

Chip Aluminum Electrolytic Capacitors

EAS1 - Standard SMD Aluminum Electrolytic Capacitors



Elecsound is a leading manufacturer of aluminum electrolytic capacitors. Mainly include radial type electrolytic capacitors and chip aluminum electrolytic capacitors.

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 Ranges(μF): 0.1~6800
 Capacitance Tolerance(20 °C,120Hz) : 20%

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)

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	0.10	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	∠(-25°C)/Z(20°C)	7	4	3	2	2	2	2	2	2
		∠(-40°C)/Z(20°C)	15	8	6	4	4	3	3	3	3
	Φ12.5~Φ16	∠(-25°C)/Z(20°C)	7	5	4	3	2	2	2	2	2
		∠(-40°C)/Z(20°C)	17	12	10	8	5	4	3	3	3

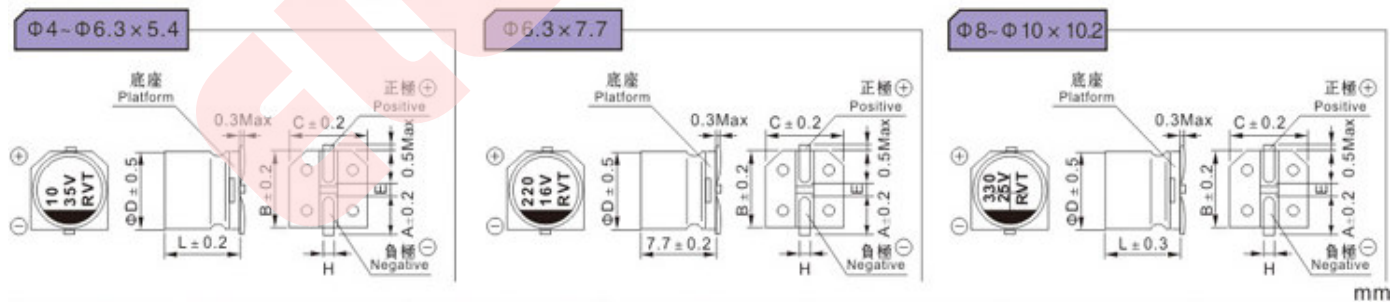
Load Life(+85 °C)

Shelf Life(+85 °C)

Time	2000 hours	Time	1000 hours
Leakage Current	Not more than the specified value.	Leakage Current	Not more than the specified value.
Capacitance Change	Within ±20% of the initial value.	Capacitance Change	Within ±15% of the initial value.
Dissipation Factor	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

Elecsound Technology Company Limited

TEL: 0086-755-82908842 FAX: 0086-755-83045964

Website: www.elecsound.com

Email: sales@elecsound.com

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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 0G		6.3 0J		10 1A		16 1C		25 1E	
Cap.(μF)		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 (4×5.4)	28 -20
15	150	-	-	-	-	-	-	4×5.4	28	5×5.4	34
22	220	-	-	4×5.4	31	5×5.4 (4×5.4)	35 -28	5×5.4 (4×5.4)	39 -28	6.3×5.4 (5×5.4)	52 -35
33	330	4×5.4	26	5×5.4 (4×5.4)	39 -31	5×5.4 (4×5.4)	43 -32	6.3×5.4 (5×5.4)	57 -40	6.3×5.4 (5×5.4)	63 -42
47	470	4×5.4	34	5×5.4 (4×5.4)	47 -36	6.3×5.4 (5×5.4)	59 -43	6.3×5.4 (5×5.4)	68 -44	6.3×5.4	68
56	560	4×5.4	39	5×5.4	46	6.3×5.4	57	6.3×5.4	74	6.3×5.4	82
68	680	5×5.4	45	6.3×5.4 (5×5.4)	62 -52	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 (5×5.4)	71 -55	6.3×5.4	76	6.3×5.4 (8×6.2)	86 -200	6.3×7.7 (8×6.2)	130 -91
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 (6.3×7.7)	200 -130
220	221	6.3×5.4	82	6.3×5.4	95	6.3×7.7 (8×6.2)	150 -250	8×10.5 (6.3×7.7)	215 -150	8×10.5 (8×6.2)	250
330	331	6.3×7.7	150	6.3×7.7 (8×6.2)	150 -300	8×10.5	280	8×10.5	280	10×10.5 (8×10.5)	340 -310
470	471	6.3×7.7	150	8×10.5 (6.3×7.7)	300 -150	10×10.5 (8×10.5)	320 -300	10×10.5 (8×10.5)	420 -330	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
1000	102	8×10.5	330	10×10.5 (8×10.5)	430 -330	10×10.5	450	12.5×13.5 (10×13.5)	710 -550	12.5×13.5 (10×10.5)	820
1500	152	10×10.5	450	10×13.5 (10×10.5)	650 -450	10×13.5	650	12.5×13.5	750	12.5×16	1000
2200	222	10×13.5 (10×10.5)	620 -480	12.5×13.5 (10×13.5)	890 -720	12.5×13.5	960	16×16.5 (12.5×16)	1150 -1000	16×16.5	1250
3300	332	10×13.5	700	12.5×16 (12.5×13.5)	1000 -900	16×16.5 (12.5×16)	1300 -1050	16×16.5	1350	-	-
4700	472	12.5×13.5	850	16×16.5	1400	16×16.5	1450	-	-	-	-
6800	682	16×16.5 (12.5×16)	1350 -900	-	-	-	-	-	-	-	-

Ripple Current (mA rms) at 85°C 120Hz

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Standard size & Maximum permissible ripple current

WV		35		50		63		100	
		IV		IH		IJ		2A	
Cap.(μ F)		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
								(8×6.2)	-50
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		
		6.3×5.4	70	10×10.5	130	10×10.5	230		
47	470	(8×6.2)	-165	(8×10.5)	-110	(8×10.5)	-170	12.5×13.5	330
		-	-	(10×13.5)	-220	(10×10.5)	-		
		-	-	(6.3×7.7)	-90	-	-	-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	-	-
		12.5×13.5	600	16×16.5	850	-	-	-	-
470	471	(10×13.5)	-530	(12.5×16)	-740	16×16.5	950	-	-
		(10×10.5)	-400	-	-	-	-	-	-
		12.5×13.5	750	16×16.5	950	-	-	-	-
680	681	(10×13.5)	-560	-	-	-	-	-	-
		16×16.5	1100	-	-	-	-	-	-
1000	102	(12.5×16)	-800	-	-	-	-	-	

Ripple Current (mA rms) at 85°C 120Hz