VD Series

性能特点 Feature

- 低阻抗、长寿命 Low impedance,Long life.
- 适用于再流焊 Reflow soldering is available.
- 适用于高密度表面组装 vailable for high density surface mounting.
- 工作温度范围宽 (-55°C ~+105°C)Operating over wide temperature range.
- ROHS 指令已对应完毕 Adapted to the ROHS directive.

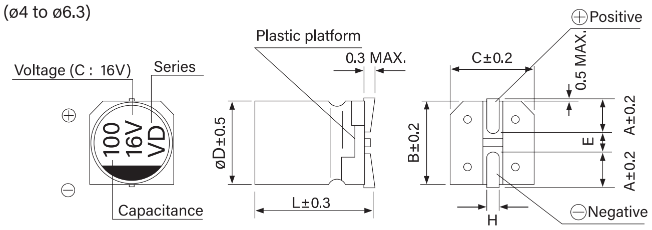
技术性能 Specifications

项目 Item	特性 Performance Characteristics						
使用温度范围 Operating temperature range	-55~+105°C						
额定电压范围 Rated voltage range	6.3~50V						
标称电容量范围 Nominal capacitance range	1~8200μF						
标称电容量允许偏差 Capacitance tolerance	±20%(120Hz，+20°C)						
漏电流 Leakage current	I ≤ $0.01C_RV_R$ (μA) or 3(μA) 2 分钟 取较大者　C_R: 标称电容量（μF)　U_R: 额定电压 (V) (at 20°C ,after 2 minutes) (whichever is greater)　C_R: Nominal Capacitance　U_R:Rated voltage(V)						
损耗角正切值 (tg δ) Dissipation factor (+20°C~120Hz)	U_R(V)	6.3	10	16	25	35	50
	tg δ	0.26(0.28)	0.20(0.24)	0.16(0.20)	0.14(0.16)	0.12(0.14)	0.12(0.14)
	容量大于 1000μF 者，每增加 1000μF，其损耗角正切值增加 0.02　注：( ) 为 ø8 以上产品 When nominal capacitance exceeds 1000μF,add 0.02 to the value above for each 1000μF increase.						
耐久性 Load life	+105°C 施加额定电压条件，电容器应满足以下要求： Application of rated voltage at 105°C, the capacitor shall meet the following requirement: øD=4, 5 and 6.3 : 2000h；øD=8, 10 : 5000h；øD=12.5, 16 and 18 : 8000h 电容量变化率 Capacitance change : ±30% 初始测量值以内 Within ±30% of the initial value 漏电流 Leakage current : ≤初始规定值　≤ the initial specified value 损耗角正切值 Dissipation factor : ≤ 300% 初始规定值　≤ 300% of the initial specified value						
高温储存 Shelf life	+105°C 贮存 1000 小时后，电容器应满足以上耐久性要求： After storage for 1000 hours at +105°C, the capacitors shall meet the requirement of load life abovoe						
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio(120Hz)	U_R(V)	6.3	10	16	25	35	50
	Z-25°C/Z+20°C	3	2	2	2	2	2
	Z-40°C/Z+20°C	5	4	4	3	3	3
耐焊接热 Resistance to Soldering Heat	在 250°C 的条件下，电容器在热板上保持 30 秒，然后从热板上取出电容器，让其在室温下恢复，电容器应满足以下要求： 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 temporature, they meet the following requiromant. 电容量变化率 Capacitance change : ±10% 初始测量值以内 Within ±10% of the initial value 漏电流 Leakage current : ≤初始规定值　≤ the initial specified value 损耗角正切值 Dissipation factor : ≤初始规定值　≤ the initial specified value						

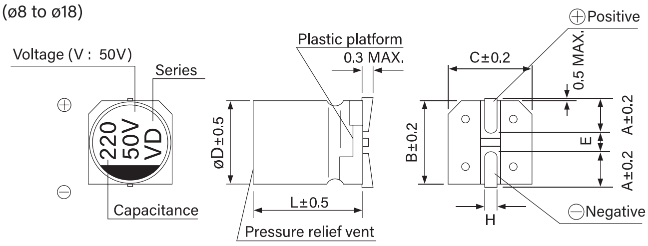
尺寸和标记 Dimensions And Marking

* 适用于 Apply to ø6.3×7.7

(ø4 to ø6.3)



