

SS Series

SMALL-SIZED

小型品

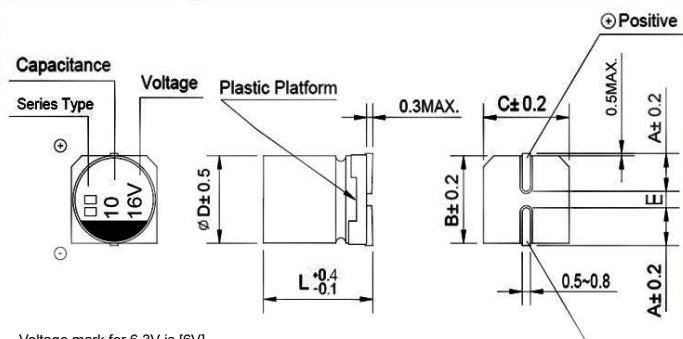
- Height 4.5mm, Suitable for surface high density PCB design
产品高度 4.5mm, 適用於表面高密度 PCB 设计
- Operating with general temperature range -40 ~ +85°C
適用於 -40 ~ +85°C 的常規溫度範圍
- Load life of 2000 hours
負荷壽命 2000 小時
- Comply with the RoHS directive
符合 RoHS 指令



□ SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性																															
Operation Temperature Range 使用溫度範圍	-40 ~ +85°C																															
Voltage Range 額定工作電壓範圍	6.3 ~ 50V																															
Capacitance Range 靜電容量範圍	1.0 ~ 100μF																															
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C																															
Leakage Current 漏電流	Leakage current ≤ 0.01CV or 3μA, whichever is greater (after 2 minutes application of rated voltage) 漏電流 ≤ 0.01CV 或 3μA, 取較大值 (施加額定工作電壓 2 分鐘後)																															
Dissipation Factor (tan δ) 損耗角正切	Measurement frequency 測試頻率: 120Hz, Temperature 溫度: 20°C <table border="1"> <tr> <td>Rated Voltage (V) 額定工作電壓</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ (max.) 最大損耗角正切</td> <td>0.35</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> </tr> </table>								Rated Voltage (V) 額定工作電壓	4	6.3	10	16	25	35	50	tan δ (max.) 最大損耗角正切	0.35	0.30	0.24	0.20	0.16	0.14	0.14								
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Stability at Low Temperature 低溫特性	Measurement frequency 測試頻率: 120Hz <table border="1"> <tr> <td>Rated Voltage (V) 額定工作電壓</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Impedance Ratio 阻抗比 Z(-25°C) / Z(20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT/Z20 (max.)</td> <td>15</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>								Rated Voltage (V) 額定工作電壓	4	6.3	10	16	25	35	50	Impedance Ratio 阻抗比 Z(-25°C) / Z(20°C)	7	4	3	2	2	2	2	ZT/Z20 (max.)	15	8	6	4	4	3	3
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Load Life 高溫負荷特性	After 2000 hrs. application of the rated voltage at 85°C, they meet the characteristics listed below. 在 85°C 環境中施加額定工作電壓 2000 小時後，電容器的特性符合下表的要求。 <table border="1"> <tr> <td>Capacitance Change 靜電容量變化率</td> <td>Within ±25% of initial value (Within ±30% of initial value for 6.3~10V) 初始值的±25% 以內 (6.3~10V 為±30% 以內)</td> </tr> <tr> <td>Dissipation Factor 損耗角正切</td> <td>300% or less of initial specified value 不大於規範值的 300%</td> </tr> <tr> <td>Leakage Current 漏電流</td> <td>initial specified value or less 不大於規範值</td> </tr> </table>								Capacitance Change 靜電容量變化率	Within ±25% of initial value (Within ±30% of initial value for 6.3~10V) 初始值的±25% 以內 (6.3~10V 為±30% 以內)	Dissipation Factor 損耗角正切	300% or less of initial specified value 不大於規範值的 300%	Leakage Current 漏電流	initial specified value or less 不大於規範值																		
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Shelf Life 高溫貯存特性	After leaving capacitors under no load at 85°C for 1000 hours, they meet the specified value for load life characteristics listed above. 在 85°C 環境中無負荷放置 1000 小時後，電容器的特性符合高溫負荷特性中所列的規範值。																															
Resistance to Soldering Heat 耐焊接熱特性	After reflow soldering and restored at room temperature, they meet the characteristics listed below. 經過回流焊並冷卻至室溫後，電容器的特性符合下表的要求。 <table border="1"> <tr> <td>Capacitance Change 靜電容量變化率</td> <td>Within ±10% of initial value 初始值的±10% 以內</td> </tr> <tr> <td>Dissipation Factor 損耗角正切</td> <td>initial specified value or less 不大於規範值</td> </tr> <tr> <td>Leakage Current 漏電流</td> <td>initial specified value or less 不大於規範值</td> </tr> </table>								Capacitance Change 靜電容量變化率	Within ±10% of initial value 初始值的±10% 以內	Dissipation Factor 損耗角正切	initial specified value or less 不大於規範值	Leakage Current 漏電流	initial specified value or less 不大於規範值																		
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Marking 標示	Black print on the case top. 鋁殼頂部黑字印刷。																															

□ DRAWING (Unit: mm) 外形圖



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

注: 以上所提供的設計及特性參數僅供參考作用，任何修改不作預先通知。如果在使用上有疑問，請在採購前與我們聯絡，以便提供技術上的協助。

ST

SS Series

□ DIMENSIONS (Unit: mm) 尺寸表

$\varnothing D \times L$	4 x 4.5	5 x 4.5	6.3 x 4.5
A	1.9	2.2	2.6
B	4.3	5.3	6.6
C	4.3	5.3	6.6
E ± 0.2	1.0	1.3	2.2
L	4.5	4.5	4.5

□ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

μF WV Code 代碼	4		6.3		10		16		25		35		50	
	0G	0J	1A	1C	1E	1V	1H							
1.0 1R0													4x4.5	8.5
2.2 2R2													4x4.5	13
3.3 3R3													4x4.5	17
4.7 4R7									4x4.5	16	4x4.5	18	5x4.5	20
10 100						4x4.5	23	5x4.5	27	5x4.5	29	6.3x4.5	33	
22 220			4x4.5	28	5x4.5	33	5x4.5	36	6.3x4.5	42	6.3x4.5	46		
33 330	4x4.5	28	5x4.5	36	5x4.5	41	6.3x4.5	49	6.3x4.5	52			Case size 尺寸	Ripple current 紋波電流
47 470	5x4.5	33	5x4.5	45	6.3x4.5	51	6.3x4.5	58						
100 101	5x4.5	56	6.3x4.5	55		6.3x4.5	69							
220 221	6.3x4.5	95	6.3x4.5	98										

• Case size $\varnothing D \times L$ (mm), ripple current (mA rms) at 85°C 120Hz

• 尺寸 $\varnothing D \times L$ (mm), 紋波電流(mA rms)於 85°C 120Hz

□ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT 紋波電流頻率補償系數

Frequency 頻率	50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient 系數	0.70	1.00	1.17	1.36	1.50

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