



# VL

## 铝电解电容器-贴片型

## Aluminum electrolytic capacitor- SMD type

### 特点 Features

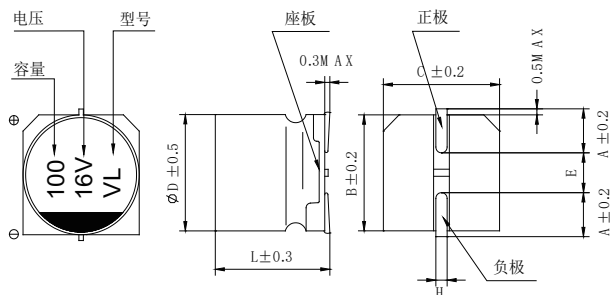
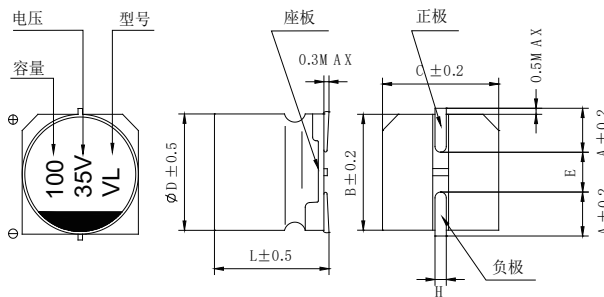
- ◆ +105°C 3000-5000小时保证品。load life of 3000-5000 hours at +105°C
- ◆ 适用于再流焊。Reflow soldering is available.
- ◆ 适用于高密度表面组装。available for high density surface mounting.
- ◆ RoHS指令 (2002/95/EC) 已对应完毕。Adapted to the RoHS directive (2002/95/EC)。



### 主要技术性能 Specifications

项目 Items	特性 Performance Characteristics						
工作温度范围 Operating Temperature Range	-55~+105°C						
额定电压范围 Rated Voltage Range	6.3~50V						
标称电容量范围 Nominal Capacitance Range	4.7~2200μF						
标称电容量允许偏差 Capacitance Tolerance	±20% (20°C, 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°C, after 2 minutes) CR: Nominal Capacitance (μF) UR: Rated voltages (V)						
损耗角正切 (tgδ) Dissipation Factor (Max) 20°C, 120Hz	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	tgδ	0.32	0.24	0.20	0.16	0.14	0.12
耐久性 Load Life	+105°C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°C, 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°C 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°C, UR 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°C)/Z(+20°C)	4	3	2	2	2	2
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	Z(-55°C)/Z(+20°C)	10	7	5	3	3	3
	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	±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 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					

## 外形图及尺寸表 Case Size Table

 $\Phi 4 \sim \Phi 6.3$ 

 $\Phi 8 \sim \Phi 12.5$ 


单位 Unit: mm

	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×10.5	10×10.5	12.5×13.5
A	1.8	2.1	2.4	2.4	2.9	3.2	4.7
B	4.3	5.3	6.6	6.6	8.3	10.3	13
C	4.3	5.3	6.6	6.6	8.3	10.3	13
E	1.0	1.3	2.2	2.2	3.1	4.5	4.5
L	5.8	5.8	5.8	7.7	10.5	10.5	13.5
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
4.7							4×5.8	16	4×5.8	14	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	6.3×5.8	45	6.3×7.7	55
47	5×5.8	45	6.3×5.8	55	6.3×5.8	60	6.3×7.7	65	6.3×7.7	65	8×10.5	95
100	6.3×5.8	70	6.3×5.8	58	6.3×7.7	90	6.3×7.7	100	8×10.5	100	10×10.5	99
220	6.3×7.7	105	6.3×7.7	89	8×10.5	250	8×10.5	145	10×10.5	230	12.5×13.5	280
330	8×10.5	245	8×10.5	170	8×10.5	260	10×10.5	250	10×10.5	250	12.5×13.5	300
470	10×10.5	350	8×10.5	160	10×10.5	310	10×10.5	300	12.5×13.5	330		
1000	10×10.5	350	10×10.5	310	12.5×13.5	450	12.5×13.5	330				
2200	12.5×13.5	450	12.5×13.5	410								

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

## 额定纹波电流频率修正系数

## Frequency correction factor for ripple current

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