VT Chip Type Aluminum Electrolytic Capacitors

Features

- Case diameter: Φ4mm-Φ10mm.
- Reflow soldering is available.
- Available for high density surface mounting.
- Operating over wide temperature range (-40~+105℃)
- Adapted to the RoHS directive.

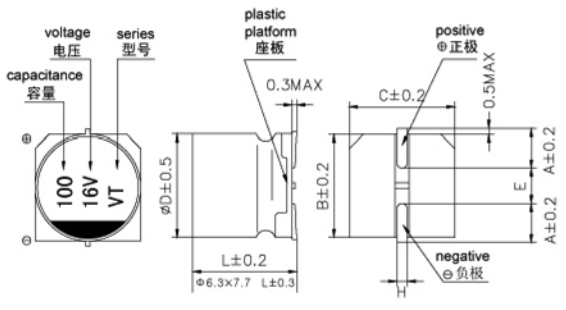
Specifications

Item	Performance Characteristics
Operating Temperature Range	-40℃ ~+105℃
Rated Voltage Range	4~50V
Nominal Capacitance Range	0.1~1000μF
Nominal Capacitance Tolerance	±20%(+20℃,120Hz)
Leakage Current	I ≤ 0.01$C_R U_R$ or 3(μA),Whichever is greater (at 20℃, after 2 minutes) C_R: Nominal capacitance(μF), U_R: Rated voltage(V)
Dissipation Factor(Max) (tgδ,+20℃,120Hz)	U_R(V): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 tgδ: 0.35 / 0.28 / 0.24 / 0.20 / 0.16 / 0.14 / 0.12
Load Life	After 1000 hours' application of rated voltage at 105℃, the capacitor shall meet the following requirement: Capacitance change: Within ±20% of the initial value(≤ 16V: within ±25% 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 requipment of load life above.
Low Temperature Stability Impedance Ratio(120Hz)	U_R(V): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 Z-25℃/+20℃: 7 / 4 / 3 / 2 / 2 / 2 / 2 Z-40℃/+20℃: 15 / 8 / 6 / 4 / 4 / 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

Diagram of Dimensions

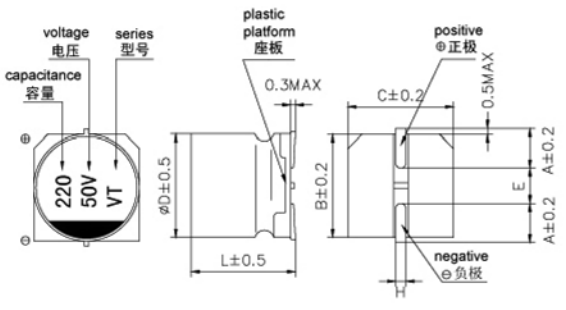
Unit: mm

Φ4~Φ6.3



ΦD	A	B	C	E	L	H
4×5.4	1.8	4.3	4.3	1.0	5.4	0.5-0.8
5×5.4	2.1	5.3	5.3	1.3	5.4	
6.3×5.4	2.4	6.6	6.6	2.2	5.4	
6.3×7.7	2.4	6.6	6.6	2.2	7.7	

Φ8~Φ10



ΦD	A	B	C	E	L	H
8×6.5	2.9	8.3	8.3	2.3	6.5	0.8-1.1
8×10.5	2.9	8.3	8.3	3.1	10.5	
10×10.5	3.2	10.3	10.3	4.5	10.5	

Nominal capacitance,rated voltage,rated ripple current and case size table

V / Item / Cap.(μF)	4		6.3		10		16		25		35		50	
	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)
0.1													4×5.4	2.3
0.22													4×5.4	3.4
0.33													4×5.4	4.1
0.47													4×5.4	5
1.0													4×5.4	10
2.2													4×5.4	16
3.3											4×5.4	13	4×5.4	16
4.7									4×5.4	22	4×5.4	22	5×5.4	23
10							4×5.4	28	5×5.4	28	5×5.4	30	6.3×5.4	32
22			4×5.4	29	5×5.4	30	5×5.4	39	6.3×5.4	55	6.3×5.4	38	6.3×7.7	51
33	4×5.4	29	5×5.4	34	5×5.4	34	5×5.4	35	6.3×5.4	65	6.3×5.4	42	6.3×7.7	70
47	4×5.4	30	5×5.4	46	6.3×5.4	48	6.3×5.4	70	6.3×5.4	70	6.3×7.7	80	6.3×7.7	80
100	5×5.4	47	6.3×5.4	71	6.3×5.4	69	6.3×5.4	70	6.3×7.7	100	8×10.5	296	8×10.5	230
220	6.3×5.4	71	6.3×7.7	120	6.3×7.7	120	6.3×7.7	120	8×10.5	320	10×10.5	435	10×10.5	375
330	6.3×7.7	105	6.3×7.7	290	8×10.5	305	8×10.5	425	10×10.5	450	10×10.5	450		
470	6.3×7.7	105	8×10.5	330	8×10.5	340	8×10.5	340	10×10.5	490				
							10×10.5	470						
1000	8×10.5	260	10×10.5	475	10×10.5	410								

I~ =Rated ripple current (mA)(+105° C ,120Hz)

Frequency coefficient of ripple current

Frequency(Hz)	50Hz	120Hz	300Hz	1kHz	10K~100KHz
Coefficient	0.70	1.00	1.17	1.36	1.50