

# Surface Mount Aluminum Electrolytic

## CA [ For General ]

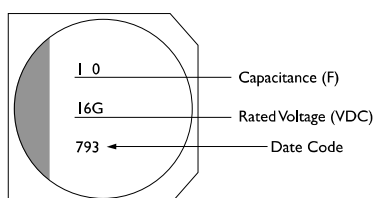


### FEATURE

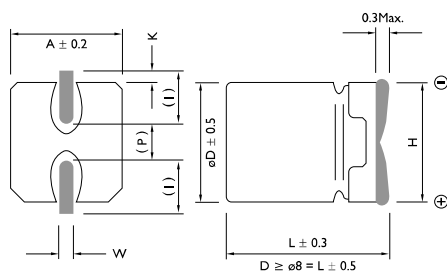
For General Purpose Series with 85°C 2000 Hours

Suitable for AV (TV, Video, Audio) Monitor / Computer,  
Home appliance, OA / HA / Communication

### MARKING



### DIMENSIONS



( ) Reference Size

### ELECTRICAL CHARACTERISTICS

Operation Temperature Range	-40 to +85°C																														
Rated Voltage Range	4 to 100VDC																														
Rated Capacitance Range	0.1 ~ 1000μF																														
Capacitance Tolerance	±20% at 120Hz, 20°C																														
Leakage Current (Max, 20°C)	$I \leq 0.01CV$ (μA) or 3μA whichever is greater; (After 2 Minutes Application of DC Rated Voltage at 20°C) $I$ = Leakage Current (μA), $C$ = Rated Capacitance (μF), $V$ = Rated Voltage (V)																														
Low Temperature Stability	Impedance Ratio at 120Hz (Max.) <table><tr><td>WV (V)</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Z (-25°C)</td><td>7</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td></tr><tr><td>Z (-40°C)</td><td>15</td><td>8</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td><td>2</td></tr></table>	WV (V)	4	6.3	10	16	25	35	50	63	100	Z (-25°C)	7	4	3	2	2	2	2	2	3	Z (-40°C)	15	8	6	4	4	3	3	3	2
WV (V)	4	6.3	10	16	25	35	50	63	100																						
Z (-25°C)	7	4	3	2	2	2	2	2	3																						
Z (-40°C)	15	8	6	4	4	3	3	3	2																						
Endurance	After the rated voltage has been applied at 85°C for 2000 hours, the capacitors shall meet the following requirements, (a) Capacitance Change: Within ±20% of the Initial Value (b) Dissipation Factor: Not Exceeding 200% of Specified Value (c) Leakage Current: Not Exceeding the Specified Value																														
Shelf Life	After having been placed at 85°C without voltage applied for 1000 hours, the capacitors shall meet the same requirements as Endurance.																														

Unit: mm

SIZE CODE	Dø	L	A	H	I	W	P	K
B	4.0	5.4	4.3	5.5 Max.	1.8	0.65 ± 0.1	1.0±0.2	0.35 $\begin{smallmatrix} + 0.15 \\ - 0.20 \end{smallmatrix}$
C	5.0	5.4	5.3	6.5 Max.	2.2	0.65 ± 0.1	1.5±0.2	0.35 $\begin{smallmatrix} + 0.15 \\ - 0.20 \end{smallmatrix}$
D	6.3	5.4	6.6	7.8 Max.	2.6	0.65 ± 0.1	1.8±0.2	0.35 $\begin{smallmatrix} + 0.15 \\ - 0.20 \end{smallmatrix}$
E	8.0	6.5	8.3	9.5 Max.	3.4	0.65 ± 0.1	2.2±0.2	0.35 $\begin{smallmatrix} + 0.15 \\ - 0.20 \end{smallmatrix}$
F	8.0	10.5	8.3	10.0 Max.	3.4	0.90 ± 0.2	3.1±0.2	0.70 ± 0.20
G	10.0	10.5	10.3	12.0 Max.	3.5	0.90 ± 0.2	4.6±0.2	0.70 ± 0.20
H	6.3	7.7	6.6	7.8 Max.	2.6	0.65 ± 0.1	1.8±0.2	0.35 $\begin{smallmatrix} + 0.15 \\ - 0.20 \end{smallmatrix}$

## CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D × L: mm

### CAP. RATED VOLTAGE WV (SURGE VOLTAGE WV)

(μF)	4 (5)			6.3 (8)			10 (13)			16 (20)		
	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	SIZE	RIPPLE CURRENT	DISSIPATION FACTOR
4.7										4 × 5.4	20	0.16
10							4 × 5.4	14	0.30	4 × 5.4	28	0.16
22	4 × 5.4	19	0.35	4 × 5.4	20	0.26	4 × 5.4	28	0.30	4 × 5.4	27	0.26
										5 × 5.4	39	0.16
33	4 × 5.4	26	0.35	5 × 5.4	22	0.26	4 × 5.4	29	0.30	5 × 5.4	45	0.26
							5 × 5.4	43	0.20	6.3 × 5.4	66	0.16
47	4 × 5.4	34	0.35	4 × 5.4	38	0.26	5 × 5.4	43	0.30	6.3 × 5.4	70	0.16
				5 × 5.4	46	0.26	6.3 × 5.4	46	0.30	6.3 × 7.7	75	0.18
100	5 × 5.4	61	0.35	6.3 × 5.4	71	0.26	5 × 5.4	60	0.30	6.3 × 5.4	70	0.20
							6.3 × 5.4	70	0.26	6.3 × 7.7	85	0.20
										8 × 6.5	86	0.20
220	6.3 × 5.4	82	0.35	6.3 × 5.4	190	0.26	6.3 × 7.7	105	0.26	6.3 × 7.7	105	0.20
				6.3 × 7.7	235	0.35	8 × 6.5	250	0.26	8 × 10.5	280	0.20
				8 × 6.5	250	0.35						
330				6.3 × 7.7	280	0.35	8 × 10.5	330	0.26	8 × 10.5	316	0.20
				8 × 6.5	300	0.35				10 × 10.5	380	0.20
				8 × 10.5	340	0.35						
470				8 × 10.5	380	0.35	8 × 10.5	330	0.26	8 × 10.5	350	0.20
							10 × 10.5	400	0.26	10 × 10.5	420	0.20
1000				8 × 10.5	580	0.35	10 × 10.5	580	0.26			
				10 × 10.5	700	0.35						
1500				10 × 10.5	1000	0.35						

Note: 1. Ripple Current: (mA/rms) 85°C, 120Hz

2. Dissipation Factor: 20°C, 120Hz

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D × L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)								
	25 (32) SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	35 (44) SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	50 (63) SIZE	RIPPLE CURRENT	DISSIPATION FACTOR
0.10							4 × 5.4	1	0.12
0.22							4 × 5.4	2	0.12
0.33							4 × 5.4	3	0.12
0.47							4 × 5.4	5	0.12
1.0							4 × 5.4	10	0.12
2.2				4 × 5.4	8	0.12	4 × 5.4	16	0.12
3.3				4 × 5.4	10	0.12	4 × 5.4	16	0.12
4.7	4 × 5.4	22	0.14	4 × 5.4	22	0.12	5 × 5.4	23	0.12
10	4 × 5.4	24	0.20	4 × 5.4	24	0.16	5 × 5.4	28	0.12
	5 × 5.4	28	0.14	5 × 5.4	30	0.12	6.3 × 5.4	35	0.12
22	5 × 5.4	45	0.14	5 × 5.4	49	0.23	6.3 × 5.4	70	0.12
	6.3 × 5.4	55	0.14	6.3 × 5.4	60	0.12	6.3 × 7.7	90	0.12
							8 × 6.5	110	0.12
33	5 × 5.4	53	0.14	6.3 × 5.4	100	0.14	6.3 × 7.7	90	0.12
	6.3 × 5.4	65	0.14	8 × 6.5	130	0.14	8 × 10.5	120	0.12
47	6.3 × 5.4	70	0.20	6.3 × 7.7	150	0.14	6.3 × 7.7	63	0.12
	8 × 6.5	96	0.16	8 × 6.5	165	0.14	8 × 10.5	100	0.12
							10 × 10.5	130	0.12
100	6.3 × 7.7	115	0.16	6.3 × 7.7	140	0.14	8 × 10.5	160	0.12
	8 × 6.5	140	0.16	8 × 6.5	170	0.14	10 × 10.5	190	0.12
	8 × 10.5	180	0.16	10 × 10.5	210	0.14			
220	8 × 6.5	210	0.16	8 × 10.5	250	0.14	10 × 10.5	310	0.12
	8 × 10.5	260	0.16	10 × 10.5	310	0.14			
	10 × 10.5	310	0.16						
330	8 × 10.5	350	0.16	10 × 10.5	400	0.14			
	10 × 10.5	430	0.16						
470	10 × 10.5	480	0.16						

Note: 1. Ripple Current: (mA/rms) 85°C, 120Hz  
2. Dissipation Factor: 20°C, 120Hz

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)					
	63 (79) SIZE	RIPPLE CURRENT	DISSIPATION FACTOR	100 (125) SIZE	RIPPLE CURRENT	DISSIPATION FACTOR
3.3				8 x 10,5	30	0.18
4.7	6,3 x 5,4	20	0.18	8 x 10,5	50	0.18
10	6,3 x 5,4	20	0.18	8 x 10,5	55	0.18
22	8 x 10,5	30	0.18	10 x 10,5	60	0.18
33	8 x 10,5	30	0.18	10 x 10,5	65	0.18
47	8 x 10,5	30	0.18			
100	10 x 10,5	60	0.18			

Note: 1. Ripple Current: (mA/rms) 85°C, 120Hz  
 2. Dissipation Factor: 20°C, 120Hz