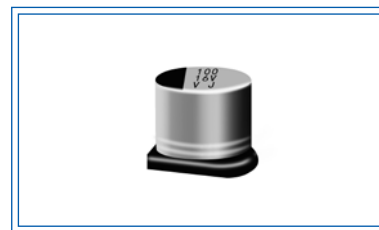


VJ 片式铝电解电容
SMD Aluminum Electrolytic Capacitors

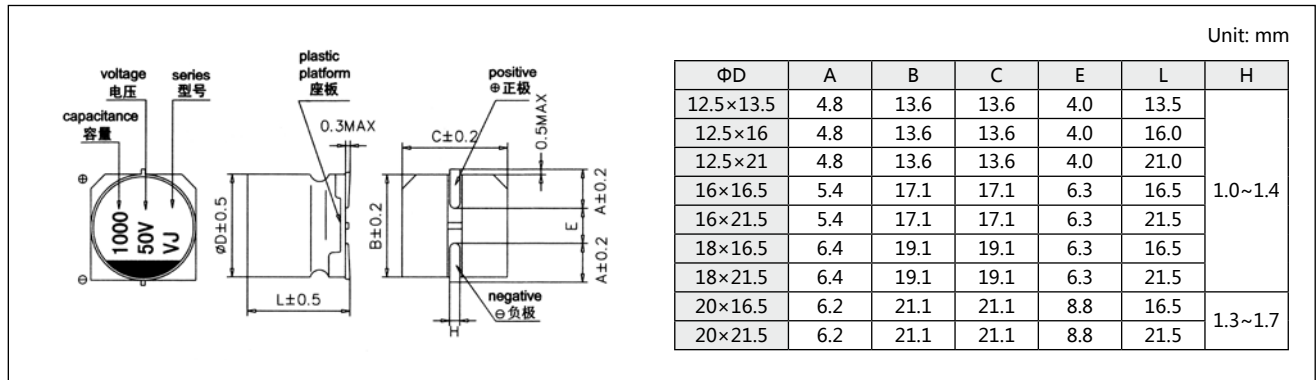
- 使用于电容器尺寸较大情况 (Φ12.5,Φ16,Φ18,Φ20)。
Higher Capacitance in larger case sizes (Φ12.5,Φ16,Φ18,Φ20).
- 适用于再流焊。Reflow soldering is available.
- 适用于高密度表面组装。Available for high density surface mounting.
- RoHS 指令已对应完毕。Adapted to the RoHS directive.



