Miniature Aluminum Electrolytic Capacitors

SJ [Low Impedance and High Ripple Series]

105°C 1000 ~ 5000 Hours, Low Impedance and High Ripple Current



DESCRIPTION

AV (TV, Video, Audio), Monitor / Computer, OA / HA / Communication, Converter / Inverter, Adapter, SMPS

MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

FREQUENCY (Hz)	50	120	1K	10K	100K
5.6~390μF	0.60	0.70	0.85	0.95	1.00
470~1000μF	0.65	0.75	0.90	0.98	1.00
1200~6800μF	0.75	0.80	0.95	1.00	1.00

ENDURANCE

CASE		LIFE TIME (HOURS)
L = 7		1000
L ≥ 11	Dø ≤ 6.3	2000
	Dø = 8	3000
	Dø = 10	4000
	Dø ≥ 13	5000

ELECTRICAL CHARACTERISTICS

Operating Temperature Range : -40 ~ +105°C

Rated Voltage Range : 6.3 ~ 100V

Rated Capacitance Range : 5.6 ~ 6800μF

Capacitance Tolerance : -20 ~ +20% at 120KHz

DC Leakage Current (μA) : I = 0.01 CV (μA) or 3μA whichever is greater.

Dissipation Factor

WV (V) :	6.3	10	16	25	35	50	63	100
D.F. (%) :	22	19	16	14	12	10	9	8

WV (V) :		6.3	10	16	25	35	50	63	100
Impedance :	Z - 25°C / Z + 20°C	2	2	2	2	2	2	2	2
	Z - 40°C / Z + 20°C	3	3	3	3	3	3	3	3

Endurance: After the rated voltage and maximum ripple current have been applied at 105°C for 1000 ~ 5000 hours, the capacitors shall meet the following requirements.

(a) Capacitance Change: Within±25% of the Initial Value

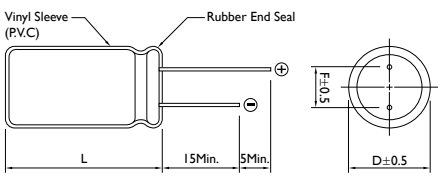
(b) Dissipation Factor: Not Exceeding 200% of the Specified Value

(c) Leakage Current: Not Exceeding the Specified Value

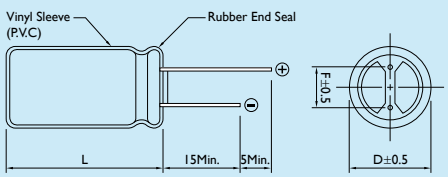
Shelf Life: After having been placed at 105°C without voltage applied for 1000 hours. (500 hours for L=7) The capacitors shall meet the same requirements as Endurance.

DIAGRAM OF DIMENSIONS

Dimensions: mm



Rubber Stand-off



L ≤ 16 L + 1.5Max.
L > 16 L + 2Max.
Dø = 8 & 10 L + 2.5Max.

Dø < 20 Dø + 0.5
Dø ≥ 20 Dø + 1

Dø	F	dø
4.0	1.5	0.45
5.0	2.0	0.5
6.3	2.5	
8.0	3.5	0.6
10.0	5.0	
13.0		
16.0	7.5	0.8
18.0		

