

SMD Aluminum Electrolytic Capacitor – JCZ

FEATURES

- Extra low impedance with temperature range -55~+105°C.
- Impedance 40~60% less than JCD series
- Comply with the RoHS directive.



SPECIFICATIONS

Operating Temperature	-55°C ~ +105°C
Voltage Range	6.3V ~ 50V.DC
Capacitance Range	4.7 ~ 4700 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	0.22	0.19	0.16	0.14	0.12	0.12
	Φ12.5~Φ16	0.26	0.22	0.18	0.16	0.14	0.12

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	2	2	2	2
		Z(-55°C)/ Z(20°C)	5	4	4	3	3
	Φ12.5~Φ16	Z(-25°C)/ Z(20°C)	3	3	2	2	2
		Z(-55°C)/ Z(20°C)	10	8	6	4	3

Load Life

After 3000 hours. (1000 hrs. for Ø4~ Ø6.3*5.4, 2000 hrs. for Ø 6.3*7.7& Ø 8) application of rated voltage at 105°C, they meet the characteristics listed at right.

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

Shelf Life

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

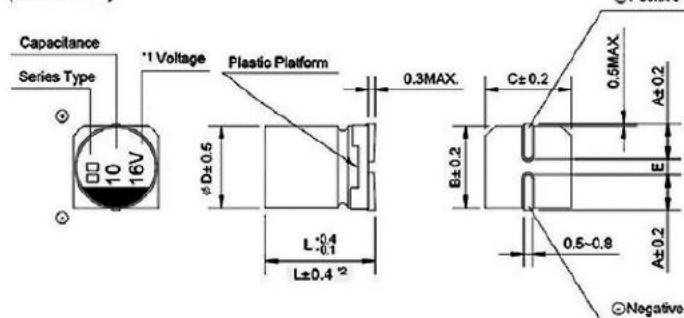
Resistance to Soldering Heat

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

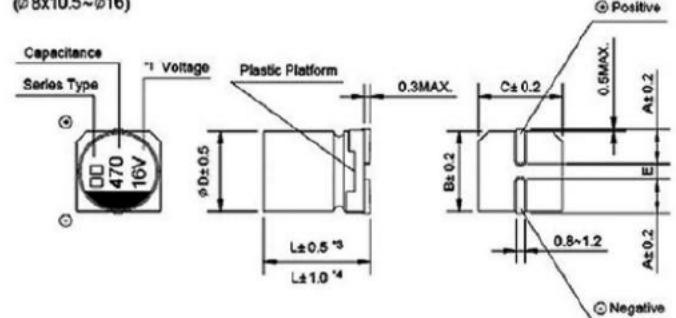
Capacitance Change	Within ± 10% of initial value
Dissipation Factor	Initial specified value or less
Leakage Current	Initial specified value or less

DRAWING (Unit: mm)

(Ø4~Ø8x6.2)



(Ø8x10.5~Ø16)



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

*2 Applicable to Ø6.3*7.7

*3 Applicable to Ø8*10.5~Ø10

*4 Applicable to Ø12.5~Ø16

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DIMENSIONS(Unit: mm)

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

WV		6.3			10			16		
Cap. (μF)		0J			1A			1C		
		10	100						4×5.4	1.8
15	150						4×5.4	1.8	80	
22	220	4×5.4	1.8	80	4×5.4	1.8	80	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)
33	330	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)
47	470	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)
56	560	5×5.4	0.76	150	6.3×5.4	0.44	230	6.3×5.4	0.44	230
68	680	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4	0.44	230	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)
100	101	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)
150	151	6.3×5.4	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280
220	221	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (8×6.2)	0.34 (0.34)	280 (280)	8×10.5 (6.3×7.7)	0.17 (0.34)	450 (280)
330	331	6.3×7.7 (8×6.2)	0.34 (0.34)	280 (280)	8×10.5	0.17	450	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)
470	471	8×10.5	0.17	450	8×10.5	0.17	450	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)
680	681	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	10×13.5 (10×10.5)	0.075 (0.09)	800 (670)
1000	102	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	16×16.5 (12.5×16) (12.5×13.5)	0.055 (0.06) (0.065)	1350 (1050) (900)
1500	152	10×13.5 (10×10.5)	0.075 (0.09)	800 (670)	12.5×13.5	0.065	900	16×16.5	0.055	1350
2200	222	12.5×13.5	0.065	900	12.5×16	0.060	1050	16×16.5	0.055	1350
3300	332	12.5×16	0.060	1050	16×16.5	0.055	1350	Case Size ∅D×L(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz
4700	472	16×16.5	0.055	1350						

