

SD [For Low Impedance & Low E.S.R]

105°C Single-Ended Lead Aluminum Electrolytic Capacitors For High Frequency Used

Miniature Size Aluminum Electrolytic Capacitors

ELECTRICAL CHARACTERISTICS

Working Voltage: 6.3~100V

Operating Temperature: -40°~ +105°C

Rate Capacitance Range: 4.7~15000 μ F

Capacitance Tolerance: -20~+20%

DC Leakage Current (μ A):

$I=0.01CV(\mu A)$ or $3.0\mu A$, Whichever is greater.

(After 2 minutes application of DC working voltage at 25°C)

Dissipation Factor: at 120 Hz, 25°C

WV(V):	6.3	10	16	25	35	50	63	100
DF(%)	17	12	11	10	9	8	7	7

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

Load Life: 2000 hours at 105°C

(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: 500 hours, no Voltage applied, at 105°C

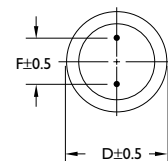
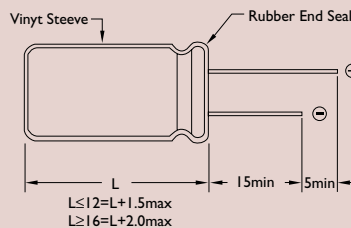
(a)Capacitance Change: Within 20% of Initial Value

(b)Dissipation Factor: Not exceed 200% of Initial Requirement

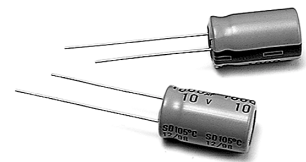
(c)Leakage Current: Not exceed 200% of Initial Requirement

DIAGRAM OF DIMENSIONS

D	F	d ϕ
5.0	2.0	0.5
6.0	2.5	
8.0	3.5	
10.0	5.0	0.6
12.0		



Dimensions : mm



DESCRIPTION

Used in switching regulator applications in computers.

Terminal equipment, tele-communications, etc.

Low E.S.R., high permissible ripple current at high frequency and higher operating temperature and high reliability even at higher operating temperature (-40°C to +105°C).

High temperature load life at 105°C for 2000 hours.

For detail specifications, please refer to Engineering Bulletin No.2037


CASE SIZE OF STANDARD PRODUCTS ($D\phi \leq 6\text{mm}$ with SafetyVent at Can Bottom)

D x L : mm

CAP.(μF)	RATED VOLTAGE WV							
	6.3(8)	10(13)	16(20)	25(32)	35(44)	50(63)	63(79)	100(125)
4.7				4x5	4x5 4x7	5x11	5x11	5x11
6.8			4x5	4x5 4x7	5x5 4x7	5x11	5x11	5x11
10		4x5	4x5 4x7	5x5 4x7	6x5 5x7	5x11	5x11	6x11
15	4x5	4x5 4x7	5x5 4x7	6x5 5x7	6x7 5x11	5x11	6x11	8x11.5
22	4x5 4x7	5x5 4x7	6x5 5x7	6x7 5x11	5x11	5x11	6x11	8x11.5
33	5x5 4x7	6x5 5x7	6x7 5x11	5x11	5x11	6x11	6x11	8x15 10x12
47	6x5 5x7	6x7 5x11	5x11	5x11	6x11	6x11	8x11.5	8x20 10x16
68	6x7 5x11	5x11	5x11	5x11	6x11	8x11.5	8x11.5	10x20
100	6x7 5x11	5x11	5x11	6x11	8x11.5	8x11.5	8x15 10x12	10x25 12x20
120	5x11	5x11	6x11	6x11	8x11.5	8x15 10x12	8x20 10x16	10x25 12x20
150	6x11	6x11	6x11	8x11.5	8x11.5	8x15 10x12	10x25 12x20	10x30 13x20
220	6x11	6x11	8x11.5	8x11.5	8x15 10x12	8x20 10x16	10x30 13x20	13x25
330	8x11.5	8x11.5	8x11.5	8x15 10x12	8x20 10x16	10x25 12x20	10x30 13x20	12x35 16x25
470	8x11.5	8x11.5	8x15 10x12	8x20 10x16	10x20	10x30 13x20	13x25	16x32
680	10x12	8x15 10x12	8x20 10x16	8x20 10x16	10x25 12x20	13x25	12x35 16x25	16x36
820	8x15 10x12	8x15 10x12	8x20 10x16	10x20	10x20 13x20	12x35 16x25	16x36	18x40
1000	8x15 10x12	8x20 10x16	10x20	10x30 12x20	13x25	12x35 16x25	18x32	
1200	8x20 10x16	10x20	10x25 12x20	10x30 13x20	13x25	16x36	18x40	
1500	10x20	10x25 12x20	10x30 13x20	13x25	12x35 16x25	18x36		
2200	10x25 12x20	10x30 12x20	13x25	12x35 16x25	16x32			
3300	10x30 13x20	13x25	12x35 16x25	16x32	18x36			
4700	13x25	12x35 16x25	16x36	18x36	18x40			
6800	12x35 16x25	13x40 16x32	18x36	18x40				
8200	13x40 16x25	16x36	18x36					
10000	16x36	18x36	18x40					
15000	18x36							

