

# Chip Aluminum Electrolytic Capacitors

## EAS10 - 5000 Hours Load Life Aluminum Electrolytic Capacitors

**ELECSOUND®**

### Features:

Load life of 3000~5000 hours with temperature up to +105°C.  
 Emboss carrier tape packing system is available for automatic insertion.  
 Available for reflow soldering  
 Designed for surface mounting on density circuit board.

High stability and reliability  
 Available for high density surface mounting  
 Rohs Compliant

### Specifications:

Operating Temperature Range(°C): -55~+105  
 Rated Voltage Range(V): 6.3~100V  
 Nominal Capacitance Ranges(μF): 0.1~3300  
 Capacitance Tolerance(20 °C, 120Hz) : 20%

### 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

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

### Dissipation Factor(25 °C, 120Hz)

Rated Voltage (V)	6.3	10	16	25	35	50	63	100
tan δ	Φ4~Φ10	0.28	0.24	0.2	0.16	0.13	0.12	0.12
	Φ12.5~Φ16	0.38	0.34	0.3	0.26	0.22	0.18	0.18

### Stability at Low Temperature (Measurement frequency: 120Hz)

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

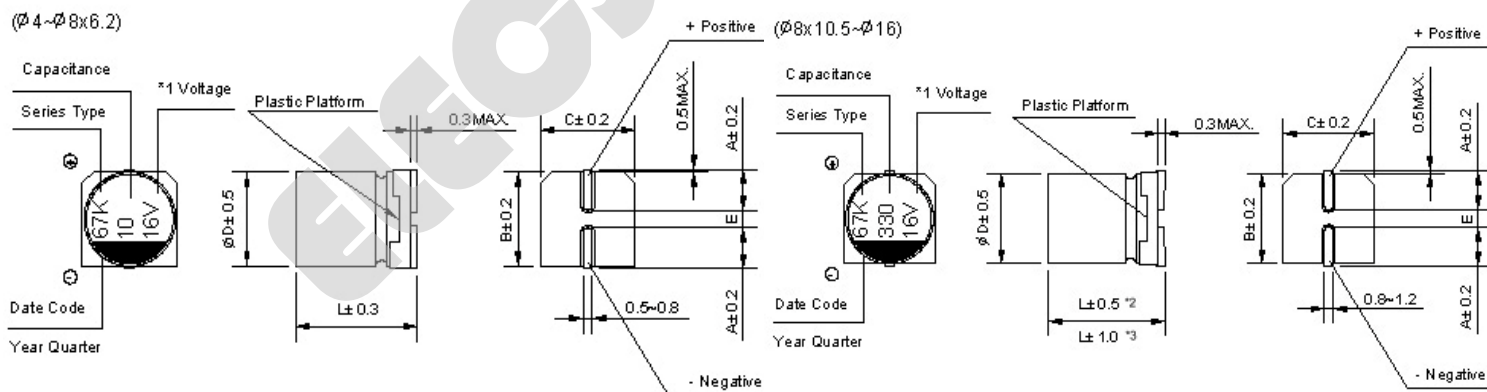
### Load Life(+105 °C)

### Shelf Life(+105 °C)

Time	5000 hours (3000 hours' for Φ4~Φ6.3 and Φ8×6.2)	Time	1000 hours
Leakage Current	Not more than the specified value.	Leakage Current	Not more than the specified value.
Capacitance Change	Within ±30% of the initial value	Capacitance Change	Within ±15% of the initial value.
Dissipation Factor	Not more than 300% of the specified 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	1~68	0.35	0.5	0.64	0.83	1
	100~2200	0.4	0.55	0.7	0.85	1
Φ12.5~Φ16	~688	0.45	0.65	0.8	0.9	1
	1000~4700	0.65	0.85	0.95	1	1

