

# VD Series

## Features

- ◆ Low impedance, 2000 to 5000 hours at 105°C .
- ◆ Chip Type Aluminum Electrolytic Capacitors .
- ◆ Reflow soldering is available .
- ◆ available for high density surface mounting .
- ◆ (-55°C ~ +105°C) Operating over wide temperature range .
- ◆ RoHS Compliant .

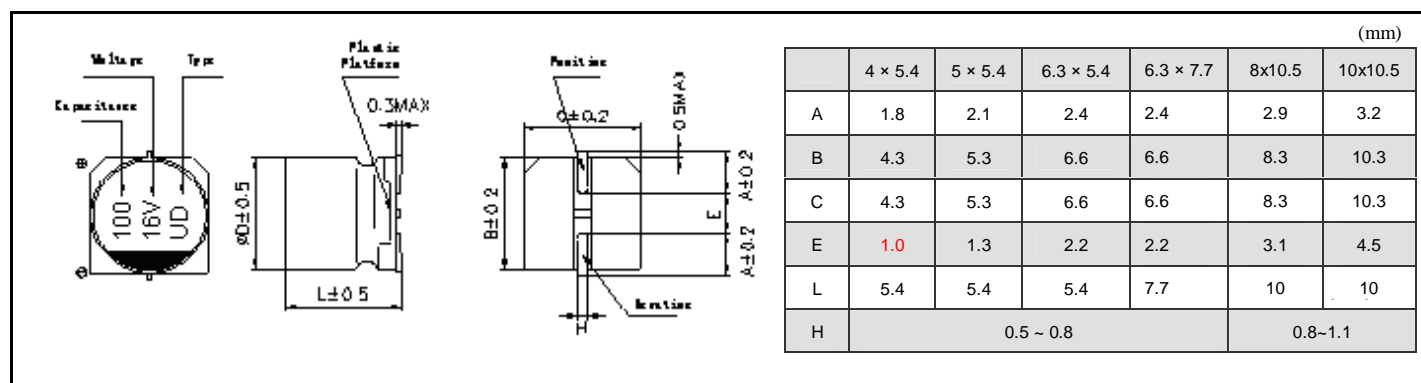


## Specifications

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Item	Performance Characteristics						
Temperature Range	-55℃ ~+105℃						
Rated Voltage Range	6.3V ~ 50Vdc						
Capacitance Range	1 ~ 1500μF						
Capacitance Tolerance	±20%（20℃，120Hz）						
Leakage Current （+20℃,max.）	I≤0.01C <sub>R</sub> V <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	0.28	0.24	0.20	0.16	0.14	0.12
Endurance	After 5000 hours (2000 hours for φD = 4, 5 and 6.3) . 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℃)	3	2	2	2	2	2
	Z(-55℃)/Z(+20℃)	5	4	4	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	Impedance Ω	I~ mA	Case Size	Impedance Ω	I~ mA	Case Size	Impedance Ω	I~ mA	Case Size	Impedance Ω	I~ mA	Case Size	Impedance Ω	I~ mA	Case Size	Impedance Ω	I~ mA
1.0																4×5.4	5.00	30
2.2																4×5.4	5.00	30
3.3																4×5.4	5.00	30
4.7													4×5.4	1.8	80	5×5.4	1.52	85
10										4×5.4	1.80	80	5×5.4	0.76	150	6.3×5.4	0.88	165
22				4×5.4	1.80	80	5×5.4	0.76	80	5×5.4	0.76	80	5×5.4	0.76	180	6.3×5.4	0.88	165
33	5×5.4	0.76	150	5×5.4	0.76	150	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×7.7	0.68	185
47	5×5.4	0.76	150	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×7.7	0.68	185
68	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×7.7	0.34	280	8x10.5	0.34	300
100	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×7.7	0.34	280	8x10.5	0.17	300	8x10.5	0.34	300
220	6.3×5.4	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8x10.5	0.17	450	8x10.5	0.17	450	10x10.5	0.18	670
330	6.3×7.7	0.34	280	8x10.5	0.17	450	8x10.5	0.17	450	8x10.5	0.17	450	10x10.5	0.09	670			
470	8x10.5	0.17	450	8x10.5	0.17	450	8x10.5	0.17	450	10x10.5	0.09	670						
680	8x10.5	0.17	450	10x10.5	0.09	670	10x10.5	0.09	670									
1000	8x10.5	0.17	450	10x10.5	0.09	670												
1500	10x10.5	0.09	670															

Max Allowable Ripple Current (mA,rms) at 105℃ 100KHz, Max Impedance(Ω) at 20℃ 100 KHz,Case Size ΦD×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	0.35	0.50	0.64	0.83	1.00