

VT Series

性能特点 Feature

- 产品直径 Case diameter: $\varnothing 4\text{mm} - \varnothing 18\text{mm}$.
- 适用于再流焊 Reflow soldering is available.
- 适用于高密度表面组装 Available for high density surface mounting.
- 工作温度范围宽 ($-40 \sim +105^\circ\text{C}$) Operating over wide temperature range.
- ROHS 指令已对应完毕 Adapted to the ROHS directive.



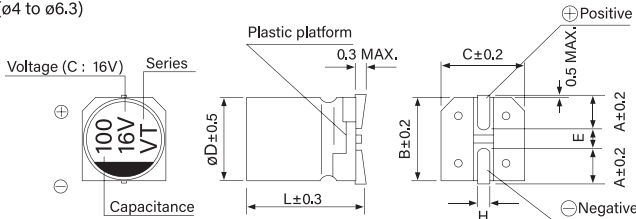
技术性能 Specifications

项目 Item	特性 Performance Characteristics																								
使用温度范围 Operating temperature range	$-40 \sim +105^\circ\text{C}$																								
额定电压范围 Rated voltage range	6.3~100V																								
标称电容量范围 Nominal capacitance range	0.1~8200 μF																								
标称电容量允许偏差 Capacitance tolerance	$\pm 20\%$ (120Hz, $+20^\circ\text{C}$)																								
漏电流 Leakage current	$I \leq 0.01C_R V_R$ (μA) or $3\mu\text{A}$ 2分钟取较大者 (at 20°C , after 2 minutes) (Whichever is greater) C_R : 标称电容量 (μF) U_R : 额定电压 (V) C_R : Nominal Capacitance U_R : Rated voltage(V)																								
损耗角正切值 (tg δ) Dissipation factor ($+20^\circ\text{C} \sim 120\text{Hz}$)	<table border="1"> <tr> <td>U_R(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>100</td> </tr> <tr> <td>tg δ</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.12</td> <td>0.14</td> <td>0.12</td> <td>0.1</td> </tr> </table>	U_R (V)	6.3	10	16	25	35	50	100	tg δ	0.28	0.24	0.20	0.12	0.14	0.12	0.1								
	U_R (V)	6.3	10	16	25	35	50	100																	
tg δ	0.28	0.24	0.20	0.12	0.14	0.12	0.1																		
容量大于 1000 μF 者, 每增加 1000 μF , 其损耗角正切值增加 0.02 When nominal capacitance exceeds 1000 μF , add 0.02 to the value above for each 1000 μF increase.																									
耐久性 Load life	+105 $^\circ\text{C}$ 施加额定电压 2000 小时后, 电容器应满足以下要求: After applying the rated voltage at $+105^\circ\text{C}$ for 2000 hours, the capacitor shall meet the following requirements: 电容量变化率 Capacitance change: $\pm 20\%$ 初始测量值以内 ($< \varnothing 8$: $\pm 25\%$ 初始值以内) Within $\pm 20\%$ of the initial value ($< \varnothing 8$ Within $\pm 25\%$ of the initial value) 漏电流 Leakage current: \leq 初始规定值 \leq the initial specified value 损耗角正切值 Dissipation factor: $\leq 200\%$ 初始规定值 ($< \varnothing 8$: $\leq 300\%$ 初始规定值) $\leq 200\%$ of the initial specified value ($< \varnothing 8$ $\leq 300\%$ of the initial specified value)																								
高温储存 Shelf life	+105 $^\circ\text{C}$ 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 $+105^\circ\text{C}$, the capacitors shall meet the requirement of load life above																								
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio(120Hz)	<table border="1"> <tr> <td>U_R(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>100</td> </tr> <tr> <td>Z-25$^\circ\text{C}/Z+20^\circ\text{C}$</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40$^\circ\text{C}/Z+20^\circ\text{C}$</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	U_R (V)	6.3	10	16	25	35	50	100	Z-25 $^\circ\text{C}/Z+20^\circ\text{C}$	4	3	2	2	2	2	2	Z-40 $^\circ\text{C}/Z+20^\circ\text{C}$	8	6	4	4	3	3	3
	U_R (V)	6.3	10	16	25	35	50	100																	
Z-25 $^\circ\text{C}/Z+20^\circ\text{C}$	4	3	2	2	2	2	2																		
Z-40 $^\circ\text{C}/Z+20^\circ\text{C}$	8	6	4	4	3	3	3																		
在 250 $^\circ\text{C}$ 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 temperature, they meet the following requirement. 电容量变化率 Capacitance change: $\pm 10\%$ 初始测量值以内 Within $\pm 10\%$ of the initial value 漏电流 Leakage current: \leq 初始规定值 \leq the initial specified value 损耗角正切值 Dissipation factor: \leq 初始规定值 \leq the initial specified value																									
耐焊接热 Resistance to Soldering Heat	在 250 $^\circ\text{C}$ 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 temperature, they meet the following requirement. 电容量变化率 Capacitance change: $\pm 10\%$ 初始测量值以内 Within $\pm 10\%$ of the initial value 漏电流 Leakage current: \leq 初始规定值 \leq the initial specified value 损耗角正切值 Dissipation factor: \leq 初始规定值 \leq the initial specified value																								

