x25	165	300
33	13x20	315	450	13x20	365	520	13x25	280	400
47	13x25	420	600	13x25	420	600	16x25	505	720
68	13x25	420	600	16x25	665	950	16x32	570	810
100	16x25	665	950	16x32	840	1200	18x36	735	1050
220	18x36	980	1400						

Capacitance (μF)	Rated (Surge) Voltage								
	350(400)			400(450)			450(500)		
	φ DxL	Ripple		φ DxL	Ripple		φ DxL	Ripple	
		120Hz	100KHz		120Hz	100KHz		120Hz	100KHz
2.2	10x16	30	50	10x16	80	140	10x16	60	110
3.3	10x16	35	60	10x20	110	195	10x20	75	135
4.7	10x20	45	78	10x25	120	220	13x20	105	190
10	13x20	75	130	10x16	135	243	13x25	140	250
				13x25	200	360			
22	16x25	115	205	13x20	240	432	13x20	180	324
				13x25	265	477	13x25	200	360
				16x25	315	570	16x32	265	480
33	16x32	180	255	16x32	490	700	16x25	350	500
							18x36	455	650
47	18x32	225	320	16x25	350	490	16x25	380	532
				18x32	600	860			
68				16x30	510	714	18x25	470	658
				16x32	550	770			
82							18x36	520	720
100	18x45	370	530	18x32	680	952	18x40	620	860
120				18x32	750	1050	18x40	650	910
							18x45	720	1000
150				18x36	800	1120			

☆ Size: D φ x L (mm) ☆ Ripple Current : mA/rms,105℃