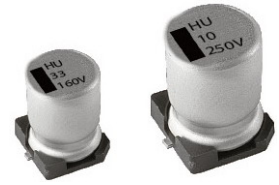
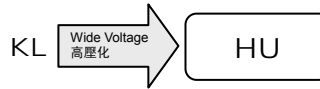


# HU Series

## MID-TO-HIGH VOLTAGE

### 中高壓品

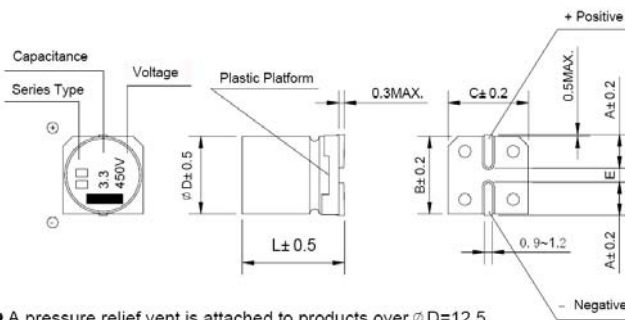
- Operating with wide temperature range -40 ~ +105°C  
適用於 -40 ~ +105°C 的寬溫範圍
- Load life of 5000 hours  
負荷壽命 5000 小時
- Comply with the RoHS directive  
符合 RoHS 指令



### SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性											
Operation Temperature Range 使用溫度範圍	-40 ~ +105°C											
Voltage Range 額定工作電壓範圍	160 ~ 450V											
Capacitance Range 靜電容量範圍	3.3 ~ 47μF											
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C											
Leakage Current 漏電流	Leakage current ≦ 0.04CV or 100μA, whichever is greater (after 2 minutes application of rated voltage) 漏電流 ≦ 0.04CV 或 100μA, 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>160 ~ 250</td> <td>400, 500</td> </tr> <tr> <td>tan δ (max.) 最大損耗角正切</td> <td>0.15</td> <td>0.20</td> </tr> </table>	Rated Voltage (V) 額定工作電壓	160 ~ 250	400, 500	tan δ (max.) 最大損耗角正切	0.15	0.20					
Rated Voltage (V) 額定工作電壓	160 ~ 250	400, 500										
tan δ (max.) 最大損耗角正切	0.15	0.20										
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>160 ~ 250</td> <td>400, 500</td> </tr> <tr> <td>Impedance Ratio 阻抗比</td> <td>Z(-25°C) / Z(20°C)</td> <td>3</td> <td>6</td> </tr> <tr> <td>ZT/Z20 (max.)</td> <td>Z(-40°C) / Z(20°C)</td> <td>6</td> <td>10</td> </tr> </table>	Rated Voltage (V) 額定工作電壓	160 ~ 250	400, 500	Impedance Ratio 阻抗比	Z(-25°C) / Z(20°C)	3	6	ZT/Z20 (max.)	Z(-40°C) / Z(20°C)	6	10
	Rated Voltage (V) 額定工作電壓	160 ~ 250	400, 500									
Impedance Ratio 阻抗比	Z(-25°C) / Z(20°C)	3	6									
ZT/Z20 (max.)	Z(-40°C) / Z(20°C)	6	10									
Load Life 高溫負荷特性	After 5000 hours application of the rated voltage at 105°C, they meet the characteristics listed below. 在 105°C 環境中施加額定工作電壓 5000 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 ±20% of initial value 初始值的±20%以內</td> </tr> <tr> <td>Dissipation Factor 損耗角正切</td> <td>200% or less of initial specified value 不大於規範值的 200%</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 ±20% of initial value 初始值的±20%以內	Dissipation Factor 損耗角正切	200% or less of initial specified value 不大於規範值的 200%	Leakage Current 漏電流	initial specified value or less 不大於規範值					
	Capacitance Change 靜電容量變化率	Within ±20% of initial value 初始值的±20%以內										
Dissipation Factor 損耗角正切	200% or less of initial specified value 不大於規範值的 200%											
Leakage Current 漏電流	initial specified value or less 不大於規範值											
Shelf Life 高溫貯存特性	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above. 在 105°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定值。											
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					
	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											
Marking 標示	Black print on the case top. 鋁殼頂部黑字印刷。											

### DRAWING (Unit: mm) 外形圖



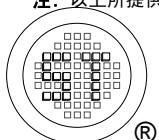
- A pressure relief vent is attached to products over ØD=12.5  
ØD=12.5 以上產品有緩壓防爆閥

### DIMENSIONS (Unit: mm) 尺寸表

ØD x L	12.5 x 13.5	12.5 x 16	16 x 16.5
A	4.7	4.7	5.5
B	13.0	13.0	17.0
C	13.0	13.0	17.0
E ± 0.2	4.6	4.6	6.7
L	13.5	16.0	16.5

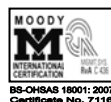
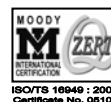
NOTE: All designs and specifications are for reference only and are subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.

注: 以上所提供的設計及特性參數僅供參考, 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繫, 以便提供技術上的協助。



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949:2002  
Certificate No. 05103

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2000  
Certificate No. 050608

BS-OHSAS 18001:2007  
Certificate No. 7116

IECQ QC 080000  
Certificate No. PC18P/181

# HU Series

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

μF	WV Code 代碼	160		200		250		400		450	
		2C		2D		2E		2G		2W	
3.3	3R3									12.5 × 13.5	40
4.7	4R7					12.5 × 13.5	65	12.5 × 16	50	12.5 × 16	50
10	100			12.5 × 13.5	80	12.5 × 16	105	16 × 16.5	85	16 × 16.5	85
22	220	12.5 × 13.5	85	12.5 × 16	110	16 × 16.5	180				
33	330	12.5 × 13.5	95	16 × 16.5	220					Case size 尺寸	Ripple current 紋波電流
47	470	16 × 16.5	260								

• Case size  $\varnothing D \times L$ (mm), ripple current (mA rms) at 105°C 120Hz • 尺寸 $\varnothing D \times L$ (mm), 紋波電流(mA rms)於 105°C 120Hz

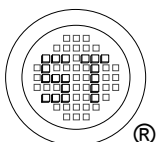
## □ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT 紋波電流頻率補償系數

Frequency 頻率	50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient 系數	0.80	1.00	1.25	1.40	1.60

- Taping specifications are given in page 11. 編帶標準請參閱第 11 頁。
- Please refer to page 12 for the minimum package quantity. 最小包裝數量請參閱第 12 頁。

**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，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繫，以便提供技術上的協助。



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