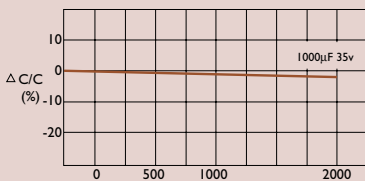
PERMISSIBLE RIPPLE CURRENT AT 100KHZ, 105°C (mA,ms) IMPEDANCE AT 100KHZ, 25°C (Ohm)

μF	WVE							
	6.3	10	16	25	35	50	63	100
4.7				50	60 100	115	100	115
6.8			50	60 100	80 110	160	115	130
10		50	60 100	80 110	95 120	165	130	150
15	50	60 100	80 110	95 120	115 140	175	150	190
22	60 100	80 110	95 120	115 140	130 160	190	190	260
33	80 110	95 120	115 140	130 160	190	200	260	310
47	95 120	115 140	130 160	190	200	265	310	440
68	115 140	130 160	190	200	265	310	410	490
100	130 160	190	200	265	310	410	440	520
120	190	200	265	310	410	440	490	700
150	200	265	310	410	440	490	520	900
220	265	310	410	440	490	520	700	1120
330	310	410	440	490	520	700	900	1350
470	410	440	490	520	700	900	1120	1570
680	440	490	520	700	900	1120	1350	1610
820	490	520	700	900	1120	1350	1570	1810
1000	520	700	900	1120	1350	1570	1610	2240
1200	700	900	1120	1350	1570	1610	1810	
1500	900	1120	1350	1570	1610	1810	2240	
2200	1120	1350	1570	1610	1710	2240		
3300	1350	1570	1610	1710	1810			
4700	1570	1610	1710	1810	2240			
6800	1610	1710	1810	2240				
8200	1710	1810	2240					
10000	1810	2240	2850					
15000	2240							

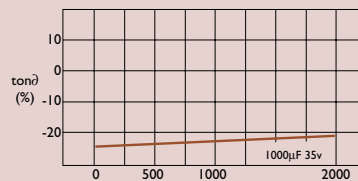
μF	WVE							
	6.3	10	16	25	35	50	63	100
4.7				8.00	5.00 4.00	3.00	3.00	4.00
6.8			8.00	5.00 4.00	2.60 2.00	2.00	2.00	1.50
10		8.00	5.00 4.00	2.60 2.00	2.00 1.70	1.50	1.50	1.20
15	8.00	5.00 4.00	2.60 2.00	2.00 1.70	1.50 1.45	1.40	1.40	1.00
22	5.00 4.00	2.60 2.00	2.00 1.70	1.50 1.45	1.40 1.35	1.30	1.00	0.66
33	2.60 2.00	2.00 1.70	1.50 1.45	1.40 1.35	1.30	1.00	0.60	0.50
47	2.00 1.70	1.50 1.45	1.40 1.35	1.30	1.00	0.60	0.50	0.32
68	1.50 1.45	1.40 1.35	1.30	1.00	0.60	0.50	0.33	0.30
100	1.40 1.35	1.30	1.00	0.60	0.50	0.33	0.30	0.16
120	1.30	1.00	0.60	0.50	0.33	0.30	0.27	0.24
150	1.00	0.60	0.50	0.33	0.30	0.27	0.24	0.18
220	0.60	0.50	0.33	0.30	0.27	0.24	0.18	0.09
330	0.50	0.33	0.30	0.27	0.24	0.18	0.12	0.075
470	0.33	0.30	0.27	0.24	0.18	0.12	0.095	0.060
680	0.30	0.27	0.24	0.18	0.12	0.095	0.085	0.052
820	0.27	0.24	0.18	0.12	0.095	0.085	0.070	0.045
1000	0.24	0.18	0.12	0.095	0.085	0.070	0.060	0.039
1200	0.18	0.12	0.095	0.085	0.070	0.060	0.052	
1500	0.12	0.095	0.085	0.070	0.060	0.052	0.045	
2200	0.095	0.085	0.070	0.060	0.052	0.045	0.039	
3300	0.085	0.070	0.060	0.052	0.045	0.039		
4700	0.070	0.060	0.052	0.045	0.039			
6800	0.060	0.052	0.048	0.039				
8200	0.052	0.048	0.039					
10000	0.048	0.039	0.035					
15000	0.039							

LOAD LIFE

Capacitance ChangeRatio



Dissipation Factor Change



Leakage Current Change

