VA Series Chip Type Aluminum Electrolytic Capacitors

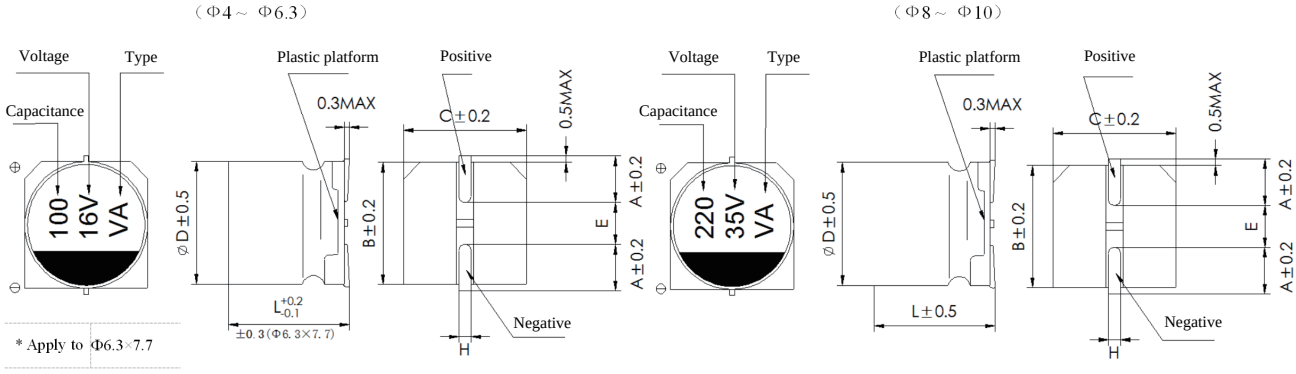
Features

- Low impedance.
- Reflow soldering is available.
- Available for high density surface mounting.
- (-55℃ ~ +105℃) Operating over wide temperature range.
- Adapted to the ROHS directive (2002/95/EC) 。

Specifications

Items	Performance Characteristics						
Operating Temperature Range	-55℃ ~+105℃						
Rated Voltage Range	6.3V ~ 50V						
Nominal Capacitance Range	1 ~ 1000μF						
Capacitance Tolerance	±20% (20℃ , 120Hz)						
Leakage Current	I≤0.01CRVR or 3(μA) Whichever is greater(at 20℃, after 2 minutes) CR: Nominal Capacitance (μF) UR: Rated voltages (V)						
Dissipation Factor (Max) 20℃, 120Hz	U_R (V)	6.3	10	16	25	35	50
	tgδ	0.22	0.19	0.16	0.14	0.12	0.12
Load Life	After 2000 hours application of rated voltage at 105℃, the capacitor shall meet the following requirement:						
	Capacitance Change	Within ±30% of the initial value					
	Dissipation Factor	Not more than 300% of the initial specified value					
	Leakage Current	Not more than the initial specified value					
Shelf Life	After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above						
Low Temperature Stability Impedance Ratio (120Hz)	U_R (V)	6.3	10	16	25	35	50
	Z(-25℃)/Z(+20℃)	2	2	2	2	2	2
	Z(-40℃)/Z(+20℃)	4	4	3	3	3	3
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.						
	Capacitance Change	Within ±10% of the initial value					
	Dissipation Factor	Not more than the initial specified value					
	Leakage Current	Not more than the initial specified value					

Case Size Table



(mm)

	4 × 5.4	5 × 5.4	6.3 × 5.4	6.3 × 7.7	8 × 6.5	8 × 10.5	10 × 10.5
A	3.0	2.1	2.4	2.4	2.9	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	7.7	6.5	10.5	10.5
H	0.5 ~ 0.8					0.8 ~ 1.1	

Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Tab le

V / μF	6.3			10			16			25			35			50		
	D×L mm	Impedance Ω	I~ mA	D×L mm	Impedance Ω	I~ mA	D×L mm	Impedance Ω	I~ mA	D×L mm	Impedance Ω	I~ mA	D×L mm	Impedance Ω	I~ mA	D×L mm	Impedance Ω	I~ mA
1.0																4×5.4	5.00	30
2.2																4×5.4	5.00	30
3.3																4×5.4	5.00	30
4.7													4×5.4	3.0	60	5×5.4	3.0	50
10										4×5.4	3.00	60	5×5.4	1.8	95	6.3×5.4	2.0	70
22				4×5.4	3.00	60	5×5.4	1.8	95	5×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	2.0	70
33	5×5.4	1.8	95	5×5.4	1.8	95	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×7.7	1.4	120
47	5×5.4	1.8	95	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×7.7	1.4	120
100	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×5.4	1.0	140	6.3×7.7	0.7	220	8x10.5	0.3	300	8x10.5	0.6	300
220	6.3×5.4	1.0	140	6.3×7.7	0.7	220	6.3×7.7	0.7	220	8x10.5	0.3	450	8x10.5	0.3	450	10x10.5	0.3	500
330	6.3×7.7	0.7	220	8x10.5	0.3	450	8x10.5	0.3	450	8x10.5	0.3	450	10x10.5	0.15	650			
470	8x10.5	0.3	450	8x10.5	0.3	450	8x10.5	0.3	450	10x10.5	0.15	650						
1000	8x10.5	0.3	450	10x10.5	0.15	650												

I~=Rated ripple current (mA) (105℃, 100kHz)

20℃ 100 KHz (Ω) MAX

Frequency Coefficient of Ripple Current

Frequency	50Hz	120Hz	300Hz	1KHz	≥ 10KHz
Coefficient	0.64	0.50	0.64	0.83	1.00