Standard size & Maximum permissible ripple current

WV		6.3		10		16		25	
		0J		1A		1C		1E	
Cap.(μF)		Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
10	100	-	-	-	-	4×5.8	18	5×5.8	27
22	220	4×5.8	22	5×5.8	30	5×5.8	30	6.3×5.8	44
33	330	5×5.8	35	5×5.8	36	6.3×5.8	48	6.3×5.8	50
47	470	5×5.8	38	6.3×5.8	50	6.3×5.8	50	6.3×7.7	63
								(8×6.2)	-63
100	101	6.3×5.8	69	6.3×7.7	81	6.3×7.7	81	8×10.5	116
				(8×6.2)	-81	(8×6.2)	-81		
150	151	6.3×7.7	85	8×10.5	125	8×10.5	125	10×10.5	320
		(8×6.2)	-85						
220	221	6.3×7.7	120	8×10.5	141	10×10.5	216	10×10.5	320
		(8×6.2)	-120						
330	331	8×10.5	290	10×10.5	290	10×10.5	290	10×10.5	320
470	471	10×10.5	320	10×10.5	320	10×10.5	320	12.5×13.5	400
								(10×13.5)	-350
680	681	10×10.5	320	10×10.5	320	10×13.5	420	12.5×13.5	415
1000	102	10×10.5	410	10×13.5	390	12.5×13.5	550	12.5×13.5	460
1500	152	10×13.5	450	12.5×13.5	480	12.5×13.5	650	12.5×16	700
2200	222	12.5×13.5	680	12.5×16	750	16×16.5	800	-	-
				(12.5×13.5)	-510			-	-
3300	332	12.5×16	850	16×16.5	800	-	-	-	-
		(12.5×13.5)	-800			-	-	-	-

Ripple Current (mA rms) at 105°C 120Hz

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Standard size & Maximum permissible ripple current

WV		35		50		63		100	
		1V		1H		1J		2A	
Cap.( $\mu$ F)		Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	0R1	-	-	4×5.8	1	-	-	-	-
0.22	R22	-	-	4×5.8	2.6	-	-	-	-
0.33	R33	-	-	4×5.8	3.2	-	-	-	-
0.47	R47	-	-	4×5.8	5	-	-	-	-
1	10	-	-	4×5.8	8	-	-	-	-
2.2	2R2	-	-	4×5.8	12	-	-	-	-
3.3	3R3	-	-	4×5.8	17	-	-	6.3×7.7	30
		-	-			-	-	(8×6.2)	-30
4.7	4R7	4×5.8	16	5×5.8	22	-	-	8×10.5	50
10	100	5×5.8	27	6.3×5.8	32	6.3×7.7	45	8×10.5	55
						(8×6.2)	-45		
22	220	6.3×5.8	44	6.3×7.7	58	8×10.5	65	10×10.5	70
				(8×6.2)	-58				
33	330	6.3×7.7	57	8×10.5	140	10×10.5	80	10×10.5	80
		(8×6.2)	-57						
47	470	8×10.5	92	10×10.5	310	10×10.5	90	12.5×13.5	250
								(10×13.5)	-150
68	680	-	-	-	-	-	-	12.5×13.5	300
100	101	10×10.5	151	10×10.5	310	10×13.5	150	16×16.5	600
								(12.5×16)	-420
								(12.5×13.5)	-380
150	151	10×10.5	290	10×10.5	310	-	-	-	-
220	221	10×10.5	375	12.5×13.5	340	12.5×13.5	470	-	-
				(10×13.5)	-320			-	-
330	331	12.5×13.5	380	12.5×16	600	16×16.5	650	-	-
		(10×13.5)	-375	(12.5×13.5)	-500	(12.5×16)	-550	-	-
470	471	12.5×13.5	520	16×16.5	700	-	-	-	-
680	681	12.5×13.5	550	-	-	-	-	-	-
1000	102	16×16.5	750	-	-	-	-	-	-
		(12.5×16)	-600	-	-	-	-	-	-

Ripple Current (mA rms) at 105°C 120Hz