

Chip Aluminum Electrolytic Capacitors

EAS1 - Standard 85°C Aluminum Electrolytic Capacitors

ELECSOUND®

Features:

- Designed for surface mounting on density circuit board.
- Emboss carrier tape packing system is available for automatic insertion.
- Available for reflow soldering
- Available for high density surface mounting

- High stability and reliability
- Load life of 2000 hours at 85 °C
- Rohs Compliant

Specifications:

- Operating Temperature Range(°C): -40~+85
- Rated Voltage Range(V): 4~100V
- Nominal Capacitance Ranger(μF): 0.1~6800
- Capacitance Tolerance(20 °C,120Hz) : 20%

- Leakage current (μA):
 - Φ4~Φ10: <0.01CV or 3uA whichever is greater(at 25 °C ,after 2 minutes)
 - Φ12.5~Φ16: <0.03CV or 4uA whichever is greater(at 25 °C ,after 1 minutes)

Resistance to Soldering Heat

Capacitance Change	Within ±10% of the initial value
Tanδ	Initial specified value or less
Leakage Current	Initial specified value or less

Dissipation Factor(25 °C,120Hz)

Rated Voltage (V)	4	6.3	10	16	25	35	50	63	100	
tan δ	Φ4~Φ10	0.42	0.38	0.34	0.3	0.26	0.22	0.18	0.14	0.10
	Φ12.5~Φ16	0.35	0.26	0.2	0.16	0.14	0.12	0.12	0.10	0.10

Stability at Low Temperature (Measurement frequency: 120Hz)

Rated voltage (V.DC)		4	6.3	10	16	25	35	50	63	100	
Impedance ratio ZT/Z20 (max)	Φ4~Φ10	Z(-25°C)/Z(20°C)	7	4	3	2	2	2	2	2	2
		Z(-40°C)/Z(20°C)	15	8	6	4	4	3	3	3	3
	Φ12.5~Φ16	Z(-25°C)/Z(20°C)	7	5	4	3	2	2	2	2	2
		Z(-40°C)/Z(20°C)	17	12	10	8	5	4	3	3	3

Load Life(+85 °C)

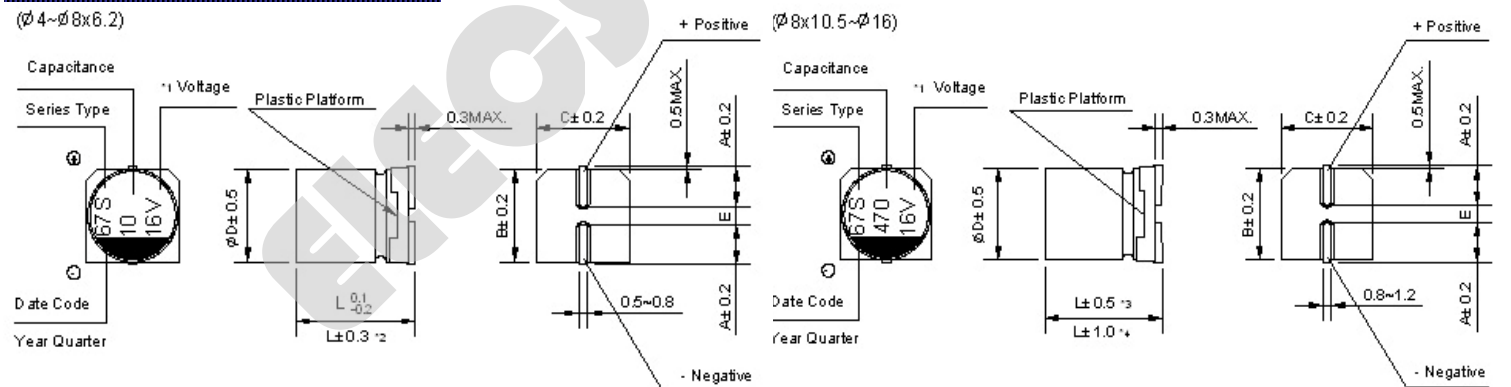
Time	2000 hours
Leakage Current	Not more than the specified value.
Capacitance Change	Within ±20% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.

