

SMD Aluminum Electrolytic Capacitor – JCL

FEATURES

- Wide temperature range -55~+105℃.
- Load life of 3000~5000 hours.
- Comply with the RoHS directive.



SPECIFICATIONS

Operating Temperature	-55℃ ~ +105℃
Voltage Range	6.3V~100V.DC
Capacitance Range	0.1 ~ 1500 μ F
Capacitance Tolerance	±20% at 120Hz, 20℃
Leakage Current	Leakage current (Φ 4~ Φ 10) $\leq$ 0.01CV or 3 μ A, whichever is greater (After 2 minutes application of rated voltage) Leakage current (Φ 12.5~ Φ 16) $\leq$ 0.03CV or 4 μ A, whichever is greater (After 1 minutes application of rated voltage)

Dissipation Factor (Tan δ)

Measurement Frequency: 120Hz, Temperature: 20℃

Rated Voltage (V)		6.3	10	16	25	35	50~100
Tan δ	$\Phi 4 \sim \Phi 10$	0.28	0.24	0.20	0.16	0.13	0.12
(Max.)	$\Phi 12.5 \sim \Phi 16$	0.38	0.34	0.30	0.26	0.22	0.18

Stability At Low Temp.

Measurement Frequency: 120Hz

Rated Voltage (V)		6.3	10	16	25	35	50	63	100
Impedance Ratio ZT/Z20 (Max.)	Φ 4~ Φ 10	Z(-25℃)/ Z(20℃)	3	3	2	2	2	2	2
		Z(-55℃)/ Z(20℃)	8	5	4	3	3	3	3
	Φ 12.5~ Φ 16	Z(-25℃)/ Z(20℃)	5	4	3	2	2	2	2
		Z(-55℃)/ Z(20℃)	12	10	8	5	4	3	3

Load Life

After 5000 hrs. (3000 hrs. for Φ 4~ Φ 6.3*5.4& Φ 8*6.2) application of the rated voltage at 105℃, They meet the characteristics listed below.

Capacitance Change	Within $\pm$ 30% of initial value
Dissipation Factor	300% or less of initial specified value
Leakage Current	Initial specified value or less

Shelf Life

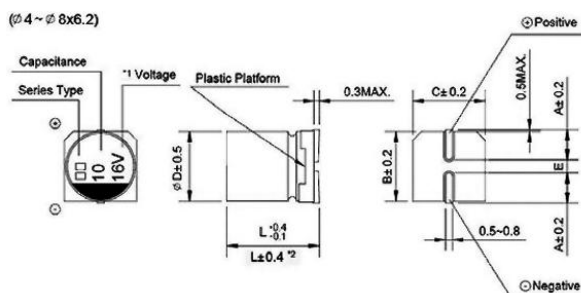
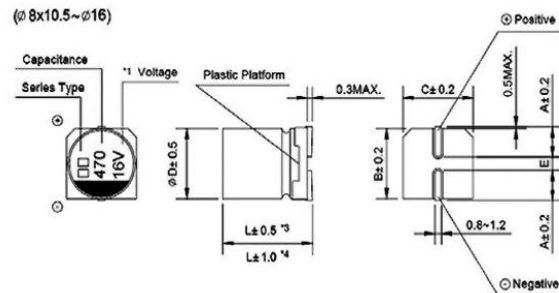
After leaving capacitors under no load at 105℃ for 1000 hours, They meet the specified value for load life characteristics listed above.

Resistance to Soldering Heat

After reflow soldering and restored at room temperature, they meet the characteristics listed at right.

Capacitance Change	Within $\pm$ 10% of initial value
Dissipation Factor	Initial specified value or less
Leakage Current	Initial specified value or less

DRAWING (Unit: mm)



*1 Voltage mark for 6.3V is [6V]

*2 Applicable to Φ 6.3*7.7

*3 Applicable to Φ 8*10.5~ Φ 10

*4 Applicable to Φ 12.5~ Φ 16.

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DIMENSIONS(Unit: mm)

ØD×L	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×6.2	8×10.5	10×10.5	10×13.5	12.5×13.5/16	16×16.5
A	2.0	2.2	2.6	2.6	3.4	3.0	3.3	3.3	4.9	5.8
B	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	17.0
C	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	17.0
E±0.2	1.0	1.4	1.9	1.9	2.3	3.1	4.7	4.7	4.7	6.4
L	5.8	5.8	5.8	7.7	6.2	10.5	10.5	13.5	13.5/16	16.5

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Cap. (μF)		6.3		10		16		25	
		0J		1A		1C		1E	
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 (8×6.2)	63 (63_
100	101	6.3×5.8	69	6.3×7.7 (8×6.2)	81 (81)	6.3×7.7 (8×6.2)	81 (81)	8×10.5	116
150	151	6.3×7.7 (8×6.2)	85 (85)	8×10.5	125	8×10.5	125	10×10.5	320
220	221	6.3×7.7 (8×6.2)	120 (120)	8×10.5	141	10×10.5	216	10×10.5	320
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 (10×13.5)	400 (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 (12.5×13.5)	750 (510)	16×16.5	800		
3300	332	12.5×16 (12.5×13.5)	850 (800)	16×16.5	800			Case Size	Ripple Current

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DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV		35		50		63		100	
Cap. (μF)		1V		1H		1J		2A	
0.1	0R1			4×5.8	1.0				
0.22	R22			4×5.8	2.6				
0.33	R33			4×5.8	3.2				
0.47	R47			4×5.8	5				
1	010			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)
100	101	10×10.5	151	10×10.5	310	10×13.5	150	12.5×13.5	300
150	151	10×10.5	290	10×10.5	310			16×16.5	600
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)						
								Case Size	Ripple Current

Case Size ØD×L(mm),ripple current(mA rms) at 105℃ 120Hz

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency			50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	Ø 4~ Ø 10		0.70	1.00	1.17	1.36	1.50
	Ø 12.5~ Ø 16	~68μF	0.75	1.00	1.35	1.57	2.00
		100~470μF	0.80	1.00	1.23	1.34	1.50
		680~3300μF	0.85	1.00	1.10	1.13	1.15

Please visit our website to get more update data, those data & specification are subject to change without notice.