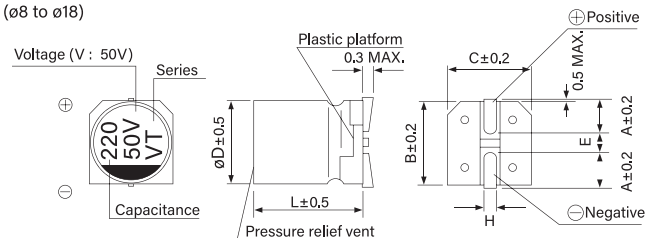
尺寸和标记 Dimensions And Marking

* 适用于 Apply to $\varnothing 6.3 \times 7.7$

($\varnothing 4$ to $\varnothing 6.3$)



($\varnothing 8$ to $\varnothing 18$)



	4x5.4	5x5.4	6.3x5.4	6.3x7.7	6.3x10.5	8x10.5	8x12.5	10x10.5	10x12.5	12.5x13.5	12.5x16.5	16x16.5	18x16.5	18x21.5
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

VT Series

标准评级 Standard Ratings

额定纹波电流 Rated Ripple Current (mA,+105°C,120Hz)

电压 U_r 容量 $C_r(\mu F)$	6.3		10		16		25		35		50		100	
	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current	Case Size $\phi D \times L$ (mm)	Rated Ripple Current
0.1											4x5.4	2.3		
0.22											4x5.4	3.4		
0.33											4x5.4	4.1		
0.47											4x5.4	5		
1.0											4x5.4	10	4x5.4	22
2.2											4x5.4	16	4x5.4	22
3.3									4x5.4	13	4x5.4	16	5x5.4	30
4.7							4x5.4	22	4x5.4	22	4x5.4	16	5x5.4	30
											5x5.4	23	6.3x5.4	65
10					4x5.4	28	4x5.4	22	4x5.4	22	5x5.4	25	6.3x5.4	65
							5x5.4	28	5x5.4	30	6.3x5.4	32	6.3x7.7	80
22	4x5.4	29	4x5.4	28	4x5.4	28	5x5.4	32	6.3x5.4	60	6.3x5.4	35	6.3x7.7	80
			5x5.4	30	5x5.4	39	6.3x5.4	55			6.3x7.7	51	8x10.5	230
33	4x5.4	30	4x5.4	29	5x5.4	35	6.3x5.4	65	6.3x5.4	60	6.3x7.7	70	8x10.5	230
	5x5.4	34	5x5.4	34										
47	4x5.4	32	4x5.4	30	5x5.4	45	6.3x5.4	70	6.3x5.4	65	6.3x7.7	80	8x10.5	230
	5x5.4	46	5x5.4	45	6.3x5.4	70			6.3x7.7	80				
100	5x5.4	52	5x5.4	50	6.3x5.4	70	6.3x7.7	100	6.3x7.7	90	8x10.5	230	10x12.5	800
	6.3x5.4	71	6.3x5.4	69	6.3x7.7	120			8x10.5	296			12.5x13.5	1050
150	6.3x5.4	90	6.3x5.4	70	6.3x7.7	120	8x10.5	280	8x10.5	300	10x10.5	300	16x16.5	1450
220	6.3x5.4	95	6.3x5.4	95	6.3x7.7	120	8x10.5	320	8x10.5	350	10x10.5	375	16x16.5	1450
	6.3x7.7	120	6.3x7.7	120										
330	6.3x7.7	130	6.3x7.7	130	8x10.5	305	10x10.5	450	10x10.5	450	10x10.5	400	18x16.5	1550
	8x10.5	290	8x10.5	305										
470	6.3x7.7	140	6.3x7.7	140	8x10.5	340	10x10.5	490	10x10.5	480	12.5x13.5	490	18x16.5	1550
	8x10.5	330	8x10.5	340										
680	8x10.5	335	10x10.5	380	10x10.5	450	10x10.5	500	12.5x13.5	600	16x16.5	750	18x21.5	1950
1000	8x10.5	340	10x10.5	410	10x10.5	550	12.5x13.5	550	16x16.5	800	18x16.5	990	18x21.5	1950
1500	10x10.5	475	12.5x13.5	600	12.5x13.5	650	12.5x16.5	650	16x16.5	900				
2200	12.5x13.5	680	12.5x13.5	680	16x16.5	900	16x16.5	900	18x16.5	1050				
3300	12.5x16	850	16x16.5	950	16x16.5	950	18x16.5	1150						
4700	16x16.5	1000	16x16.5	1000	18x16.5	1225	18x21.5	1300						
6800	18x16.5	1290	18x16.5	1290										
8200	18x21.5	1450	18x21.5	1450										

* 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	10K~100Hz
Coefficient 系数	0.70	1.00	1.17	1.36	1.50