主要技术性能 Specifications

项目 Item	特性 Performance Characteristics																																	
工作温度范围 Operating Temperature Range	-55°C ~ +105°C (6.3~100V), -40°C ~ +105°C (160~450V)																																	
额定电压范围 Rated Voltage Range	6.3~450V																																	
标称容量范围 Nominal Capacitance Range	3.3~6800μF																																	
标称容量允许偏差 Capacitance Tolerance	±20%(+20°C, 120Hz)																																	
漏电流 Leakage Current	6.3~100V, $I \leq 0.03C_R U_R$ or 4(μA), 取较大者 (1分钟) Whichever is greater (at 20°C, after 1 minutes) 160~450V, $I = 0.04C_R U_R + 100(\mu A)_{max}$ (1分钟) (after 1 minutes) C_R : 标称容量 Nominal capacitance(μF), U_R : 额定电压 Rated voltage(V)																																	
损耗角正切值 (tgδ) Dissipation Factor (Max) (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th>$U_R(V)$</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160~250</th> <th>400~450</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.15</td> <td>0.20</td> </tr> </tbody> </table> <p>注: 超过 1000μF 的产品, 每增加 1000μF, 其值便增加 0.02。 For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.</p>	$U_R(V)$	6.3	10	16	25	35	50	63	100	160~250	400~450	tgδ	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	0.15	0.20											
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耐久性 Load Life	+105°C施加额定电压 5000 小时后, 电容器应满足以下要求: After 5000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement: <table border="1"> <tbody> <tr> <td>容量变化率 Capacitance change</td> <td>±20% 初始测量值以内 Within ±20% of the initial value</td> </tr> <tr> <td>损耗角正切 Dissipation factor</td> <td>≤ 200% 初始规定值 Not more than 200% of the initial specified value</td> </tr> <tr> <td>漏电流 Leakage current</td> <td>≤ 初始规定值 Not more than the initial specified value</td> </tr> </tbody> </table>	容量变化率 Capacitance change	±20% 初始测量值以内 Within ±20% 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																											
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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)	<table border="1"> <thead> <tr> <th>$U_R(V)$</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160~250</th> <th>400~450</th> </tr> </thead> <tbody> <tr> <td>Z-25°C / +20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>5</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> </tr> <tr> <td>Z-40°C / +20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>10</td> </tr> </tbody> </table>	$U_R(V)$	6.3	10	16	25	35	50	63	100	160~250	400~450	Z-25°C / +20°C	5	4	3	2	2	5	2	2	3	6	Z-40°C / +20°C	10	8	6	4	3	3	3	3	6	10
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Z-40°C / +20°C	10	8	6	4	3	3	3	3	6	10																								
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: <table border="1"> <tbody> <tr> <td>容量变化率 Capacitance change</td> <td>±10% 初始测量值以内 Within ±10% of the initial value</td> </tr> <tr> <td>损耗角正切 Dissipation factor</td> <td>≤ 初始规定值 Not more than the initial specified value</td> </tr> <tr> <td>漏电流 Leakage current</td> <td>≤ 初始规定值 Not more than the initial specified value</td> </tr> </tbody> </table>	容量变化率 Capacitance change	±10% 初始测量值以内 Within ±10% of the initial value	损耗角正切 Dissipation factor	≤ 初始规定值 Not more than the initial specified value	漏电流 Leakage current	≤ 初始规定值 Not more than the initial specified value																											
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外形图及尺寸 Diagram of Dimensions



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 Item Cap.(μF)	6.3		10		16		25		35		50	
	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)
220									12.5×13.5	280	12.5×16	320
330							12.5×13.5	320	12.5×16	360	● 16×16.5	440
470					12.5×13.5	360	12.5×16	400	● 16×16.5	490	△ 18×16.5	550
1000					● 16×16.5	630	△ 18×16.5	700	△ 18×16.5	750	18×21.5	820
2200	● 16×16.5	750	● 16×16.5	810	18×16.5	930	18×21.5	1050	20×21.5	1150		
3300	△ 18×16.5	930	△ 18×16.5	1000	18×21.5	1150						
4700	★ 18×21.5	1100	18×21.5	1200								
6800	20×21.5	1350	20×21.5	1450								

V Item Cap.(μF)	63		100		160		200		200		400		450	
	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)
3.3													12.5×13.5	40
4.7									12.5×13.5	65	12.5×16	50	12.5×16	50
10							12.5×13.5	80	12.5×16	105	16×16.5	85	16×16.5	85
22							12.5×16	105	● 16×16.5	180	18×21.5	130	18×21.5	130
33					12.5×13.5	95	● 16×16.5	220	△ 18×16.5	230	20×21.5	160	20×21.5	160
47			12.5×13.5	160	● 16×16.5	260	△ 18×16.5	270	★ 18×21.5	280				
68	12.5×13.5	175	12.5×16	205	△ 18×16.5	320	★ 18×21.5	330	20×21.5	340				
100	12.5×16	225	● 16×16.5	285	★ 16×21.5	380	20×21.5	410						
220	● 16×16.5	385	△ 18×16.5	440										
330	△ 18×16.5	490	20×21.5	500										
470	18×21.5	590												

●标记：还可以对应 Φ12.5×21 △标记：还可以对应 Φ16×21.5 ★标记：还可以对应 Φ20×16.5
I~ = 额定纹波电流, Rated ripple current (mA)(+105° C, 120Hz)

额定纹波电流的频率系数 Frequency coefficient of ripple current

V	Frequency(Hz)	50Hz	120Hz	300Hz	1kHz	≥ 10KHz
	Cap.(μF)					
6.3 ~ 100	< 68	0.70	1.00	1.35	1.57	2.00
	100~470	0.80	1.00	1.23	1.34	1.50
	1000~6800	0.85	1.00	1.10	1.13	1.15
160~450	3.3~100	0.80	1.00	1.25	1.40	1.60