

VH 型片式铝电解电容

VH Series Chip Type Aluminum Electrolytic Capacitors



■ 特点 Features

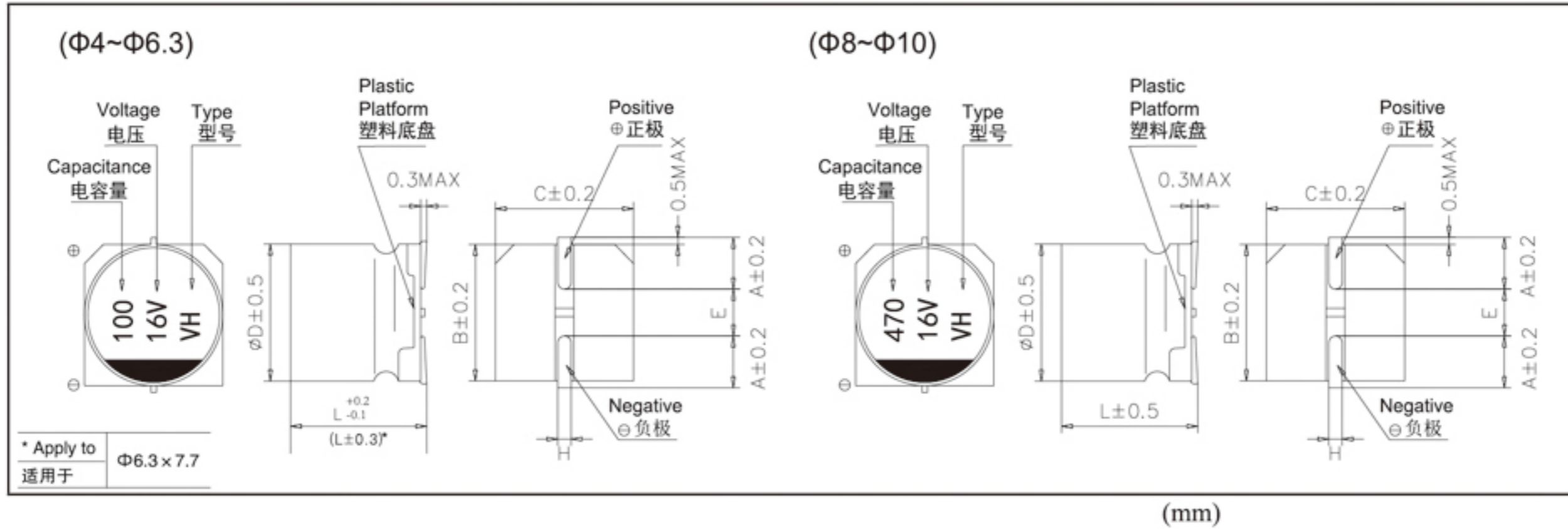
- ◎ 产品直径。 Case diameter: : $\Phi 4\text{mm} - \Phi 10\text{mm}$.
- ◎ 适用于再流焊。 Reflow soldering is available.
- ◎ 适用于高密度表面组装。 Available for high density surface mounting.
- ◎ ROHS指令已对应完毕。 Adapted to the ROHS directive.

■ 主要技术性能 Specifications

项目 Items	特性 Characteristics						
工作温度范围 Operating Temperature Range	-55°C ~+105°C						
额定电压范围 Rated Voltage Range	6.3V ~ 50V						
标称容量范围 Nominal Capacitance Range	0.1 ~ 1000 μF						
标称容量允许偏差 Nominal Capacitance Tolerance	$\pm 20\%$ (20°C, 120Hz)						
漏电流 Leakage Current	$I \leq 0.01C_R V_R$ or $3(\mu\text{A})$, 取较大者 (2分钟) C_R : 标称容量 (μF) U_R : 额定电压 (V) $I \leq 0.01C_R V_R$ or $3(\mu\text{A})$ Whichever is greater (at 20°C, after 2 minutes) C_R : Nominal Capacitance (μF) U_R : Rated voltages (V)						
损耗角正切 ($\text{tg } \delta$) Dissipation Factor (Max) 20°C, 120Hz	U_R (V)	6.3	10	16	25	35	50
	$\text{tg } \delta$	0.30	0.24	0.20	0.16	0.14	0.14
耐久性 Load Life	+105°C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°C, the capacitor shall meet the following requirement:						
	电容量变化率 Capacitance Change	$\pm 30\%$ 初始值以 Within $\pm 30\%$ of the initial value					
	损耗角正切 Dissipation Factor	$\leq 300\%$ 初始规定值 Not more than 300% of the initial specified value					
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value					
高温贮存 Shelf Life	+105°C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°C, the capacitors shall meet the requirement of load life above:						
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	U_R (V)	6.3	10	16	25	35	50
	$Z(-25^\circ\text{C})/Z(+20^\circ\text{C})$	4	3	2	2	2	2
	$Z(-40^\circ\text{C})/Z(+20^\circ\text{C})$	8	8	4	4	3	3
耐焊接热 Resistance to Soldering Heat	在250°C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°C 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	$\pm 10\%$ 初始值以内 Within $\pm 10\%$ of the initial value					
	损耗角正切 ($\text{tg } \delta$) Dissipation Factor	\leq 初始规定值 Not more than the initial specified value					
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value					

Chip

■ 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	1.3	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			

◇ 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	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
1.0											4 × 5.4	6.3
2.2											4 × 5.4	11
3.3											4 × 5.4	14
4.7									4 × 5.4	16	5 × 5.4	19
10					4 × 5.4	18	4 × 5.4	13	5 × 5.4	27	6.3 × 5.4	30
22	4 × 5.4	22	5 × 5.4	27	5 × 5.4	30	5 × 5.4	23	6.3 × 5.4	44	6.3 × 7.7	51
33	5 × 5.4	30	5 × 5.4	35	6.3 × 5.4	40	6.3 × 5.4	38	6.3 × 7.7	59	6.3 × 7.7	60
47	5 × 5.4	36	6.3 × 5.4	46	6.3 × 5.4	50	6.3 × 5.4	48	6.3 × 7.7	80	6.3 × 7.7	63
100	6.3 × 5.4	60	6.3 × 5.4	60	6.3 × 5.4	60	6.3 × 7.7	66	6.3 × 7.7	100	8 × 10.5	230
150	6.3 × 5.4	86	6.3 × 7.7	86	6.3 × 7.7	95	6.3 × 7.7	91	8 × 10.5	260	10 × 10.5	250
220	6.3 × 7.7	102	6.3 × 7.7	105	6.3 × 7.7	105	8 × 10.5	240	10 × 10.5	450	10 × 10.5	375
330	8 × 10.5	290	8 × 10.5	290	8 × 10.5	290	8 × 10.5	320	10 × 10.5	410		
470	8 × 10.5	340	8 × 10.5	320	8 × 10.5	320	10 × 10.5	450				
680	8 × 10.5	340	10 × 10.5	392	10 × 10.5	470	10 × 10.5	490				
1000	10 × 10.5	495	10 × 10.5	450								

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