(ø8 to ø18)



	4×5.4	5×5.4	6.3×5.4	6.3×7.7	6.3×10.5	8×10.5	8×12.5	10×10.5	10×12.5	12.5×13.5	12.5×16.5	16×16.5	18×16.5	18×21.5
A	1.8	2.1	2.4	2.4	2.4	2.9	2.9	3.2	3.2	4.8	4.8	5.8	6.8	6.8
B	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3	10.3	13	13	17	19	19
C	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3	10.3	13	13	17	19	19
E	1.0	1.3	2.2	2.2	2.2	3.1	3.1	4.5	4.5	4.4	4.4	6.4	6.4	6.4
L	5.4	5.4	5.4	7.7	10.5	10.5	12.5	10.5	12.5	13.5	16.5	16.5	16.5	21.5
H	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1	0.8~1.1	0.8~1.1	1.1~1.4	1.1~1.4	1.1~1.4	1.1~1.4	1.1~1.4

VD Series

标准评级 Standard Ratings

额定纹波电流 Rated Ripple Current (mA,+105°C,100kHz)

电压 U_R / 容量 C_R(μF)	6.3			10			16			25			35			50		
	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple	Case Size øDxL (mm)	Impe-dance (Ω)	Ripple
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													4.5×5.4	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
15							4×5.4	1.80	80	5×5.4	0.76	150	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	80	6.3×5.4	0.88	165
27	4×5.4	1.80	80	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	6.3×7.7	0.68	185
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
56	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	0.34	280	8×10.5	0.34	300
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	8×10.5	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	8×10.5	0.17	300	8×10.5	0.34	300
150	6.3×5.4	0.44	230	6.3×5.4	0.44	230	6.3×7.7	0.34	280	8×10.5	0.17	450	8×10.5	0.17	300	10×10.5	0.18	550
220	6.3×5.4	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8×10.5	0.17	450	8×10.5	0.17	450	10×10.5	0.18	550
330	6.3×7.7	0.34	280	8×10.5	0.17	450	8×10.5	0.17	450	8×10.5	0.17	450	10×10.5	0.09	670	10×13.5	0.18	550
470	8×10.5	0.17	450	8×10.5	0.17	450	8×10.5	0.17	450	10×10.5	0.09	670	10×10.5	0.09	670	12.5×13.5	0.12	650
680	8×10.5	0.17	450	10×10.5	0.09	670	10×10.5	0.09	670	10×10.5	0.09	670	12.5×13.5	0.07	820	16×16.5	0.073	1000
1000	8×10.5	0.17	450	10×10.5	0.09	670	10×10.5	0.09	670	12.5×13.5	0.07	820	16×16.5	0.054	1260	18×16.5	0.066	1500
1500	10×10.5	0.09	670	12.5×13.5	0.07	820	12.5×13.5	0.07	820	12.5×16.5	0.06	950	18×16.5	0.048	1500	18×21.5	0.05	1620
2200	12.5×13.5	0.07	820	12.5×16.5	0.06	950	12.5×16.5	0.06	1260	16×16.5	0.054	1260	18×21.5	0.038	1750			
3300	12.5×16.5	0.06	950	16×16.5	0.054	1260	16×16.5	0.054	1260	18×21.5	0.038	1260						
4700	16×16.5	0.054	1260	16×16.5	0.054	1260	18×16.5	0.048	1260									
6800	18×16.5	0.048	1500	18×16.5	0.048	1500												
8200	18×21.5	0.038	1750	18×21.5	0.038	1750												

* 支持客户根据需求定制 Support Customer Customization According To Demand

允许纹波电流的频率校正系数 Frequency Correction Factor Of Allowable Ripple Current

Frequency 频率	50Hz	120Hz	300Hz	1KHz	⩾ 10KHz
Coefficient 系数	0.35	0.50	0.64	0.83	1.00