VH 片式铝电解电容

VH Chip Type Aluminum Electrolytic Capacitors

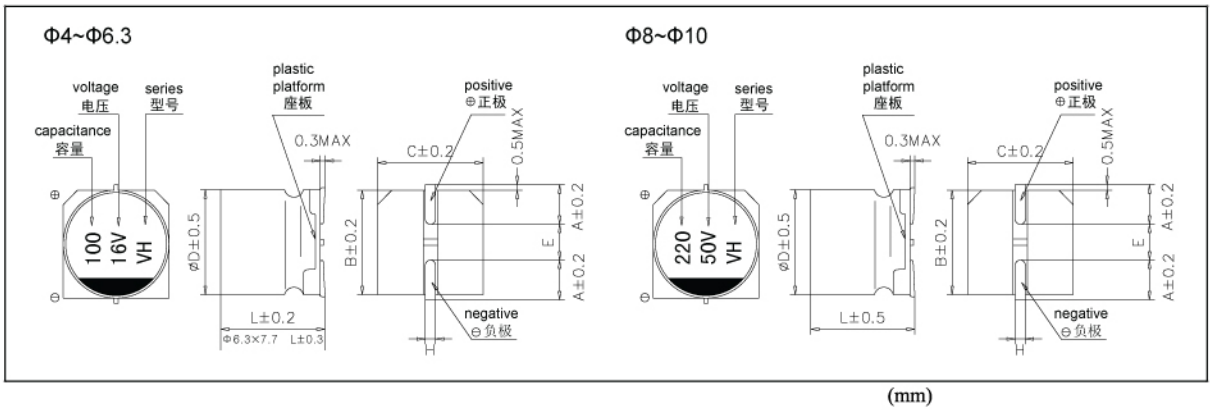
■ 特点 Features

◎ 产品直径。 Case diameter: : Φ 4mm – Φ 10mm.
◎ 适用于再流焊。Reflow soldering is available.
◎ 适用于高密度表面组装。Available for high density surface mounting.
◎ RoHS指令已对应完毕。 Adapted to the RoHS directive.

■ 主要技术性能 Specifications

项目 Items	特性 Characteristics							
工作温度范围 Operating Temperature Range	–55℃ ~+105℃							
额定电压范围 Rated Voltage Range	4V ~ 50V							
标称电容量范围 Nominal Capacitance Range	0.1 ~ 1000 μ F							
标称电容量允许偏差 Nominal Capacitance Tolerance	±20%（20℃，120Hz）							
漏电流 Leakage Current	I≤0.01CRVR or 3(μA)，取较大者（2分钟） CR：标称电容量（μF） UR：额定电压（V） I≤0.01CRVR or 3(μA) Whichever is greater(at 20℃,After 2 minutes) CR: Nominal Capacitance (μF) UR: Rated voltages (V)							
损耗角正切（tg δ） Dissipation Factor (Max) 20℃, 120Hz	UR (V)	4	6.3	10	16	25	35	50
	tg δ	0.40	0.30	0.24	0.20	0.16	0.14	0.14
耐久性 Load Life	+105℃施加额定电压2000小时后，电容器应满足以下要求： After 2000 hours' application of rated voltage at 105℃, the capacitor shall meet the following requirement:							
	电容量变化率 Capacitance Change	±20%初始值以（16V：±25%初始值以内） Within ±20% of the initial value (≤16V: within ±25% of the initial value)						
	损耗角正切 Dissipation Factor	≤ 200%初始规定值 Not more than 200% of the initial specified value						
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value						
高温贮存 Shelf Life	+105℃贮存1000小时后，电容器应满足以上耐久性要求: After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above:							
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	UR (V)	4	6.3	10	16	25	35	50
	Z(–25℃)/Z(+20℃)	7	4	3	2	2	2	2
	Z(–40℃)/Z(+20℃)	15	8	8	4	4	3	3
耐焊接热 Resistance to Soldering Heat	在250℃的条件下，电容器在热板上保持30秒，然后从热板上取出电容器，让其在室温下恢复，电容器应满足以下要求：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:							
	电容量变化率 Capacitance Change	±10%初始值以内 Within ±10% of the initial value						
	损耗角正切（tg δ） Dissipation Factor	≤初始规定值 Not more than the initial specified value						
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value						

■ 尺寸图 Dimensions



(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	1.8	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	10
H	0.5~0.8				0.8~1.1		

◇标称电容量、额定电压、额定纹波电流与外形尺寸对应表
Nominal capacitance, rated voltage, rated ripple current and case size table

V / μF	4		6.3		10		16		25		35		50	
	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA
0.1														
0.22														
0.33														
0.47														
1.0													4×5.4	6.3
2.2													4×5.4	11
3.3													4×5.4	14
4.7									4×5.4	13	4×5.4	16	5×5.4	19
10							4×5.4	18	5×5.4	23	5×5.4	27	6.3×5.4	30
22	4×5.4	22	4×5.4	22	5×5.4	27	5×5.4	30	6.3×5.4	38	6.3×5.4	44	6.3×7.7	51
33	5×5.4	30	5×5.4	30	5×5.4	35	6.3×5.4	40	6.3×5.4	48	6.3×7.7	59	6.3×7.7	60
47	5×5.4	36	5×5.4	36	6.3×5.4	46	6.3×5.4	50	6.3×7.7	66	6.3×7.7	80	6.3×7.7 8×6.5	63
100	6.3×5.4	60	6.3×5.4	60	6.3×5.4	60	6.3×5.4	95	6.3×7.7 8×6.5	91	6.3×7.7	100	8×10.5	230
150	6.3×5.4	86	6.3×5.4	86	6.3×7.7	86	6.3×7.7		8×10.5	240	8×10.5	260	10×10.5	250
220	6.3×7.7	102	6.3×7.7	102	6.3×7.7 8×6.5	105	6.3×7.7	105	8×10.5	320	10×10.5	450	10×10.5	375
330	6.3×7.7	105	8×10.5	290	8×10.5	290	8×10.5	290	10×10.5	450				
470	6.3×7.7	105	8×10.5	340	8×10.5	320	8×10.5	320	10×10.5	490				
680	8×10.5	340	8×10.5	340	10×10.5	392	10×10.5	470						
1000	8×10.5	340	10×10.5	495	10×10.5	550								

I~=Rated ripple current (mA) (105℃, 120Hz) I~=额定纹波电流（mA）（105℃，120Hz）

◇额定纹波电流的频率系数 Frequency coefficient of ripple current

Frequency 频率	50Hz	120Hz	300Hz	1KHz	10K~100KHz
Coefficient 系数	0.70	1.00	1.17	1.36	1.50