Shelf Life(+85 °C)

Time	1000 hours
Leakage Current	Not more than the specified value.
Capacitance Change	Within ±15% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.

After test:Rated Voltage to be applied for 30 minutes, 24 to 48 hours before measurement.

Dimensions : (Unit:MM)



D×L	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×6.2	8×10.5	10×10.5	10×13.5	12.5×13.5	12.5×16	16×16.5
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2	3.2	4.7	4.7	5.5
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	12.8	12.8	16.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	10.3	12.8	12.8	16.3
E ± 0.2	1	1.3	2.2	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.7
L	5.4	5.4	5.4	7.7	6.2	10.5	10.5	13.5	13.5	16	16.5

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Frequency Correction Factor of Rated Ripple Current

Frequency		50Hz	120Hz	300Hz	1kHz	10kHz~
Capacitance (μF)						
Φ4~Φ10	0.1~68	0.7	1	1.17	1.36	1.5
	100~3300	0.85	1	1.08	1.2	1.3
Φ12.5~Φ16	~68	0.75	1	1.35	1.57	2
	100~680	0.8	1	1.23	1.34	1.5
	1000~6800	0.85	1	1.1	1.13	1.15

Standard size & Maximum permissible ripple current

WV		4		6.3		10		16		25	
Cap. (μF)		0G		0J		1A		1C		1E	
		Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	4R7	-	-	-	-	-	-	-	-	4×5.4	19
10	100	-	-	-	-	-	-	4×5.4	25	5×5.4	28
15	150	-	-	-	-	-	-	4×5.4	28	(4×5.4)	-20
22	220	-	-	4×5.4	31	5×5.4	35	5×5.4	39	5×5.4	34
33	330	4×5.4	26	5×5.4	39	5×5.4	43	6.3×5.4	57	6.3×5.4	63
				(4×5.4)	-31	(4×5.4)	-32	(5×5.4)	-40	(5×5.4)	-42
47	470	4×5.4	34	5×5.4	47	6.3×5.4	59	6.3×5.4	68	6.3×5.4	68
56	560	4×5.4	39	5×5.4	46	(5×5.4)	-43	(5×5.4)	-44	(5×5.4)	-44
68	680	5×5.4	45	5×5.4	46	6.3×5.4	57	6.3×5.4	74	6.3×5.4	82
				6.3×5.4	62	6.3×5.4	72	6.3×5.4	80	6.3×5.4	94
100	101	5×5.4	61	6.3×5.4	71	6.3×5.4	76	6.3×5.4	86	6.3×7.7	130
				(5×5.4)	-55	(5×5.4)	-55	(5×5.4)	-55	(8×6.2)	-200
150	151	6.3×5.4	74	6.3×5.4	78	6.3×5.4	88	6.3×7.7	135	8×10.5	200
										(6.3×7.7)	-130
220	221	6.3×5.4	82	6.3×5.4	95	6.3×7.7	150	8×10.5	215	8×10.5	250
						(8×6.2)	-250	(6.3×7.7)	-150	(8×6.2)	-135
330	331	6.3×7.7	150	6.3×7.7	150	8×10.5	280	8×10.5	280	10×10.5	340
				(8×6.2)	-300	(8×6.2)	-300	(8×10.5)	-330	(8×10.5)	-330
470	471	6.3×7.7	150	8×10.5	300	10×10.5	320	10×10.5	420	10×10.5	400
680	681	8×10.5	300	8×10.5	300	10×10.5	380	10×10.5	450	10×13.5	550
				10×10.5	430	10×10.5	450	12.5×13.5	710	12.5×13.5	820
1000	102	8×10.5	330	(8×10.5)	-330	10×10.5	450	(10×13.5)	-550	(10×13.5)	-550
				-	-	(10×10.5)	-490	(10×10.5)	-490		
1500	152	10×10.5	450	10×13.5	650	10×13.5	650	12.5×13.5	750	12.5×16	1000
				(10×10.5)	-450	(10×10.5)	-450	(10×10.5)	-450		
2200	222	10×13.5	620	12.5×13.5	890	12.5×13.5	960	16×16.5	1150	16×16.5	1250
				(10×10.5)	-480	(10×13.5)	-720	(12.5×16)	-1000	(12.5×16)	-1000
3300	332	10×13.5	700	12.5×16	1000	16×16.5	1300	16×16.5	1350	-	-
				(12.5×13.5)	-900	(12.5×16)	-1050	(12.5×16)	-1050		
4700	472	12.5×13.5	850	16×16.5	1400	16×16.5	1450	-	-	-	-
6800	682	16×16.5	1350	-	-	-	-	-	-	-	-
		(12.5×16)	-900	-	-	-	-	-	-	-	-