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DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV Cap. (µF)		25			35			50		
		1E			1V			1H		
4.7	4R7				4×5.4	1.8	80	5×5.4 (4×5.4)	1.52 (3.0)	85 (60)
10	100	4×5.4	1.8	80	5×5.4 (4×5.4)	0.76 (1.8)	150 (80)	6.3×5.4 (5×5.4)	0.88 (1.52)	165 (85)
15	150	5×5.4	0.76	150	5×5.4	0.76	150	6.3×5.4	0.88	165
22	220	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×7.7 (6.3×5.4) (8×6.2)	0.68 (0.88) (0.68)	185 (165) (185)
33	330	6.3×5.4 (5×5.4)	0.44 (0.76)	230 (150)	6.3×5.4 (8×6.2)	0.44 (0.34)	230 (280)	6.3×7.7 (8×6.2)	0.68 (0.68)	185 (185)
47	470	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (6.3×5.4) (8×6.2)	0.34 (0.44) (0.34)	280 (230) (280)	6.3×7.7 (8×6.2)	0.68 (0.68)	185 (185)
56	560	6.3×7.7 (6.3×5.4)	0.34 (0.44)	280 (230)	6.3×7.7	0.34	280	8×10.5 (6.3×7.7)	0.34 (0.68)	350 (185)
68	680	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8×10.5	0.34	350
100	101	6.3×7.7 (8×6.2)	0.34 (0.34)	280 (280)	8×10.5	0.17	450	10×10.5 (8×10.5)	0.18 (0.34)	670 (350)
150	151	8×10.5 (6.3×7.7)	0.17 (0.34)	450 (280)	10×10.5	0.09	670	10×10.5	0.18	670
								Case Size ØD×L(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV Cap. (µF)		25			35			50		
		1E			1V			1H		
220	221	8×10.5	0.17	450	10×10.5	0.09	670	10×13.5 (10×10.5)	0.16 (0.18)	750 (670)
330	331	10×10.5 (8×10.5)	0.09 (0.17)	670 (450)	10×10.5	0.09	670	12.5×13.5	0.14	800
470	471	10×13.5 (10×10.5)	0.075 (0.09)	800 (670)	12.5×13.5 (10×13.5)	0.065 (0.075)	900 (800)	16×16.5 (12.5×16)	0.10 (0.12)	1150 (900)
680	681	12.5×13.5	0.065	900	12.5×16 (12×13.5)	0.060 (0.065)	1050 (900)			
1000	102	16×16.5 (12.5×16)	0.055 0.060	1350 (1050)	16×16.5	0.055	1350			
1500	152	16×16.5	0.055	1350				Case Size ØD×L(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Coefficient		Frequency		50Hz	120Hz	300Hz	1KHz	10KHz
		Cap. Range	Cap. Range					
Ø4~Ø10	4.7~68µF	100~1500µF	4.7~68µF	0.35	0.50	0.64	0.83	1.00
			100~1500µF	0.40	0.55	0.70	0.85	1.00
	Ø12.5~Ø16	~680µF	~680µF	0.45	0.65	0.80	0.90	1.00
			1000~4700µF	0.65	0.85	0.95	1.00	1.00