

SMD Aluminum Electrolytic Capacitor – JCE

FEATURES

- Wide temperature range -55~+105°C
- Load life of 2000~3000 hours
- Comply with the RoHS directive



SPECIFICATIONS

Operating Temperature	-55°C ~ +105°C
Voltage Range	6.3V ~ 50V.DC
Capacitance Range	0.1 ~ 1500 μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	Leakage current (Φ4~Φ10) ≤0.01CV or 3μA, whichever is greater (After 2 minutes application of rated voltage) Leakage current (Φ12.5~Φ16) ≤0.03CV or 4μA, whichever is greater (After 1 minutes application of rated voltage)

Dissipation Factor (Tan δ)

Measurement Frequency: 120Hz, Temperature: 20°C

Rated Voltage (V)		6.3	10	16	25	35	50
Tan δ (Max.)	Φ4~Φ10	0.28	0.24	0.20	0.16	0.13	0.12
	Φ12.5~Φ16	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
Impedance Ratio ZT/Z20 (Max.)	Φ4~Φ10	Z(-25°C)/ Z(20°C)	3	3	2	2	2
		Z(-55°C)/ Z(20°C)	8	5	4	3	3
	Φ12.5~Φ16	Z(-25°C)/ Z(20°C)	5	4	3	2	2
		Z(-55°C)/ Z(20°C)	12	10	8	5	4

Load Life

After 3000 hours'(2000 hours for Ø4~ Ø6.3 and Ø 8*6.2) application of rated voltage at 105°C , They meet the characteristics listed at right.

Capacitance Change	Within ± 25% of initial value
Leakage Current	Initial specified value or less
Dissipation Factor	200% or less of initial specified value

Shelf Life

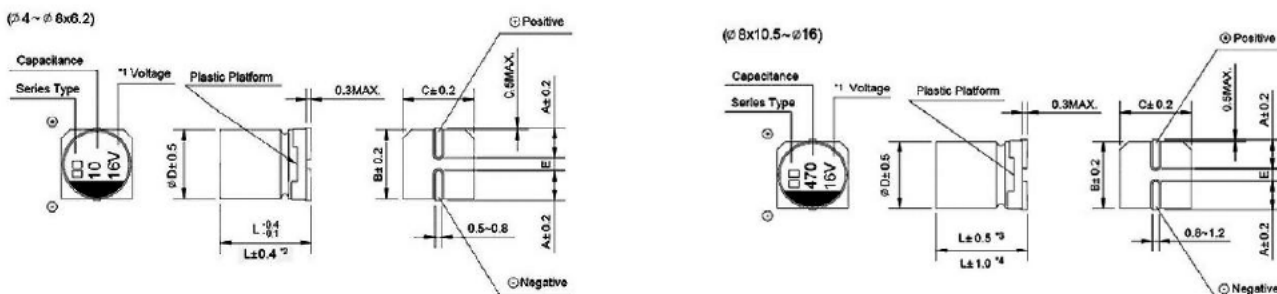
After leaving capacitors under no load at 105°C for 1000 hours, They meet the specified value for life characteristics listed above.

Resistance to Soldering Heat

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

Capacitance Change	Within ± 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 Φ6.3*7.7

*3 Applicable to Φ8*10.5~Φ10

*4 Applicable to Φ12.5~Φ16

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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	12.5×16	16×16.5
A	2.0	2.2	2.6	2.6	3.4	3.0	3.3	3.3	4.9	4.9	5.8
B	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	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	4.7	6.4
L	5.8	5.8	5.8	7.7	6.2	10.5	10.5	13.5	13.5	16.0	16.5

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV/V		6.3		10		16		25		35		50	
Cap/µF		0J		1A		1C		1E		1V		1H	
0.1	0R1											4×5.8	1
0.22	R22											4×5.8	2
0.33	R33											4×5.8	3
0.47	R47											4×5.8	5
1	010											4×5.8	10
2.2	2R2											4×5.8	16
3.3	3R3											4×5.8	16
4.7	4R7							4×5.8	13	4×5.8	14	5×5.8	23
10	100	--	--	--	--	4×5.8	18	5×5.8	20	5×5.8	21	6.3×5.8	35
22	220	4×5.8	22	5×5.8	25	5×5.8	27	6.3×5.8	36	6.3×5.8	38	6.3×7.7 (8×6.2)	70 (70)
33	330	5×5.8	27	5×5.8	30	6.3×5.8	40	6.3×5.8	60	6.3×7.7 (8×6.2)	84 (84)	8×10.5	90
47	470	5×5.8	33	6.3×5.8	41	6.3×5.8	48	6.3×7.7 (8×6.2)	90 (91)	8×10.5	98	8×10.5	90
100	101	6.3×5.8	50	6.3×5.8 (8×6.2)	53 (110)	6.3×5.8	60	8×10.5	130	8×10.5	130	10×10.5	100
150	151	6.3×5.8	55	6.3×7.7	105	6.3×7.7	95	8×10.5	140	10×10.5	315	10×10.5	100
220	221	6.3×7.7	100	8×10.5	210	8×10.5	210	10×10.5	190	10×10.5	315	10×13.5 (10×10.5)	250 (100)
330	331	8×10.5	210	8×10.5	210	8×10.5	210	10×10.5	315	10×10.5	315	12.5×13.5	400
470	471	8×10.5	210	10×10.5	315	10×10.5	315	10×10.5	315	12.5×13.5 (10×13.5)	500 (360)	16×16.5 (12.5×16)	650 (500)
680	681	8×10.5	210	10×10.5	315	10×10.5	315	10×13.5	380	12.5×13.5	500		
100 0	102	10×10.5	315	10×13.5 (10×10.5)	360 (315)	12.5×13.5 (10×13.5) (10×10.5)	450 (350) (315)	12.5×13.5	550	16×16.5 (12.5×16)	700 (550)		
150 0	152	10×13.5 (10×10.5)	450 (315)	12.5×13.5	500	12.5×13.5	500	12.5×16	800				
220 0	222	12.5×13.5	620	12.5×16 (12.5×13.5)	650 (600)	16×16.5	900	16×16.5	100 0				
330 0	332	12.5×16	750	16×16.5	950							Case Size	Ripple Current

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency		50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	Φ4~Φ10	0.1~100µF	0.70	1.00	1.17	1.50
		150~1500µF	0.85	1.00	1.08	1.30
	Φ12.5~Φ16	~470µF	0.75	1.00	1.35	2.00
		680~3300µF	0.85	1.00	1.23	1.34