

# SMD Aluminum Electrolytic Capacitor – JCW

## FEATURES

- Life time 105°C 10000hrs standard product
- High stability and reliability
- Reflow soldering is available
- Available for high density surface mounting



## SPECIFICATIONS

Category Temperature Range -40°C ~ +105°C  
 Rated Voltage Range 6.3V ~ 450V.DC  
 Capacitance Range 1 ~ 1000µF  
 Capacitance Tolerance ±20% (120Hz, 20°C)

Leakage Current	6.3V ~ 50V.DC	160V ~ 450V.DC	20°C
	$I \leq 0.03CV (\mu A)$ or $4 (\mu A)$ whichever is greater (after 2 minutes)		
	$I \leq 0.04CV + 100 (\mu A)$ (after 2 minutes)		
	$I = \text{Leakage Current } (\mu A)$	$C = \text{Nominal Capacitance } (\mu F)$	$V = \text{Rated Voltage } (V)$

Dissipation Factor (MAX) Tan δ (20°C, 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	160~250	400~450
	Tan δ	0.32	0.28	0.26	0.16	0.14	0.14	0.20	0.24

In 105°C degrees Celsius environment, continuous application of rated voltage for 10000 hours, after 16 hours was measured at room temperature, the capacitors shall meet the following requirements :

Load Life	Rated Voltage (V)	6.3V ~ 50V	160V ~ 450V
	Capacitance Change	Within ± 30% of the initial value	Within ± 20% of the initial value
	Dissipation Factor	Not more than 300% of the specified value	Not more than 200% of the specified value
	Leakage Current	Not more than the specified value	Not more than the specified value

In 105°C degrees Celsius environment, without load for 1000 hours, after 16 hours was measured at room temperature, the capacitors shall meet the following requirements :

Shelf Life	Rated Voltage (V)	6.3V ~ 50V	160V ~ 450V
	Capacitance Change	Within ± 30% of the initial value	Within ± 20% of the initial value
	Dissipation Factor	Not more than 300% of the specified value	Not more than 200% of the specified value
	Leakage Current	Within 300% of initial specified value	Within 200% of initial specified value

The capacitors shall be kept on then hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement:

Resistance to Soldering Heat	Capacitance Change	Within ± 10% of initial value
	Dissipation Factor	Not more than the initial specified value
	Leakage Current	Not more than the initial specified value

Low Temperature Stability Impedance Ratio (MAX) 120Hz	Rated Voltage (V)	6.3	10	16	25	35	50	160~250	400~450
	Z-25°C / Z+20°C	4	3	2	2	2	2	6	6
	Z-40°C / Z+20°C	10	8	6	4	3	3	10	18

## DRAWING (Unit: mm)

Fig. 1 (Φ4 ~ Φ10)

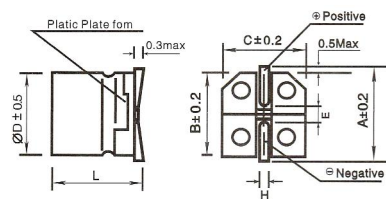
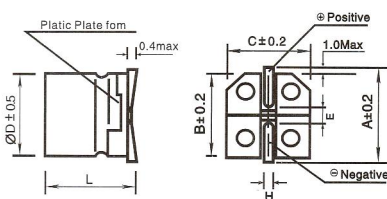


Fig. 2 (≥Φ12.5)



ΦD	L	A	B	C	E	H	Fig. No.
6.3	7.7±0.3	7.2	6.6	6.6	2.1	0.5~0.9	1
6.3	10.2±0.3	7.2	6.6	6.6	2.1	0.5~0.9	1
8	10.2±0.5	9.1	8.3	8.3	3.1	0.8~1.1	1
8	12.5±0.5	9.1	8.3	8.3	3.1	0.8~1.1	1
10	10.2±0.5	11.1	10.3	10.3	4.5	0.8~1.1	1
10	12.5±0.5	11.1	10.3	10.3	4.5	0.8~1.1	1
12.5	13.5±0.5	13.7	13.0	13.0	4.4	1.0~1.4	2
12.5	16±0.5	13.7	13.0	13.0	4.4	1.0~1.4	2
16	16.5±0.5	18.0	17.0	17.0	6.4	1.0~1.4	2
16	21.5±0.5	18.0	17.0	17.0	6.4	1.0~1.4	2
18	16.5±0.5	20.0	19.0	19.0	6.4	1.0~1.4	2
18	21.5±0.5	20.0	19.0	19.0	6.4	1.0~1.4	2

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### FREQUENCY COEFFICIENT

Frequency	120Hz	1kHz	10kHz	100kHz
Coefficient	1.00	1.60	1.80	2.00

### STANDARD SIZE

WV	6.3			10			16			25			35			50		
μF	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA
10	--	--	--	--	--	--	--	--	--	--	--	--	6.3x7.7	0.14	31	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	6.3x7.7	0.14	43	--	--	--
33	--	--	--	--	--	--	--	--	--	6.3x7.7	0.16	48	--	--	--	8x10.2	0.14	79
47	--	--	--	--	--	--	6.3x7.7	0.26	50	--	--	--	8x10.2	0.14	90	8x10.2	0.14	95
100	6.3x7.7	0.32	60	--	--	--	--	--	--	8x10.2	0.16	119	8x10.2	0.14	132	10x10.2	0.14	155
220	--	--	--	8x10.2	0.28	145	8x10.2	0.26	159	--	--	--	10x10.2	0.14	220	--	--	--
330	8x10.2	0.32	165	--	--	--	8x10.2	0.26	194	--	--	--	--	--	--	--	--	--
470	8x10.2	0.32	196	--	--	--	10x10.2	0.26	260	--	--	--	--	--	--	--	--	--
1000	10x10.2	0.32	315	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

WV	160			200			250			400			450		
μF	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA	DxL	Tan δ	mA
1							6.3x10.2	0.20	20	6.3x10.2	0.24	17	8x10.2	0.24	20
2.2							6.3x10.2	0.20	31	8x10.2	0.24	30	10x10.2	0.24	35
3.3							8x10.2	0.20	43	10x10.2	0.24	39	10x10.2	0.24	38
4.7				8x10.2	0.20	53	8x10.2	0.20	52	10x10.2	0.24	56	10x10.2	0.24	59
5.6				8x10.2	0.20	58	8x12.5	0.20	62	10x10.2	0.24	66	12.5x13.5	0.24	75
6.8	8x10.2	0.20	68	8x10.2	0.20	64	10x10.2	0.20	72	12.5x13.5	0.24	72			
8.2	10x10.2	0.20	85	8x12.5	0.20	77	10x12.5	0.20	85						
10	10x10.2	0.20	95	12.5x13.5	0.20	110	12.5x13.5	0.20	110						
12	10x10.2	0.20	104	12.5x13.5	0.20	125	12.5x13.5	0.20	120						
15	12.5x13.5	0.20	140	12.5x13.5	0.20	140									

Rated ripple current (mA, 105°C, 120Hz)

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