

## VL Series

## Features

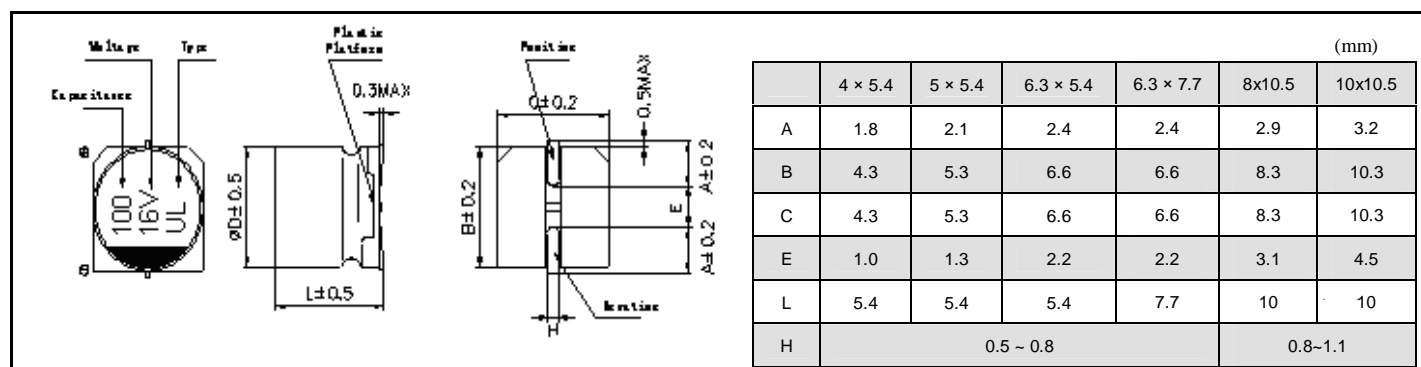
- ◆ Chip Type Aluminum Electrolytic Capacitors, 5000 hours at 105°C.
- ◆ Reflow soldering is available.
- ◆ available for high density surface mounting.
- ◆ (-55 ~ +105°C) Operating over wide temperature range.
- ◆ RoHS Compliant.



## Specifications

Item	Performance Characteristics						
Temperature Range	-55℃ ~+105℃						
Rated Voltage Range	6.3V ~ 50Vdc						
Capacitance Range	1.0 ~ 1000μF						
Capacitance Tolerance	±20%（20℃，120Hz）						
Leakage Current （+20℃,max.）	I≤0.01C <sub>R</sub> U <sub>R</sub> or 3(μA) Whichever is greater(at 20℃, after 2 minutes) C <sub>R</sub> : Nominal Capacitance (μF)      U <sub>R</sub> : Rated voltages (V)						
Dissipation Factor (Max) （tgδ）20℃, 120Hz	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	tgδ	0.32	0.24	0.20	0.16	0.13	0.12
Endurance	After 5000 hours application of rated voltage at 105℃, the capacitor shall meet the following requirement:						
	Capacitance Change		Within ±30% of the initial value				
	Dissipation Factor		Not more than 300% of the initial specified value				
	Leakage Current		Not more than the initial specified value				
Shelf Life	After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above						
Low Temperature Stability Impedance Ratio (120Hz)	U <sub>R</sub> (V)	6.3	10	16	25	35	50
	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2
	Z(-55℃)/Z(+20℃)	10	7	5	3	3	3
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.						
	Capacitance Change		Within ±10% of the initial value				
	Dissipation Factor		Not more than the initial specified value				
	Leakage Current		Not more than the initial specified value				

## Diagram of Dimensions



## Nominal capacitance, rated voltage, rated ripple current and case size table

Voltage	6.3		10		16		25		35		50	
Cap(μF)	Case Size	I~mA	Case Size	I~mA	Case Size	I~mA	Case Size	I~mA	Case Size	I~mA	Case Size	I~mA
1.0											4×5.4	6.2
2.2											4×5.4	11
3.3											4×5.4	14
4.7									4×5.4	15	5×5.4	19
10					4×5.4	18	5×5.4	25	5×5.4	25	6.3×5.4	30
22			5×5.4	30	5×5.4	30	6.3×5.4	42	6.3×5.4	42	6.3×7.7	49
33	5×5.4	35	5×5.4	35	6.3×5.4	48	6.3×5.4	48	6.3×7.7	57	8×10.5	77
47	5×5.4	36	6.3×5.4	50	6.3×5.4	50	6.3×7.7	63	8×10.5	92	8×10.5	92
100	6.3×5.4	60	6.3×7.7	81	6.3×7.7	81	8×10.5	116	10×10.5	151	10×10.5	151
220	6.3×7.7	101	8×10.5	141	10×10.5	216	10×10.5	216	10×10.5	216		
330	8×10.5	160	10×10.5	238	10×10.5	238	10×10.5	238				
470	10×10.5	254	10×10.5	254	10×10.5	254						
1000	10×10.5	313										

Max Allowable Ripple Current (mA, rms) at 105°C 120Hz, Case Size  $\Phi D \times L$ (mm).

Above size is the standard size for our product. If you need special size please contact our sales offices .

## Frequency coefficient of ripple current

Frequency	50Hz	120Hz	300Hz	1KHz	≥ 10KHz
Coefficient	0.70	1.00	1.17	1.36	1.50