

UL Low impedance & Long Life

低阻抗长寿命

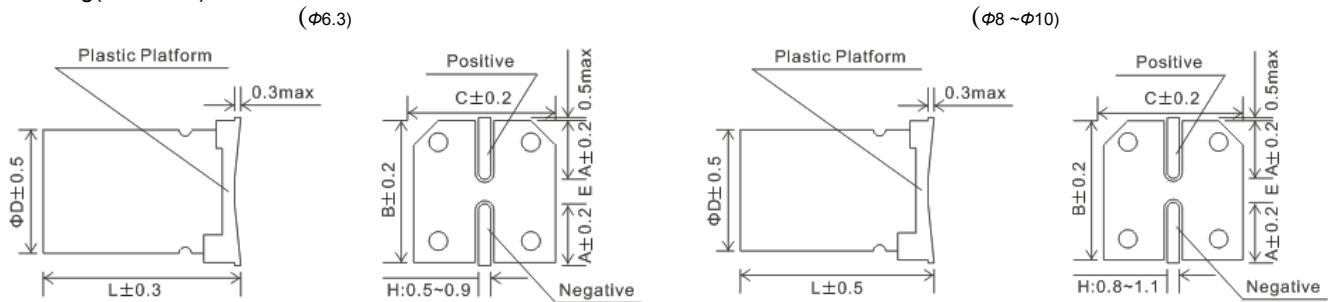


- 105°C, 5000 hours assured. Low Impedance
105°C, 低阻抗, 负荷寿命 5000 小时。
- Case diameter $\Phi 6.3\text{mm} \sim \Phi 10\text{mm}$.
产品直径 $\Phi 6.3\text{mm} \sim \Phi 10\text{mm}$ 。
- Available for high density surface mounting.
适用于高密度表面组装。
- High stability and reliability.
性能稳定, 可靠性高。

Specifications 特性表

Items 项目	Characteristics 主要特性																											
Rated Voltage Range 额定工作电压范围	6.3 ~ 25V _{dc}																											
Category Temperature Range 使用温度范围	-55 ~ +105°C																											
Capacitance Tolerance 静电容量允许偏差	±20% (M), at 20°C, 120Hz																											
Leakage Current 漏电流, 20°C 环境下施加工作电压 2 分钟后. (at 20°C, After 2 minutes)	I ≤ 0.01CV or 3uA, whichever is greater 漏电流 ≤ 0.01CV or 3uA, 取较大值 Where, I : Max. leakage current (漏电流, μA), C : Nominal capacitance (静电容量, μF), V : Rated voltage (额定电压 V)																											
Dissipation Factor (Tanδ, at 20°C, 120Hz) 损耗角正切值 (测试条件为 20°C, 120Hz)	<table border="1"> <tr> <td>Rated voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Tanδ (Max.) 最大损耗角正切</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> <td>0.14</td> </tr> </table> <p>When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. 静电容量大于 1000uF, 每增加 1000uF, 损耗角正切增加 0.02</p>	Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100	Tanδ (Max.) 最大损耗角正切	0.30	0.24	0.20	0.18	0.16	0.14	0.14	0.14									
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Low Temperature Characteristics (Max. Impedance Ratio, 120Hz) 低温特性最大阻抗比	<table border="1"> <tr> <td>Rated voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </table>	Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100	Z(-25°C)/Z(20°C)	5	4	3	2	2	2	2	2	Z(-40°C)/Z(20°C)	10	8	6	4	4	4	4	4
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Z(-40°C)/Z(20°C)	10	8	6	4	4	4	4	4																				
Endurance 耐久性	<p>The following specification shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the ripple current is applied for the specified period of time at 105°C. 在 105°C 环境中, 不超过额定电压的范围内叠加额定纹波电流, 连续加载规定时间的额定电压后, 待温度恢复到 20°C 进行测量时, 应满足以下要求。</p> <table border="1"> <tr> <td>Test Time 测试时间</td> <td>5,000Hrs (Φ6.3, 3000Hrs)</td> </tr> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within ±30% initial value 初始值的 ±30% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切</td> <td>≤300% of specified value 不大于规范值的 300%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>≤The initial specified value 不大于规范值</td> </tr> </table>	Test Time 测试时间	5,000Hrs (Φ6.3, 3000Hrs)	Capacitance Change 静电容量变化率	Within ±30% initial value 初始值的 ±30% 以内	Dissipation Factor 损耗角正切	≤300% of specified value 不大于规范值的 300%	Leakage Current 漏电流	≤The initial specified value 不大于规范值																			
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Shelf Life 高温贮存	<p>The above specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of IEC 60384-4. 在 105°C 环境中, 无负荷放置 1,000 小时后待温度恢复到 20°C, 进行试验前处理(IEC 60384-4 4.1 项)后进行测量时, 应满足以下要求。</p> <table border="1"> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within ±30% initial value 初始值的 ±30% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>≤300% of specified value 不大于规范值的 300%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>≤200% of specified value 不大于规范值的 200%</td> </tr> </table>	Capacitance Change 静电容量变化率	Within ±30% initial value 初始值的 ±30% 以内	Dissipation Factor 损耗角正切值	≤300% of specified value 不大于规范值的 300%	Leakage Current 漏电流	≤200% of specified value 不大于规范值的 200%																					
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Drawing(Unit: mm) 外形图



Case Size 产品尺寸	A	B	C	E	L	H
Φ6.3 x 7.7	2.4	6.6	6.6	2.2	7.7	0.5~0.9
Φ8 x 10.2	2.9	8.3	8.3	3.1	10.2	0.8~1.1
Φ10 x 10.2	3.2	10.3	10.3	4.5	10.2	0.8~1.1

Rated ripple current multipliers(Unit: mm) 额定纹波修正系数

Frequency 频率 (Hz)	60Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient 系数	0.70	1.00	1.17	1.36	1.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

铝电解电容器由于在纹波电流叠加时自我发热、温度上升而老化, 每升温 5°C 寿命减少一半。要想保持长寿命请在使用过程中降低纹波电流。

UL Series

■ Standard ratings 标准品一览表

WV μF	6.3		10		16		25	
	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.
100							6x7.7	91
220	6.3x7.7	105	6.3x7.7	105	8x10.2(6.3x7.7)	150(105)	8x10.2	175
330	6.3x7.7	105	8x10.2	196	8x10.2	195	10x10.2(8x10.2)	240(220)
470	8x10.2	210	8x10.2	210	10x10.2(8x10.2)	295(230)	10x10.2	280
1000	10x10.2(8x10.2)	300(230)	10x10.2	315				
1500	10x10.2	315						

WV μF	35		50		63		100	
	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.
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470	8x10.2	210	8x10.2	210	10x10.2(8x10.2)	295(230)	10x10.2	280
1000	10x10.2(8x10.2)	300(230)	10x10.2	315				
1500	10x10.2	315						

Note1: Case size ΦD x L(mm), ripple current (mA, rms) at 105°C, 120Hz. 尺寸 ΦD x L(mm), 纹波电流於 105°C, 120Hz

Note2: Produce custom product too, which are not found in these tables. 客户定制品不在标准品一览表内