

Miniature Size Aluminum Electrolytic Capacitors

SK [For General]

85°C Single-Ended Lead Aluminum Electrolytic Capacitors



DESCRIPTION

Lower-cost capacitors expressly intended for high density printed circuit board.

Very High Volumetric Efficiency

Ideally suited for general-purpose applications, decoupling, by pass, and filtering circuit in entertainment electronics.

Feature High CV Product with Moderate Cost

Multiplier for Ripple Current

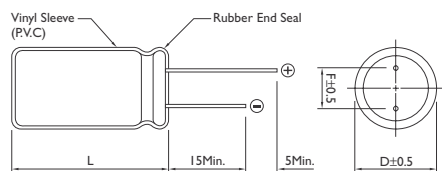
Frequency coefficient

Frequency (Hz)	120	300	1K	10K~100K
6.3~100V Below~68μF	1.00	1.20	1.30	1.50
6.3~100V 100~680μF	1.00	1.10	1.15	1.20
6.3~110V 1000~22000μF	1.00	1.05	1.10	1.15
160~450V Below~220μF	1.00	1.25	1.40	1.40
160~450V 220μF Above	1.00	1.10	1.13	1.13

Temperature coefficient

Temperature(°C)	50	70	85
Factor	1.30	1.15	1.00

DIAGRAM OF DIMENSIONS



ELECTRICAL CHARACTERISTICS

Operating Temperature : -40° ~ +85°C / -25° ~ +85°C

Working Voltage : 6.3 ~ 100V / 160 ~ 450V

Rate Capacitance Range : 0.1 ~ 22000μF / 0.47 ~ 470μF

Capacitance Tolerance : -20 ~ +20%

DC Leakage Current (μA) : 0.01 CV or 3 μA / 0.03 CV + 10 Whichever is greater.
(After 2 Minutes Application of DC Working Voltage at 25°C)

Dissipation Factor : at 120Hz, 25°C

WV (V):	6.3	10	16	25	35	50	63	100	160 ~ 250	350 ~ 450
D.F (%) :	22	19	16	14	12	10	9	8	15	20

For capacitor whose capacitance exceeds 1000μF. The value of DF(%) is increased by 2% for every addition of 1000μF.

Load Life : 2000 Hours at 85°C Assured with Full Rated Maximum Ripple Current Applied

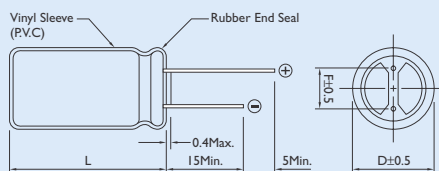
- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : Not Exceed 200% of Initial Requirement
- (c) Leakage Current : Not Exceed the Initial Requirement

Shelf Life : 1000 Hours, No Voltage Applied at 85°C

- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : Not Exceed 200% of Initial Requirement
- (c) Leakage Current : Not Exceed 200% of Initial Requirement

Dimensions : mm

Rubber Stand-off



L ≤ 12 L + 1.5Max.
13 ≤ L ≤ 15 L + 1.0
L ≥ 16 L + 2.0Max.

Dø	F	dø
4.0	1.5	0.45
5.0	2.0	0.5
6.0	2.5	
8.0	3.5	
10.0	5.0	0.6
12.0		
13.0		
16.0	7.5	0.8
18.0		
22.0	10.0	0.8