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE W V (SURGE VOLTAGE W V)														
	6.3 (8)			10 (13)			16 (20)			25 (32)			35 (44)		
	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR
10													4 x 7	130	0.96
15										4 x 7	130	0.94	5 x 7	190	0.57
18							4 x 7	130	0.92	5 x 7	170	0.69	5 x 7	210	0.47
27				4 x 7	130	0.89	5 x 7	190	0.61	5 x 7	210	0.46	5 x 11	230	0.37
33				5 x 7	160	0.75	5 x 7	210	0.45	5 x 11	220	0.42	5 x 11	250	0.30
39	4 x 7	130	0.85	5 x 7	175	0.64	5 x 11	220	0.43	5 x 11	230	0.36	6.3 x 7	300	0.25
47	5 x 7	175	0.70	5 x 7	190	0.53	5 x 11	230	0.36	5 x 11	250	0.30	6.3 x 11	380	0.15
													8 x 7	350	0.19
56	5 x 7	190	0.56	5 x 7	210	0.44	5 x 11	250	0.30	6.3 x 7	300	0.24	6.3 x 11	410	0.13
													8 x 7	380	0.16
68	5 x 7	210	0.43	5 x 11	210	0.44	6.3 x 7	300	0.24	6.3 x 11	340	0.19	8 x 11	510	0.12
										8 x 7	310	0.22			
100	5 x 11	200	0.43	5 x 11	250	0.30	6.3 x 11	370	0.16	6.3 x 11	410	0.13	8 x 11	620	0.105
	6.3 x 7	240	0.35				8 x 7	350	0.18	8 x 7	380	0.15			
120	5 x 11	220	0.38	6.3 x 7	300	0.23	6.3 x 11	410	0.13	8 x 11	560	0.12	8 x 11	680	0.088
	6.3 x 7	270	0.29				8 x 7	380	0.15						
150	5 x 11	250	0.30	8 x 7	350	0.18	8 x 11	510	0.12	8 x 11	630	0.105	8 x 11	760	0.072
	6.3 x 7	300	0.23												
180	8 x 7	340	0.18	8 x 7	380	0.15	8 x 11	560	0.11	8 x 11	690	0.088	8 x 15	910	0.068
													10 x 12	930	0.065
220	8 x 7	380	0.15	6.3 x 11	410	0.13	8 x 11	620	0.10	8 x 11	760	0.072	10 x 12	1030	0.053
270	6.3 x 11	370	0.16	8 x 11	580	0.12	8 x 11	690	0.088	8 x 15	900	0.068	8 x 20	1250	0.041
										10 x 12	930	0.065			
330	6.3 x 11	410	0.13	8 x 11	640	0.10	8 x 11	760	0.072	10 x 12	1030	0.053	10 x 15	1430	0.038
470	8 x 11	680	0.086	8 x 11	760	0.072	8 x 15	1000	0.056	8 x 20	1250	0.041	10 x 19.5	1820	0.026
							10 x 12	1030	0.053	10 x 15	1430	0.038			
560	8 x 11	760	0.072	8 x 15	910	0.068	8 x 20	1140	0.049	10 x 19.5	1650	0.032	10 x 25	2150	0.023
				10 x 12	940	0.064	10 x 15	1300	0.046						
680	8 x 15	900	0.062	10 x 12	1030	0.053	8 x 20	1250	0.041	10 x 19.5	1820	0.026	13 x 20	2360	0.023
							10 x 15	1430	0.038						

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz
2. ESR: 100KHz / 20°C (Ω Max.)

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)														
	6.3 (8)			10 (13)			16 (20)			25 (32)			35 (44)		
	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR	SIZE	RIPPLE	ESR
820	8 x 15	1000	0.056	8 x 20	1130	0.05	10 x 19.5	1650	0.032	10 x 25	2150	0.023	13 x 25	2510	0.02
				10 x 15	1300	0.046									
1000	10 x 12	1030	0.053	8 x 20	1250	0.041	10 x 19.5	1820	0.026	13 x 20	2360	0.021	13 x 25	2770	0.018
				10 x 15	1430	0.038									
1200	8 x 20	1250	0.041	10 x 19.5	1820	0.026	10 x 25	2150	0.023	13 x 25	2510	0.02	13 x 30	3290	0.016
	10 x 15	1430	0.038										16 x 20	3140	0.018
1500	10 x 19.5	1820	0.026	10 x 25	2150	0.023	13 x 20	2360	0.021	13 x 25	2770	0.018	13 x 35	3400	0.015
1800	10 x 25	1940	0.025	13 x 20	2230	0..022	13 x 25	2510	0.02	13 x 30	3290	0.016	16 x 25	3460	0.016
										16 x 20	3140	0.018			
2200	10 x 25	2150	0.023	13 x 20	2360	0.021	13 x 25	2770	0.018	13 x 35	3400	0.015			
2700	13 x 20	2230	0.022	13 x 25	2510	0.02	13 x 30	3290	0.016	16 x 25	3460	0.016			
							16 x 20	3140	0.018						
3300	13 x 20	2360	0.021	13 x 25	2770	0.018	13 x 35	3400	0.015						
3900	13 x 25	2770	0.018	13 x 30	3290	0.016	16 x 25	3460	0.016						
				16 x 20	3140	0.018									
4700	13 x 30	3290	0.016	13 x 35	3400	0.015									
5600	13 x 35	3400	0.015	16 x 25	3460	0.016									
	16 x 20	3140	0.018												
6800	16 x 25	3460	0.016												

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz
2. ESR: 100KHz / 20°C (Ω Max.)