Ripple Current (mA rms) at 85°C 120Hz

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Standard size & Maximum permissible ripple current

WV Cap.(μF)		35		50		63		100	
		1V		1H		1J		2A	
		Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	0R1	-	-	4×5.4	1	4×5.4	1	-	-
0.22	R22	-	-	4×5.4	2.3	4×5.4	2.3	-	-
0.33	R33	-	-	4×5.4	3.5	4×5.4	3.5	-	-
0.47	R47	-	-	4×5.4	5	4×5.4	5	-	-
1	10	-	-	4×5.4	10	4×5.4	10	4×5.4	10
1.5	1R5	-	-	4×5.4	12	4×5.4	12	6.3×5.4	15
2.2	2R2	-	-	4×5.4	15	4×5.4	15	6.3×5.4	20
3.3	3R3	4×5.4	18	4×5.4	18	5×5.4	20	6.3×7.7	45
								(6.3×5.4)	-28
4.7	4R7	4×5.4	20	5×5.4	23	6.3×5.4	30	6.3×7.7	50
				(4×5.4)	-19	(5×5.4)	-23	(6.3×5.4)	-30
				-	-	-	-	(8×6.2)	-50
10	100	5×5.4	30	6.3×5.4	34	6.3×7.7	55	8×10.5	110
		(4×5.4)	-20	(5×5.4)	-27	(6.3×5.4)	-34	(6.3×7.7)	-50
		-	-	-	-	(8×6.2)	-50		
22	220	6.3×5.4	54	6.3×5.4	60	8×10.5	140	10×10.5	180
				(8×6.2)	-120	(6.3×7.7)	-70	(8×10.5)	-120
				-	-	(8×6.2)	-35	-	-
33	330	6.3×5.4	60	6.3×7.7	85	8×10.5	160	10×10.5	190
		(8×6.2)	-130	(8×6.2)	-65	(6.3×7.7)	-85		
47	470	6.3×5.4	70	10×10.5	130	10×10.5	230	12.5×13.5	330
		(8×6.2)	-165	(8×10.5)	-110	(8×10.5)	-170	(10×13.5)	-220
		-	-	(6.3×7.7)	-90	-	-	(10×10.5)	-200
56	560	6.3×7.7	80	6.3×7.7	110	10×10.5	250	-	-
68	680	6.3×7.7	110	8×10.5	170	10×10.5	260	12.5×13.5	380
								(10×13.5)	-250
100	101	8×10.5	175	10×10.5	240	12.5×13.5	380	12.5×13.5	440
		(6.3×7.7)	-120	(8×10.5)	-200	(10×13.5)	-290		
		-	-	-	-	(10×10.5)	-280		
150	151	8×10.5	220	10×10.5	240	10×13.5	310	-	-
220	221	10×10.5	310	10×13.5	400	12.5×13.5	580	-	-
		(8×10.5)	-270	(10×10.5)	-320	(10×13.5)	-330	16×16.5	700
330	331	10×10.5	350	12.5×13.5	600	16×16.5	820	-	-
		-	-	(10×13.5)	-420	(12.5×16)	-720	-	-
470	471	12.5×13.5	600	16×16.5	850	16×16.5	950	-	-
		(10×13.5)	-530	(12.5×16)	-740			-	-
		(10×10.5)	-400	-	-			-	-
680	681	12.5×13.5	750	16×16.5	950	-	-	-	-
		(10×13.5)	-560			-	-	-	-
1000	102	16×16.5	1100	-	-	-	-	-	-
		(12.5×16)	-800	-	-	-	-	-	-

Ripple Current (mA rms) at 85°C 120Hz