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

CAP. (μF)	RATED VOLTAGE W V													
	6.3		10		16		25		35		50		63	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											5 × 11	1		
0.22											5 × 11	2		
0.33											5 × 11	3	5 × 11	3
0.47											5 × 11	5	5 × 11	5
0.68											5 × 11	7		
1.0											5 × 11	10	5 × 11	10
2.2											5 × 11	23	5 × 11	29
3.3											5 × 11	35	5 × 11	40
4.7			5 × 11	20	5 × 11	25	5 × 11	30	5 × 11	35	5 × 11	40	5 × 11	45
6.8											5 × 11	50		
10			5 × 11	35	5 × 11	40	5 × 11	50	5 × 11	60	5 × 11	65	5 × 11	70
15					5 × 11	50					5 × 11	80		
22	5 × 11	35	5 × 11	55	5 × 11	75	5 × 11	90	5 × 11	95	5 × 11	100	5 × 11	95
													6 × 11	115
33	5 × 11	55	5 × 11	80	5 × 11	110	5 × 11	115	5 × 11	120	5 × 11	105	6 × 11	130
											6 × 11	125	8 × 11	140
47	5 × 11	75	5 × 11	95	5 × 11	130	5 × 11	135	5 × 11	120	6 × 11	140	8 × 11	190
									6 × 11	140	8 × 11	150	6 × 11	130
68					5 × 11	150	5 × 11	135						
100	5 × 11	130	5 × 11	180	5 × 11	165	6 × 11	160	6 × 11	185	8 × 11	230	8 × 11	190
					6 × 11	185			8 × 11	230	10 × 12	250	10 × 12	300
220	5 × 11	200	5 × 11	180	6 × 11	260	8 × 11	290	10 × 12	370	10 × 12	380	10 × 15	410
	6 × 11	240			8 × 11	320	10 × 12	340	10 × 15	370	10 × 15	440	10 × 19	490
	6 × 11	260	6 × 11	265	6 × 11	290	8 × 11	315	10 × 12	420	10 × 15	490	10 × 19	540
330	8 × 11	300	8 × 11	330	8 × 11	360	8 × 15	380	10 × 15	490	10 × 19	580	13 × 20	680
							10 × 12	420						
470	6 × 11	330	6 × 11	320	8 × 11	400	8 × 15	420	10 × 15	430	10 × 19	610	13 × 20	755
	8 × 11	380	8 × 11	440	10 × 12	470	10 × 12	460	10 × 19	510	13 × 20	760	13 × 25	880
							10 × 15	540	13 × 12	640			16 × 25	8820
680	8 × 11	410	10 × 12	460	10 × 12	510	10 × 15	540	13 × 20	705			13 × 25	965
					10 × 15	565	10 × 19	595	13 × 25	780				
1000	8 × 11	460	10 × 12	580	10 × 15	630	10 × 19	760	13 × 20	950	13 × 25	1100	16 × 25	1310
	10 × 12	580	10 × 15	630	10 × 19	790	12 × 16	760	13 × 25	1100	16 × 25	1350	16 × 32	1550
							13 × 20	950						
1500			10 × 19	700					16 × 25	1240			18 × 36	2090
	10 × 19	840	10 × 19	880	10 × 25	925	13 × 25	1300	16 × 25	1600	16 × 36	1850	18 × 40	2200
2200	13 × 20	1050	13 × 20	1100	13 × 25	1350	16 × 25	1550	16 × 32	1800	18 × 36	2090	22 × 35	2200
							18 × 20	1550						
3300	10 × 19	1000	13 × 20	1250	13 × 25	1400	16 × 25	1660	16 × 36	1970	18 × 36	2170	22 × 40	2500
					16 × 25	1700	16 × 32	1950	18 × 36	2220	18 × 40	2400		
4700	13 × 20	1300	13 × 25	1500	16 × 25	1800	16 × 32	1950	18 × 36	2400	22 × 35	2240		
			16 × 25	1800	16 × 32	2100	18 × 36	2360			22 × 40	2500		
6800	16 × 25	1900	16 × 25	1900	16 × 32	1980	18 × 36	2550	22 × 40	2600				
			16 × 32	2150	16 × 36	2200								
					18 × 36	2500								
10000	16 × 25	1900	18 × 36	2500	18 × 36	2700	22 × 40	2800						
	16 × 32	2250												
15000	16 × 36	2500	18 × 36	2950	22 × 40	3150	22 × 40	3200						
22000	18 × 40	3650	22 × 40	3700	22 × 40	3800								

