

# SMD Aluminum Electrolytic Capacitor – JCL

## FEATURES

- Endurance : 105°C 3000~5000H.
- Designed for reflow soldering.
- Designed for surface mounting on high-density PCB.

## SPECIFICATIONS

Operating Temperature -55°C ~ +105°C  
 Voltage Range 6.3V~100V.DC  
 Surge Voltage 7.3V~115V.DC  
 Capacitance Tolerance ±20% at 120Hz, 20°C  
 Leakage Current (LC) The greater value of either 0.01CV or 3μA (μA/after 2minutes (max))



Fig 1



Fig 2



Fig 3

Note: Fig 1 & 2: Diameter 4 ~10mm

Fig 3 : Diameter: ≥12.5mm

Dissipation Factor (Tan δ)

Measurement Frequency: 120Hz, Temperature: 20°C

Rated Voltage (V)		6.3	10	16	25	35	50	63	80	100
Tan δ (Max.)	Φ4~Φ10	0.32	0.26	0.20	0.18	0.16	0.14	0.14	0.16	0.14
	Φ12.5~Φ16	0.42	0.38	0.32	0.28	0.22	0.18	0.16	0.16	0.16

Impedance Ratio at Low Temperature

Measurement Frequency: 120Hz

Rated Voltage (V)		6.3	10	16	25	35	50	63	80	100
Based on the value at 120Hz, +20°C	Z(-25°C)/Z(20°C)	7	4	3	2	2	2	2	3	3
	Z(-55°C)/Z(20°C)	15	8	6	4	4	4	3	3	3

Endurance

After applying rated working voltage for 3000/5000 hours at +105°C ±2°C, and then being stabilized at +20°C, capacitors shall meet the following limits.

Test Time	ΦD ≤ 6.3mm: 3000H, ΦD ≥ 8mm: 5000H
Capacitance Change	Within ±30% of initial value
Dissipation Factor	Less than 300% of the specified value
Leakage Current	Less than the specified value

Shelf Life

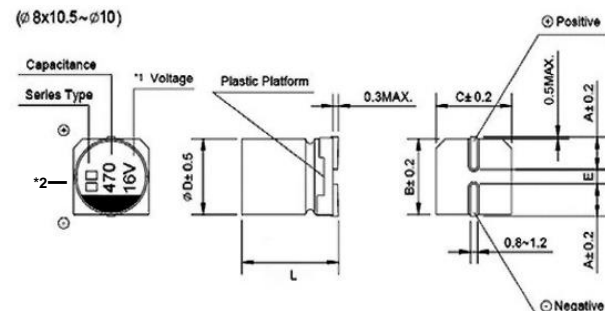
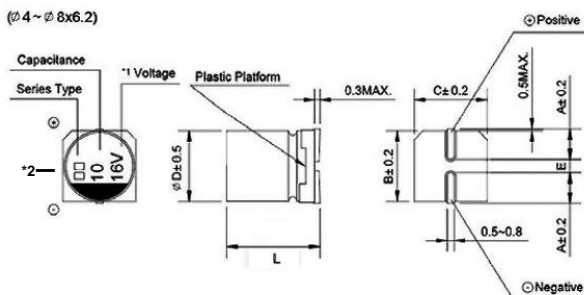
After storage for 1000H at +105°C ±2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in endurance.

Resistance to Soldering Heat

After reflow soldering and then being stabilized at +20°C, capacitors shall meet the following limits.

Capacitance Change	Within ±10% of initial value
Dissipation Factor	Within the initial limit
Leakage Current	Within the initial limit

## DRAWING (Unit: mm)



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

\*2 Surface Marking Types: jBL, jL, KL

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### DIMENSIONS(Unit: mm)

ØD×L	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×10.5	10×10.5	10×13.5	12.5×13.5	12.5×16	16×16.5
<b>A</b>	2.0	2.2	2.6	2.6	3.0	3.3	3.3	4.7	4.7	5.5
<b>B</b>	4.3	5.3	6.6	6.6	8.3	10.3	10.3	13.0	13.0	17.0
<b>C</b>	4.3	5.3	6.6	6.6	8.3	10.3	10.3	13.0	13.0	17.0
<b>E±0.2</b>	1.0	1.3	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.4
<b>L</b>	5.8±0.6	5.8±0.6	5.8±0.6	7.7±0.6	10.5±0.6	10.5±0.6	13.5±1.0	13.5±1.0	16.0±1.0	16.5±1.0

### DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV		6.3		10		16		25		35	
		0J		1A		1C		1E		1V	
Cap.(µF)											
4.7	4R7	--	--	--	--	--	--	--	--	4×5.8	16
10	100	--	--	--	--	4×5.8	18	5×5.8	27	5×5.8	27
22	220	4×5.8	22	5×5.8	30	5×5.8	30	6.3×5.8	44	6.3×5.8	44
33	330	5×5.8	35	5×5.8	35	6.3×5.8	48	6.3×5.8	50	6.3×7.7	57
47	470	5×5.8	38	6.3×5.8	50	6.3×5.8	50	6.3×7.7	63	8×10.5	92
100	101	6.3×5.8	69	6.3×7.7	80	6.3×7.7	81	8×10.5	116	10×10.5	151
150	151	--	--	8×10.5	125	--	--	--	--	--	--
220	221	6.3×7.7	101	8×10.5	140	8×10.5	141	10×10.5	290	10×10.5	320
330	331	8×10.5	141	10×10.5	290	10×10.5	290	10×10.5	320	12×13.5	320
470	471	10×10.5	320	10×10.5	320	10×10.5	320	12×13.5	400	12×13.5	350
1000	102	10×10.5	410	10×13.5	390	12×13.5	550	--	--	--	--
1500	152	12×13.5	500	12×13.5	500	12×13.5	600	--	--	--	--
2200	222	12×13.5	600	12×13.5	600	--	--	--	--	Case Size	Ripple Current

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### DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Cap.( $\mu$ F)		50		63		80		100	
		1H		1J		1K		2A	
1.0	010	4×5.8	8	--	--	--	--	--	--
2.2	2R2	4×5.8	12	--	--	--	--	--	--
3.3	3R3	4×5.8	17	--	--	--	--	--	--
4.7	4R7	5×5.8	22	--	--	--	--	6.3×7.7	40
10	100	6.3×5.8	32	6.3×7.7	45	--	--	8×10.5	55
22	220	6.3×7.7	58	8×10.5	65	--	--	10×10.5	70
33	330	8×10.5	130	10×10.5	80	--	--	10×10.5	80
47	470	8×10.5	141	10×10.5	110	--	--	12.5×13.5	150
100	101	10×10.5	160	12.5×13.5	150	12.5×13.5	180	12.5×13.5	220
150	151	--	--	--	--	12.5×13.5	220	--	--
220	221	12.5×13.5	280	12.5×13.5	240	--	--	Case Size	Ripple Current

Case Size  $\varnothing$ D×L(mm), ripple current(mA rms) at 105°C 120Hz

### FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency: F(Hz)		50Hz	120Hz	1kHz	10kHz $\cong$
Capacitance: C( $\mu$ F)	C $\cong$ 1000 $\mu$ F	0.70	1.00	1.20	1.30
	C>1000 $\mu$ F	0.85	1.00	1.10	1.15

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