VS 片式铝电解电容
VS Chip Type Aluminum Electrolytic Capacitors

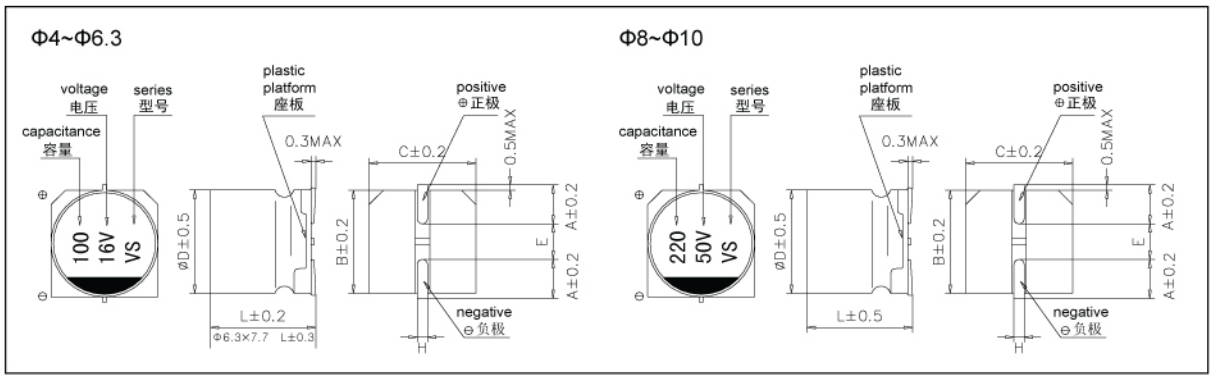
■ 特点 Features

◎ 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	–40℃ ~ 85℃									
额定电压范围 Rated Voltage Range	4V ~ 100V									
标称电容量范围 Nominal Capacitance Range	0.1 ~ 1500μF									
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（tgδ） Dissipation Factor (Max) 20℃, 120Hz	UR (V)	4	6.3	10	16	25	35	50	63	100
	tgδ	0.35	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.10
耐久性 Load Life	+85℃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 85℃, the capacitor shall meet the following requirement:									
	电容量变化率 Capacitance Change	±20%初始值以内（≤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	+85℃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 +85℃, 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	63	100
	Z(–25℃)/Z(+20℃)	< Φ8	7	4	3	2	2	2	2	2	2
		≥ Φ8	7	5	4	3	2	2	2	2	2
	Z(–40℃)/Z(+20℃)	< Φ8	15	8	8	4	4	3	3	3	3
		≥ Φ8	15	10	8	6	4	3	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 Dissipation Factor	≤初始规定值 Not more than the initial specified valuee								
	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	1.0	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

	4		6.3		10		16		25		35		50		63		100	
μF	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	D×L mm	I~ mA	D×L mm	I~ mA
0.1													4×5.4	3.2				
0.22													4×5.4	4.7				
0.33													4×5.4	5.7				
0.47													4×5.4	6.8				
1.0													4×5.4	10				
2.2													4×5.4	15				
3.3													4×5.4	18				
4.7									4×5.4	22	4×5.4	20	4×5.4 5×5.4	24 25				
10							4×5.4	26	4×5.4 5×5.4	24 32	4×5.4 5×5.4	24 34	5×5.4 6.3×5.4	41 43			8×6.5	40
22			4×5.4	31	4×5.4 5×5.4	30 39	4×5.4 5×5.4	30 44	5×5.4 6.3×5.4	38 55	5×5.4 6.3×5.4	39 59	6.3×5.4	71	8×6.5	96	8×10.5	77
33	4×5.4	31	4×5.4 5×5.4	31 44	4×5.4 5×5.4	34 48	5×5.4 6.3×5.4	44 63	5×5.4 6.3×5.4	46 67	6.3×5.4	65	6.3×7.7	94	8×10.5	117	8×10.5	100
47	4×5.4	37	4×5.4 5×5.4	40 52	5×5.4 6.3×5.4	47 67	5×5.4 6.3×5.4	52 75	6.3×5.4	70	6.3×7.7	94	6.3×7.7 8×10.5	105 140	10×10.5	140	10×10.5	130
100	5×5.4	63	5×5.4 6.3×5.4	47 89	5×5.4 6.3×5.4	54 98	6.3×5.4	103	6.3×7.7	143	6.3×7.7 8×10.5	132 175	8×10.5 10×10.5	200 250				
220	6.3×5.4	110	6.3×5.4	91	6.3×7.7 8×6.5	173 250	6.3×7.7 8×10.5	162 280	8×10.5 8×10.5	230 310	8×10.5 10×10.5	200 310	10×10.5	320				
330			6.3×7.7	188	8×10.5	390	8×10.5	320	8×10.5 10×10.5	270 340	10×10.5	360						
470			8×10.5	380	8×10.5	390	8×10.5 10×10.5	350 420	10×10.5	380								
1000			8×10.5 10×10.5	370 700	10×10.5	580												
1500			10×10.5	750														

I~=Rated ripple current (mA) (85℃, 120Hz) I~=额定纹波电流（mA）（85℃，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