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE W V (SURGE VOLTAGE W V)								
	50 (63) SIZE	RIPPLE	ESR	63 (79) SIZE	RIPPLE	ESR	100 (125) SIZE	RIPPLE	ESR
5.6	4 x 7	130	1.00						
6.8	5 x 7	170	0.74				5 x 11	125	1.40
10	5 x 7	210	0.50				6.3 x 11	170	0.95
15	6.3 x 7	220	0.38	5 x 11	136	1.190	6.3 x 11	210	0.57
	5 x 11	215	0.48						
22	6.3 x 7	300	0.26	6.3 x 11	176	0.880	8 x 11	330	0.44
	5 x 11	240	0.34						
27	8 x 7	340	0.21	6.3 x 11	192	0.580	8 x 11	360	0.36
33	8 x 7	380	0.17	6.3 x 11	216	0.470	8 x 15	375	0.30
39	6.3 x 11	330	0.16	8 x 11	308	0.420	8 x 15	450	0.25
47	6.3 x 11	360	0.15	8 x 11	336	0.350	10 x 12	450	0.24
56	6.3 x 11	390	0.14	8 x 11	400	0.350	8 x 20	570	0.19
68	8 x 11	600	0.11	8 x 15	488	0.260	10 x 15	580	0.18
				10 x 12	500	0.240			
82	8 x 11	660	0.09	8 x 15	536	0.220	10 x 19.5	750	0.13
				10 x 12	552	0.200	13 x 16	740	0.13
100	8 x 11	730	0.074	10 x 15	640	0.160	10 x 25	880	0.12
120	8 x 15	950	0.065	8 x 20	656	0.160	13 x 20	1050	0.094
				10 x 15	760	0.150			
150	10 x 12	980	0.061	10 x 19.5	808	0.130	13 x 25	1100	0.085
				13 x 16	832	0.130			
180	8 x 20	1190	0.046	10 x 19.5	880	0.110	13 x 25	1200	0.071
				13 x 16	912	0.110			
220	10 x 15	1370	0.042	10 x 25	1040	0.099	13 x 30	1410	0.063
							16 x 20	1300	0.071
270	10 x 19.5	1580	0.03	13 x 20	1200	0.081	13 x 35	1560	0.052
							16 x 25	1600	0.053
							18 x 20	1470	0.069
330	10 x 25	1870	0.028	13 x 25	1480	0.058	13 x 40	1700	0.046
390	13 x 20	1870	0.028	13 x 30	1640	0.063	16 x 32	1750	0.041
				16 x 20	1448	0.073	18 x 25	1620	0.049

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz
2. ESR: 100KHz / 20°C (Ω Max.)

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)								
	50 (63) SIZE	RIPPLE	ESR	63 (79) SIZE	RIPPLE	ESR	100 (125) SIZE	RIPPLE	ESR
470	13 x 20	2050	0.027	13 x 30	1800	0.061	16 x 36	1890	0.033
				16 x 20	1592	0.061	18 x 32	1780	0.039
560	13 x 25	2410	0.023	13 x 25	1960	0.047	16 x 40	2080	0.03
				16 x 25	2040	0.043	18 x 36	2060	0.031
680	13 x 30	2860	0.021	13 x 40	2224	0.039	18 x 40	2570	0.028
				18 x 20	1960	0.052			
820	13 x 35	2960	0.019	16 x 32	2248	0.035			
	16 x 20	2730	0.023	18 x 25	2224	0.042			
1000	16 x 32	3350	0.021	16 x 36	2227	0.028			
				18 x 32	2616	0.034			
1200				16 x 40	2672	0.026			
				18 x 36	2648	0.027			
1500				18 x 40	2736	0.024			

Note: 1. Ripple Current: (mA/rms) 105°C, 100KHz
2. ESR: 100KHz / 20°C (Ω Max.)