Note : * L, D × L : mm

* 2. mA rms at 85°C, 120Hz



CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

CAP. (μF)	RATED VOLTAGE W V													
	100		160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.22	5 × 11	5												
0.47	5 × 11	10	5 × 11	12	5 × 11	14	5 × 11	14	5 × 11	14	6 × 11	14	6 × 11	14
1.0	5 × 11	21	5 × 11	17	5 × 11	19	5 × 11	17	6 × 11	19	6 × 11	16	8 × 11	19
			6 × 11	17			6 × 11	19			8 × 11	19		
2.2	5 × 11	30	6 × 11	26	6 × 11	22	6 × 11	24	8 × 11	33	8 × 11	26	10 × 12	33
					8 × 11	27	8 × 11	30	10 × 10	33	10 × 12	33		
3.3	5 × 11	45	6 × 11	30	6 × 11	30	8 × 11	30	8 × 11	33	10 × 12	40	10 × 15	42
			8 × 11	35	8 × 11	37	10 × 12	38	10 × 12	39				
4.7	5 × 11	50	6 × 11	32	8 × 11	36	8 × 11	36	10 × 12	39	8 × 15	33	10 × 15	50
			8 × 11	40	10 × 12	45	10 × 12	45	10 × 15	45	10 × 15	45	10 × 19	50
6.8	5 × 11	55					8 × 11	40					10 × 15	50
							10 × 12	50					10 × 19	56
10	5 × 11	65	8 × 11	50	10 × 12	57	10 × 15	70	10 × 15	70	10 × 15	50	10 × 19	56
	6 × 11	75	10 × 12	65	10 × 15	70	10 × 19	70	10 × 19	70	10 × 19	56	13 × 20	60
			10 × 15	65					13 × 20	70	13 × 20	70	13 × 25	75
15	8 × 11	93					10 × 19	75	10 × 19	90				
							13 × 20	90						
22	6 × 11	105	10 × 15	110	10 × 15	120	10 × 19	130	13 × 20	130	13 × 20	100	16 × 20	100
	8 × 11	130	10 × 19	110							13 × 25	110	16 × 25	110
											16 × 25	130	16 × 32	130
33	8 × 11	140	10 × 19	150	10 × 19	150	13 × 20	140	13 × 25	170	13 × 25	140	16 × 25	145
	10 × 12	170					13 × 25	160	16 × 25	170	16 × 20	145	16 × 32	160
											16 × 25	170	16 × 36	180
47	10 × 12	190	12 × 16	145	13 × 20	160	13 × 25	210	16 × 25	220	16 × 25	180	18 × 36	200
	10 × 15	230	12 × 25	180	13 × 25	190	16 × 25	210			16 × 32	220	18 × 40	230
			13 × 20	180							16 × 36	220		
68	10 × 15	280			13 × 25	230	16 × 25	210			16 × 32	220	18 × 32	265
100	10 × 19	400	13 × 25	250	16 × 25	330	16 × 32	310	16 × 36	320	18 × 36	360	22 × 40	370
			16 × 25	300					18 × 36	360	18 × 32	360		
150	13 × 20	500					18 × 40	410			18 × 40	410		
220	13 × 25	710	16 × 32	450	18 × 25	485	18 × 36	540						
			16 × 36	510	18 × 32	540	18 × 40	600						
					18 × 36	600								
330	13 × 25	720	18 × 36	540	16 × 40	710	18 × 40	600						
	16 × 25	860	18 × 40	600	16 × 45	750								
					18 × 32	685								
					18 × 36	725								
					18 × 40	800								
470	13 × 40	1100	22 × 40	900	18 × 40	750								
	16 × 25	1100			22 × 35	1000								
	16 × 32	1100												
680	16 × 36	1260												
1000	18 × 40	1350												
	22 × 35	1680												
2200	22 × 40	2300												

Note : * L, D × L : mm

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