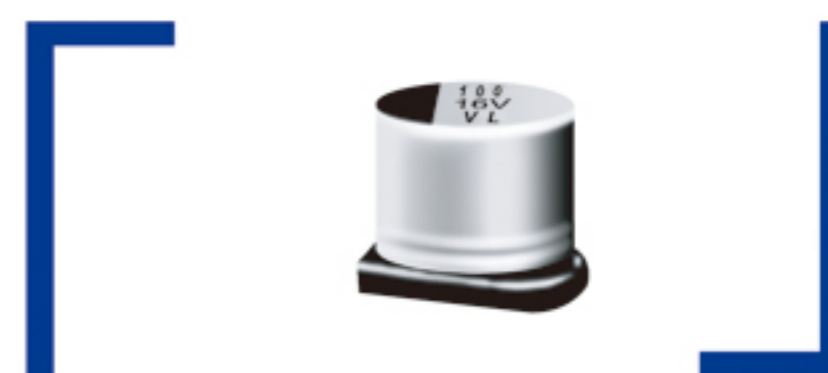


# VL 型片式铝电解电容

# VL Series Chip Type Aluminum Electrolytic Capacitors



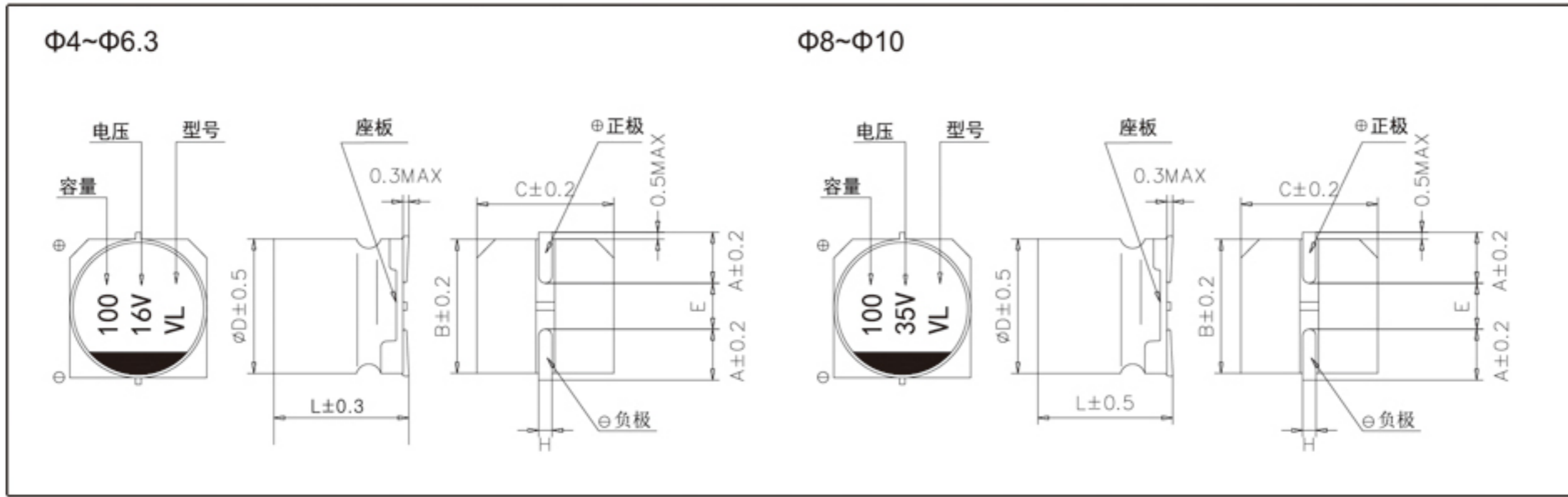
## 特点 Features

- ◎ +105℃3000-5000小时保证品。load life of 3000-5000 hours at +105℃.
- ◎ 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 ( 2002/95/EC ) 已对应完毕。Adapted to the ROHS directive ( 2002/95/EC ) .

## 主要技术性能 Specifications

项目 Items	特性 Characteristics						
工作温度范围 Operating Temperature Range	-40℃ ~+105℃						
额定电压范围 Rated Voltage Range	6.3V ~ 50V						
标称容量范围 Nominal Capacitance Range	0.1 ~ 1000 μ F						
标称容量允许偏差 Nominal Capacitance Tolerance	± 20% ( 20℃, 120Hz )						
漏电流 Leakage Current	I≤0.01C <sub>R</sub> V <sub>R</sub> or 3(μA), 取较大者 ( 2分钟 ) C <sub>R</sub> : 标称容量 ( μF ) U <sub>R</sub> : 额定电压 ( V ) I≤0.01C <sub>R</sub> V <sub>R</sub> or 3(μA) Whichever is greater(at 20℃, after 2 minutes) C <sub>R</sub> : Nominal Capacitance ( μF ) U <sub>R</sub> : Rated voltages ( V )						
损耗角正切 ( tg δ ) Dissipation Factor (Max) 20℃, 120Hz	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	tg δ	0.32	0.24	0.20	0.16	0.13	0.12
耐久性 Load Life	+105℃施加额定电压5000小时后 ( ΦD=4, 5和6.3为3000小时 ) , 电容器应满足以下要求: After 5000 hours (3000 hours for ΦD = 4, 5 and 6.3) . application of rated voltage at 105℃, the capacitor shall meet the following requirement:						
	电容量变化率 Capacitance Change	± 30%初始值以内 Within ±30% of the initial value					
	损耗角正切 Dissipation Factor	≤ 300%初始规定值 Not more than 300% of the initial specified value					
高温贮存 Shelf Life	+105℃ 贮存1000小时后, 加额定工作电压30分钟,电容器应满足以上耐久性要求: After storage for 1000 hours at +105℃, U <sub>R</sub> to be applied for 30 minutes ,the capacitors shall meet the requirement of load life above:						
	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	Z(-40℃)/Z(+20℃)	10	7	5	3	3	3
	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					
耐焊接热 Resistance to Soldering Heat	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)

	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×10.5	10×10.5
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.8	5.8	5.8	7.7	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											4×5.8	8
2.2											4×5.8	12
3.3											4×5.8	17
4.7									4×5.8	20	5×5.8	21
10					4×5.8	20	5×5.8	30	5×5.8	30	6.3×5.8	35
22			5×5.8	30	5×5.8	35	6.3×5.8	45	6.3×5.8	50	6.3×7.7	52
33	5×5.8	40	5×5.8	40	6.3×5.8	50	6.3×5.8	50	6.3×7.7	62	8×10.5	80
47	5×5.8	45	6.3×5.8	55	6.3×5.8	60	6.3×7.7	65	8×10.5	100	8×10.5	95
100	6.3×5.8	70	6.3×5.8	75	6.3×7.7	90	8×10.5	140	10×10.5	260	10×10.5	99
220	6.3×7.7	105	8×10.5	170	10×10.5	230	10×10.5	230	10×10.5	230		
330	8×10.5	245	10×10.5	245	10×10.5	240	10×10.5	250				
470	10×10.5	350	10×10.5	350	10×10.5	360						
1000	10×10.5	350										

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	≥10KHz
Coefficient 系数	0.70	1.00	1.17	1.36	1.50