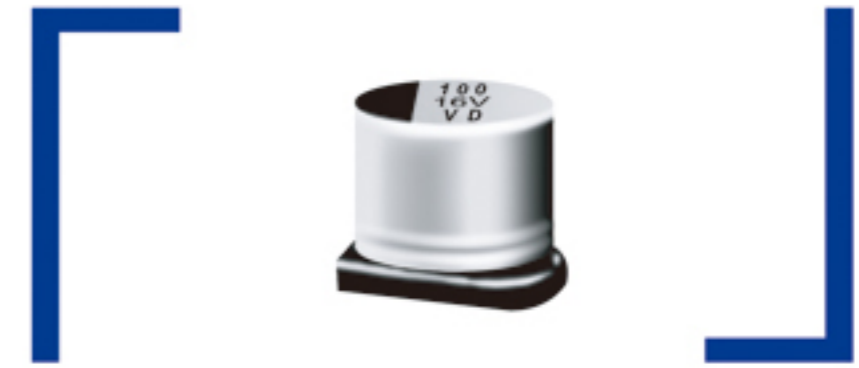


## VD 型片式铝电解电容

## VD Series Chip Type Aluminum Electrolytic Capacitors

### ■ 特点 Features

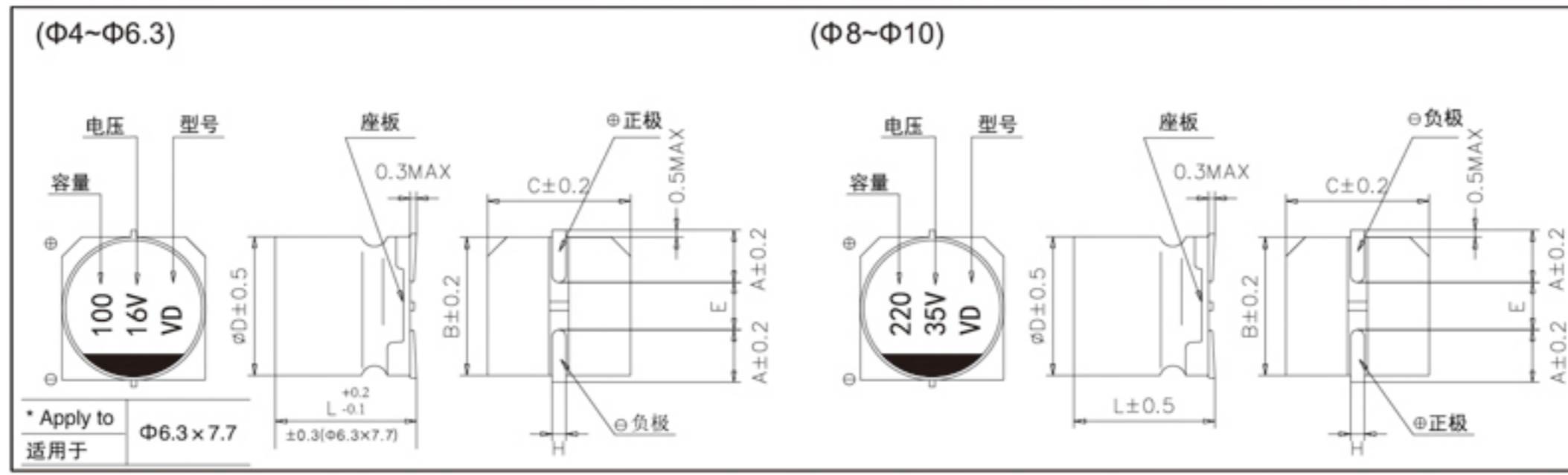
- ◎ 低阻抗。Low impedance.
- ◎ 适用于再流焊。Reflow soldering is available.
- ◎ 适用于高密度表面组装。available for high density surface mounting.
- ◎ 工作温度范围宽 (-55℃~+105℃)。Operating over wide temperature range.
- ◎ ROHS指令已对应完毕。Adapted to the ROHS directive.



### ■ 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	6.3V ~ 50V						
标称电容容量范围 Nominal Capacitance Range	1 ~ 1000 μF						
标称电容容量允许偏差 Nominal Capacitance Tolerance	± 20% ( 20℃, 120Hz )						
漏电流 Leakage Current	I ≤ 0.01C <sub>R</sub> U <sub>R</sub> or 3(μA), 取较大者(2分钟) C <sub>R</sub> : 标称电容容量(μF) U <sub>R</sub> : 额定电压(V) I ≤ 0.01C <sub>R</sub> U <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	0.26(0.28)	0.20(0.24)	0.16(0.20)	0.14(0.16)	0.12(0.14)	0.12(0.14)
注: ( ) 为 Φ8 以上产品。							
耐久性 Load Life	+105℃施加额定电压5000小时后 ( ΦD=4, 5和6.3为2000小时 ), 电容器应满足以下要求: After 5000 hours (2000 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, 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:						
	电容量变化率 Capacitance Change	± 10% 初始值以内 Within ± 10% of the initial value					
低温特性 Low Temperature Stability	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	Z(-25℃)/Z(+20℃)	3	2	2	2	2	2
	Z(-40℃)/Z(+20℃)	5	4	4	3	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



	4X5.4	5X5.4	6.3X5.4	6.3X7.7	8X10.5	10X10.5	(mm)
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	5.4	5.4	5.4	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 x L mm	mpedance Ω	I~ mA	D x L mm	mpedance Ω	I~ mA	D x L mm	mpedance Ω	I~ mA	D x L mm	mpedance Ω	I~ mA	D x L mm	mpedance Ω	I~ mA	D x L mm	mpedance Ω	I~ mA
1.0																4 x 5.4	5.00	30
2.2																4 x 5.4	5.00	30
3.3																4 x 5.4	5.00	30
4.7													4 x 5.4	1.8	80	5 x 5.4	1.52	85
10										4 x 5.4	1.80	80	5 x 5.4	0.76	150	6.3 x 5.4	0.88	165
22				4 x 5.4	1.80	80	5 x 5.4	0.76	150	5 x 5.4	0.76	150	5 x 5.4	0.76	150	6.3 x 5.4	0.88	165
33	5 x 5.4	0.76	150	5 x 5.4	0.76	150	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 7.7	0.68	185
47	5 x 5.4	0.76	150	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 7.7	0.34	280	8x10.5	0.34	350
100	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 5.4	0.44	230	6.3 x 7.7	0.34	280	8x10.5	0.17	600	10x10.5	0.18	670
220	6.3 x 5.4	0.44	230	6.3 x 7.7	0.34	280	6.3 x 7.7	0.34	280	8x10.5	0.17	600	10x10.5	0.09	850			
330	6.3 x 7.7	0.34	280	8x10.5	0.17	600	8x10.5	0.17	600	10x10.5	0.09	850						
470	8x10.5	0.17	600	8x10.5	0.17	600	10x10.5	0.09	850									
1000	10x10.5	0.09	850	10x10.5	0.09	850												

I~ = Rated ripple current (mA) (105°C, 100kHz) I~ = 额定纹波电流 (mA) (105°C, 100kHz)  
20°C 100KHz时的电阻 (Ω) MAX

◇ 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	0.35	0.50	0.64	0.83	1.00