

US Standard 宽温标准品

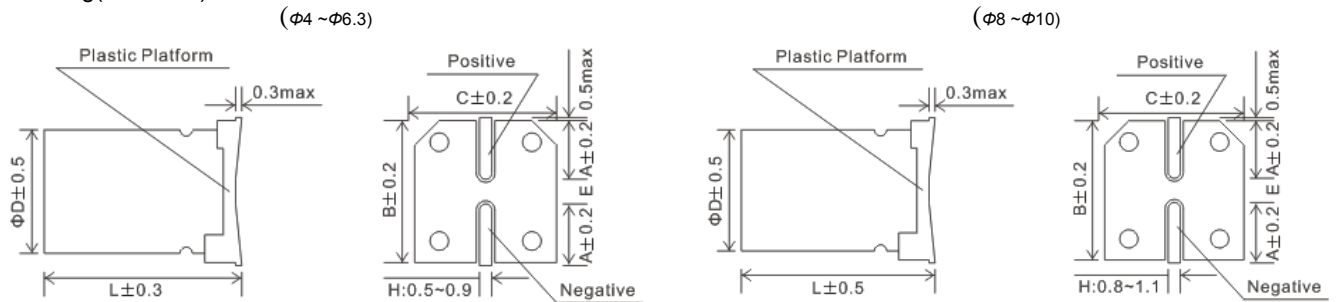


- 85°C, 2000 hours assured.
85°C, 负荷寿命 2000 小时。
- Case diameter $\Phi 4\text{mm} \sim \Phi 10\text{mm}$.
产品直径 $\Phi 4\text{mm} \sim \Phi 10\text{mm}$.
- Available for high density surface mounting.
适用于高密度表面组装。
- High stability and reliability.
性能稳定, 可靠性高。

Specifications 特性表

Items 项目	Characteristics 主要特性																														
Rated Voltage Range 额定工作电压范围	4 ~ 100V _{dc}																														
Category Temperature Range 使用温度范围	-55 ~ +85°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 3μA, whichever is greater 漏电流 ≤ 0.01CV or 3μA, 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>4</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>0.35</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 1000μF, 每增加 1000μF, 损耗角正切增加 0.02</p>	Rated voltage (V) 额定工作电压	4	6.3	10	16	25	35	50	63	100	Tanδ (Max.) 最大损耗角正切	0.35	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>4</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>7</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>15</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> </tr> </table>	Rated voltage (V) 额定工作电压	4	6.3	10	16	25	35	50	63	100	Z(-25°C)/Z(20°C)	7	5	4	3	2	2	2	2	2	Z(-40°C)/Z(20°C)	15	10	8	6	4	3	3	3	3
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Z(-40°C)/Z(20°C)	15	10	8	6	4	3	3	3	3																						
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 85°C. 在 85°C 环境中, 不超过额定电压的范围下叠加额定纹波电流, 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>2,000Hrs</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>≤200% of specified value 不大于规范值的 200%</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	2,000Hrs	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	≤200% of specified value 不大于规范值的 200%	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 85°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 85°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>≤200% of specified value 不大于规范值的 200%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>≤300% of specified value 不大于规范值的 300%</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	≤200% of specified value 不大于规范值的 200%	Leakage Current 漏电流	≤300% of specified value 不大于规范值的 300%																								
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Drawing(Unit: mm) 外形图



Case Size 产品尺寸	φ4 x 5.4	φ5 x 5.4	φ6.3 x 5.4	φ6.3 x 7.7	φ8 x 6.5	φ8 x 10.2	φ10 x 10.2
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	1.3	2.2	2.2	3.1	3.1	4.5
L	5.4	5.4	5.4	7.7(±0.3)	6.5	10.3	10.3
H	0.5 ~ 0.9					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	0.1~47μF: 0.80	1.00	1.20	1.30	1.50
	100~1500μF: 0.80	1.00	1.10	1.15	1.20

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。

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, Please contact us immediately for technical assistance before purchase.

注: 以上所提供的设计及特性参数仅供参考, 任何修改不作预先通知, 如有使用上任何疑问, 请在采购前与我们联系, 以便提供技术上的协助。

US Series

■ Standard ratings 标准品一览表

μF \ WV	4		6.3		10		16		25		35		50		63		100		
	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.			
0.1													4x5.4	1.3	4x5.4	1.3			
0.22													4x5.4	3.0	4x5.4	3.0			
0.33													4x5.4	4.0	4x5.4	4.0			
0.47													4x5.4	5.0	4x5.4	5.0			
1.0													4x5.4	8.0	4x5.4	8.0			
2.2													4x5.4	12	4x5.4	12			
3.3												4x5.4	15	4x5.4	15	5x5.4	17	6.3x7.7	28
4.7									4x5.4	16	4x5.4	18	4x5.4	18	5x5.4	20	6.3x7.7	35	
10							4x5.4	24	4x5.4	24	5x5.4	24	5x5.4	30	5x5.4	32	6.3x7.7	50	
22			4x5.4	28	4x5.4	26	4x5.4	26	5x5.4	40	5x5.4	40	6.3x5.4	47	6.3x5.4	60	8x10.2	90	
33	4x5.4	25	4x5.4	30	5x5.4	30	5x5.4	37	5x5.4	47	6.3x5.4	54	6.3x7.7	70	8x10.2	110	10x10.2	120	
47	4x5.4	30	4x5.4	33	5x5.4	44	5x5.4	44	6.3x5.4	60	6.3x7.7	70	6.3x7.7	85	8x10.2	130			
68															10x10.2	170			
100	5x5.4	50	5x5.4	55	6.3x5.4	70	6.3x5.4	70	6.3x7.7	120	6.3x7.7	120	8x10.2	120					
150	6.3x5.4	70	6.3x5.4	71	6.3x5.4	79	6.3x7.7	116	8x10.2	210	8x10.2	210	8x10.2	230					
220	6.3x5.4	80	6.3x5.4	88	6.3x7.7	130	6.3x7.7	130	8x10.2	260	8x10.2	260	10x10.2	320					
330	6.3x7.7	135	6.3x7.7	135	8x10.2	270	8x10.2	270	10x10.2	300	10x10.2	360							
470	6.3x7.7	150	8x10.2	280	8x10.2	280	8x10.2	280	10x10.2	400									
680	8x10.2	260	8x10.2	290	10x10.2	370	10x10.2	380											
1000	8x10.2	320	10x10.2	430	10x10.2	430													
1500	10x10.2	347	10x10.2	480															

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