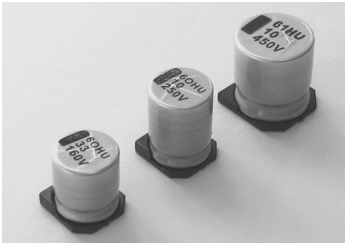


HU Series

MID-TO-HIGH VOLTAGE 中高压品

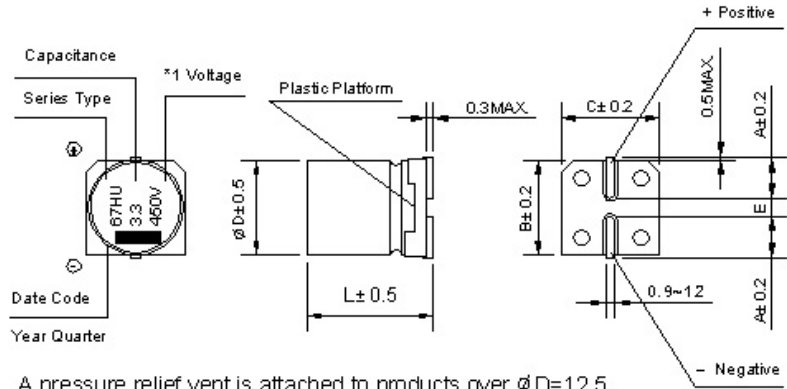
- Load life of 5000 hours with temperature up to +105℃
在温度高至+105℃环境下，负荷寿命可达5000小时
- Case size from Φ12.5×13.5 to Φ16×16.5
体积范围：从Φ12.5×13.5 到 Φ16×16.5
- Lead-free reflow soldering is available subject to customer's request
无铅回流焊接可按照客户的要求



主要技术性能 Specification

项目 Item	特性 Performance Characteristics					
使用温度范围 Operating temperature rang	-40℃ ~+ 105℃					
额定电压范围 Rated voltage range	160 ~ 450 V					
静电容量范围 Capacitance Range	3.3~68 μF					
静电容量允许偏差Capacitance Tolerance	±20% at 120 Hz, 20					
漏电流 Leakage current	After 2 minutes application of rated voltage,leakage current is not more than 0.04CV+100(μA) 施加额定工作电压2分钟，LC≤0.04CV+100 (μA)					
损耗角正切值 Tan δ	Measurement frequency 测试频率: 120Hz, Temperature 温度: 20℃					
	Rated voltage(V.DC) 额定工作电压	160	200	250	400	450
	Tan δ 损耗角正切 (max)	0.15	0.15	0.15	0.20	0.20
低温特性 Stability at Low Temperature	Measurement frequency 测试频率: 120Hz					
	Rated voltage(V.DC) 额定工作电压	160	200	250	400	450
	Impedance ratio 阻抗比 XT/Z20(max)	Z(-25℃)/Z(-20℃) Z(-40℃)/Z(-20℃)	3 6	3 6	3 6	6 10
高温负荷特性 Load Life	After 5000 hours application of rated voltage at 105℃,capacitions meet the characteristics requirements listed at right. 在105℃环境中施加额定工作电压5000小时后，电容器的特性符合右表的要求。		Capacitance Change 静电容量变化率		Within ±20% of the initial value 初始值±20%以内	
			Tan δ 损耗角正切		200% or less of the initial specified value 不大于规范值的200%	
			Leakage Current 漏电流		Initial specified value or less 不大于规范值	
高温储存特性 Shelf Life	After leaving capacitors under no load at 105℃ for 1000 hours, they meet the specified value for load life characteristics listed above. 在105℃环境中无负荷放置1000小时后，电容器的特性符合高温负荷特性中所列的规定值。					
耐焊接热特性 Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics requirements listed at right. 经过回流焊并冷却至室温后，电容器的特性符合右表的要求。		Capacitance Change 静电容量变化率		Within ±10% of the initial value 初始值±10%以内	
			Tan δ 损耗角正切		Initial specified value or less 不大于规范值	
			Leakage Current 漏电流		Initial specified value or less 不大于规范值	
适用标准 Applicable Standards	IEC-60384-18					

外形图及尺寸图 Case size table



单位Unit: mm

DXL	Φ12.5X13.5/16	Φ16X16.5/21.5
A	4.7	5.5
B	13.0	17.0
C	13.0	17.0
E±0.2	4.6	6.7
L	13.5 / 16	16.5 / 21.5

A pressure relief vent is attached to products over ØD=12.5

Re: Date code and series type _ 1st digit for Year; 2nd digit for Quarter, 4 quarter codes in one year are 1, 4, 7, 0; 3rd & 4th characters for Series.

HU Series

■ 规格尺寸及最大允许纹波电流 Standard size Maximum permissible ripple current

WV电压 容量 Cap(uF)		160		220		250		400		450	
		2C		2D		2E		2G		2W	
3.5	3R3										
4.7	4R7					12.5×13.5	65	12.5×16	50	12.5×13.5	40
10	100			12.5×13.5	80	12.5×16	105	16×16.5	85	12.5×16	50
22	220	12.5×13.5	85	12.5×16	110	16×16.5	180			16×16.5	85
33	330	12.5×13.5	95	16×16.5	220	16×21.5	230				
47	470	16×16.5	280	16×21.5	270						Ripples Current
68	680	16×21.5	320							CaseSize	

Ripple Current (mA ms) at 105℃ 120Hz

■ 纹波电流频率补偿系数 Frequency Coefficient Factor of Rated Ripple Current

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz~
Coefficient	0.80	1.00	1.25	1.40	1.60

HU Parts List

Size	Part No.	R.V. (V.DC)	Cap. (μF)	Tangent of Loss Angle (tan δ)	TLeakage Current (μA)	Ripple Current (mA ms.) (120Hz, 105℃)
D × L				max.	max.	max.
12.5×13.5	160HU220MLC12.5×13.5EC	160	22	0.15	241	85
12.5×13.5	160HU330MLC12.5×13.5EC	160	33	0.15	311	95
16×16.5	160HU470MLC16×16.5EC	160	47	0.15	401	260
16×21.5	160HU680MLC16×21.5EC	160	68	0.15	535	320
12.5×13.5	200HU100MLC12.5×13.5EC	200	10	0.15	180	80
12.5×16	200HU220MLC12.5×16EC	200	22	0.15	276	110
16×16.5	200HU330MLC16×16.5EC	200	33	0.15	364	220
16×21.5	200HU470MLC16×21.5EC	200	47	0.15	476	270
12.5×13.5	250HU100MLC12.5×13.5EC	250	4.7	0.15	147	65
12.5×16	250HU220MLC12.5×16EC	250	10	0.15	200	105
16×16.5	250HU330MLC16×16.5EC	250	22	0.15	320	180
16×21.5	250HU470MLC16×21.5EC	250	33	0.15	430	230
12.5×16	400HU4R7MLC12.5×16EC	400	4.7	0.20	175	50
16×16.5	400HU100MLC16×16.5EC	400	10	0.20	260	85
12.5×13.5	450HU3R3MLC12.5×13.5EC	450	3.3	0.20	159	40
12.5×16	450HU4R7MLC12.5×16EC	450	4.7	0.20	185	50
16×16.5	450HU100MLC16×16.5EC	450	10	0.20	280	85