

## VTD Series

- Lifetime: 105°C, 2000Hr ● Reflow soldering is available
- Available for high density surface mounting ● High stability and reliability

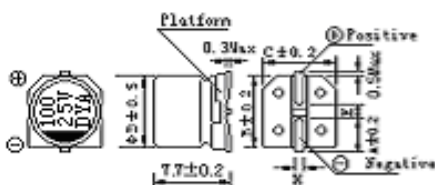


### Specifications

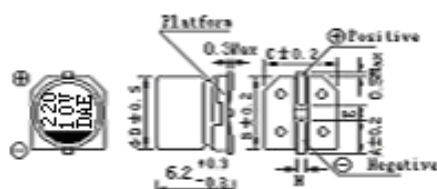
<b>Operating Temperature Range</b>	-55~+105°C									
<b>Rated Voltage Range</b>	6.3~100V DC									
<b>Nominal Capacitance Range</b>	4.7~1500uF									
<b>Capacitance Tolerance</b>	+/-20% (120Hz, 20°C)									
<b>Leakage Current (20°C)</b>	$I \leq 0.01C_R U_R (\mu A)$ or 3uA Whichever is greater (after 2 minutes)									
<b>Dissipation Factor (120Hz 20°C)</b>	$U_R(V)$	6.3	10	16	25	35	50	63	100	
	$tg \delta$	0.26	0.20	0.16	0.14	0.12	0.12	0.12	0.12	
<b>Temperature Characteristics Impedance Ratio (120Hz)</b>	$U_R(V)$	6.3	10	16	25	35	50	63	100	
	$Z_{-25^\circ C} / Z_{+20^\circ C}$	4	3	2	2	2	2	3	3	
	$Z_{-40^\circ C} / Z_{+20^\circ C}$	8	6	4	4	3	3	4	4	
<b>Load Life</b>	After applying for 2000 hours at +105°C and then resumed 16 hours. The capacitor shall meet the following limits.									
	Capacitance Change	$\leq \pm 20\%$ of Initial measured value (16V: Within +/-25% of the initial value)								
	Leakage	$\leq$ Initial specified value								
	Dissipation Factor	$\leq 200\%$ of Initial specified value								
<b>Shelf Life</b>	After storage for 1000 hours at +105°C and then resumed 16 hours, the capacitor shall meet the following limits.									
	Capacitance Change	$\leq \pm 20\%$ of Initial measured value								
	Leakage	$\leq$ Initial specified value								
	Dissipation Factor	$\leq 200\%$ of Initial specified value								
<b>Resistance to Soldering Heat</b>	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, then meet the following requirement.									
	Capacitance Change	$\leq \pm 10\%$ of Initial measured value								
	Leakage	$\leq$ Initial specified value								
	Dissipation Factor	$\leq$ Initial specified value								

### Dimensions & Marking

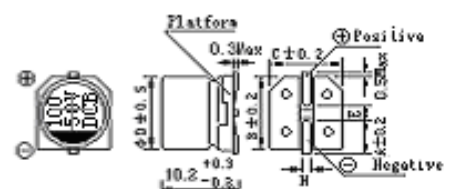
(Φ6.3×7.7)



(Φ8×6.2)



(Φ8~Φ10×10.2)



## VTD Series

mm

	Φ 6.3X7.7	Φ 8X6.2	Φ 8X10.2	Φ 10X10.2
<b>A</b>	2.5	2.9	2.9	3.2
<b>B</b>	6.6	8.3	8.3	10.3
<b>C</b>	6.6	8.3	8.3	10.3
<b>E</b>	2.2	3.1	3.1	4.5
<b>L</b>	7.7	6.2	10.2	10.2
<b>H</b>	0.5~0.8	0.8~1.1		

### Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

(V)	6.3		10		16		25	
Size uF	DXL mm	1~	DXL mm	1~	DXL mm	1~	DXL mm	1~
100							6.3X7.7 8X6.2	91 105
220	6.3X7.7 8 <sub>1</sub> 6.2	105 115	6.3X7.7 8X6.2	110 120	(6.3X7.7) 8X6.2 8X10.2	(105) 125 150	8X10.2	175
330	6.3X7.7 8X6.2	110 120	8X10.2	196	8X10.2	195	10X10.2 (8X10.2)	240 (220)
470	8X10.2	210	8X10.2	210	10X10.2 (8X10.2)	295 (230)	10X10.2	280
1000	10X10.2 (8X10.2)	300 (230)	10X10.2	315	10X10.2	340		
1500	10X10.2	315						

(V)	35		50		63		100	
Size uF	DXL mm	1~	DXL mm	1~	DXL mm	1~	DXL mm	1~
4.7							6.3X7.7 8X6.2	35 40
10					6.3X7.7 8X6.2	39 45	8X10.2 (6.3X7.7)	77 (35)
22			6.3X7.7 8X6.2	51 (54)	8X10.2 (6.3X7.7)	98 (49)	10X10.2 (8X10.2)	126 (84)
33	8X6.2	50	6.3X7.7	60	6.3X7.7	112	10X10.2	133
47	6.3X7.7 8X6.2	70 78	8X10.2 (6.3X7.7)	120 (75)	10X10.2 (8X10.2)	160 (119)	10X10.2	140
100	8X10.2 (6.3X7.7)	120 (84)	10X10.2 (8X10.2)	170 (140)	10X10.2	196		
220	10X10.2 (8X10.2)	220 (190)	10X10.2	220				
330	10X10.2	245						
470	10X10.2	280						

Rated ripple current : (mA , 105°C, 120Hz) ;

The Sizes in Red " Without Parentheses are New Specs, as 8<sub>1</sub> 6.2

The Sizes in Red " With Parentheses are Smaller Specs