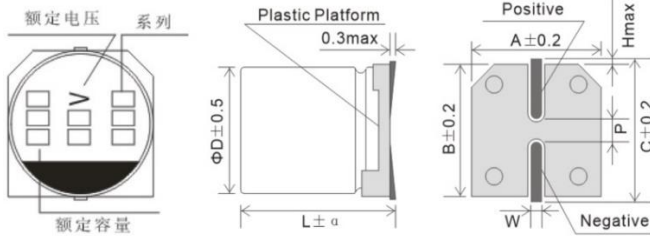


P/N: VT1H221M1010	PRODUCT DATA SHEET VT, 50v, 220uF, 10x10.2	Page: 1/2
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■ Description 产品描述:

Al-Ecap, 220uF, 50v, ±20%, D10H10.2mm, 2000Hrs@105℃, -55~+105℃, SMD.

■ Dimension& Marking 印刷及尺寸:



■ Features 特长/用途:

- 105℃, 2,000 hours assured 宽温长寿命
- Designed for surface mounting on high density PC board 适合高密度表面安装

Items Case	A	B	C	D	P	L	α	W	H
$\Phi 10 \times 10.2$	10.3	10.3	11	10.0	4.7	10.2	± 0.5	0.8~1.1	0.5max.

Items 项目	Performance 性能				
Rated Voltage 额定电压(V_R)	50 V				
Capacitance 额定容量(C_R)	220 uF (120Hz, 20℃)				
Category Temperature Range 类别温度范围	-55℃ ~ +105℃				
Capacitance Tolerance 容量误差	-20% ~ +20% (120Hz, 20℃)				
Surge Voltage 浪涌电压(V_S)	57.5 V _{DC}				
Leakage Current 泄漏电流(I_{LC})	$I_{LC} \leq 110 \mu A$ After 2 minutes				
Dissipation Factor (Tan δ) 损耗角正切值	≤ 0.14 (120Hz, 20℃)				
Ripple Current 纹波电流($I_{RC, rms}$)	220 mA (120Hz, 105℃)				
Low Temperature Characteristics 温度特性(120Hz)	Impedance ratio 阻抗比(Max.)	$Z_{(-25^\circ C)} / Z_{(+20^\circ C)}$	2		
		$Z_{(-55^\circ C)} / Z_{(+20^\circ C)}$	3		
Endurance and Shelf Life 耐久性及高温无负荷特性	Items 项目	Endurance 耐久性		Shelf Life Test 高温无负荷	
	Test Time 测试时长	2,000 Hrs at 105℃; V_R		1,000 Hrs at 105℃	
	Cap. Change 容量变化率	Within ±30% of initial Value $\leq$ 初始值的±30%		Within ±30% of initial Value $\leq$ 初始值的±30%	
	Tan δ 损耗角正切值	Less than 300% of specified Value $\leq$ 初始规格值的±300%		Less than 200% of specified Value $\leq$ 初始规格值的±300%	
	Leakage Current 漏电流	Whitin specified Value $\leq$ 初始规格值		Whitin specified Value $\leq$ 初始规格值	
Ripple Current and Frequency Multipliers 纹波电流频率系数	Frequency (Hz)	50, 60	120	1k	10k up
	Multiplier	0.80	1.00	1.20	1.30
Standards 参考标准	JIS C 5101-1, -18, IEC 60384-4				
Remarks 附注	RoHS Compliance, Halogen-free				

* Please refer to "Precautions and Guidelines for Aluminum Electrolytic Capacitors" section in catalog for further details 详细信息请参阅目录中的“铝电解电容器注意事项和指南”

Publication Date 发行日期	2023-07-27		Approved 批准	Checked 复核	Designed 设计
Revision Date 修订日期				Lei Yang	Chao Yu
Version No.	1.0				

■ Taping Specifications 编带规格:



Case 尺寸	W (mm)	W1 (mm)	F (mm)	P (mm)	P1 (mm)	P2 (mm)	A (mm)	B (mm)	t1 (mm)	t2 (mm)
Tolerance 误差	±0.3	±0.15	±0.1	±0.1	±0.1	±0.1	±0.2	±0.2	±0.1	±0.2
Φ10x10.2	24	1.75	11.5	16	2	4	10.7	10.7	0.4	11

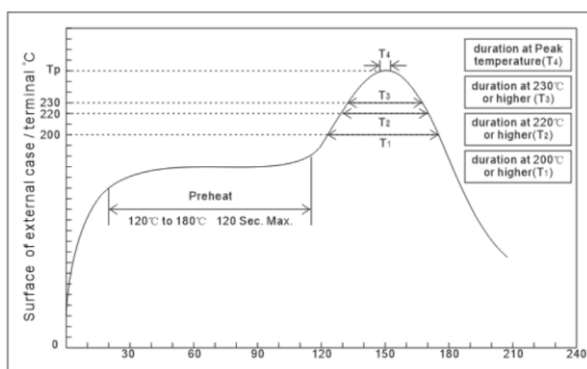
■ Park 包装:



Case 产品尺寸	Reel 卷装数量	Box 盒装数量	A±0.3(mm)	B±2(mm)	Box size 外箱尺寸(L*W*H)
Φ10x10.2	500	5000	26	382	395x305x395

■ Soldering Conditions 焊接条件:

1. The following conditions are recommended for air convection and infrared reflow soldering on the SMD products onto a glass epoxy circuit boards by cream solder. The temperatures shown are the surface temperature values on the top of the can and on the capacitor terminals. 当使用回流焊，在玻璃环氧树脂树脂基板上进行焊接的时候，产品顶部及端子部分温度，时间的推荐范围如下表所示。
2. Reflow should be performed twice or less 推荐回流次数不超过 2 次。
3. Please ensure that the capacitor became cold enough to the room temperature (5 to 35℃) before the second reflow. 请在第 1 次回流之后，必须确保电容器的温度已经完全冷却到室温(5~35℃)后方可进行第 2 次回流。



Note 备注:

1. Average ramp-up rate is 5°C/second max
温度上升平均每秒钟最多 5℃;
2. Ramp-down rate is 6°C/second max
温度下降平均每秒钟最多 6℃;
3. Time from 25°C to peak temperature is 6 minutes max.
从 25℃上升到峰值温度的时间最多 6 分钟;

Category 类别	Time maintained above 200°C (T1) 200℃以上时间	Time maintained above 217°C (T2) 217℃以上时间 (T2)	Time maintained above 230°C (T3) 230℃以上时间 (T3)	Range of Peak 峰值范围		Reflow number 回流焊次数
				Temp 温度	Times 时间	
Φ10	60 sec.	60 sec.	30 sec.	255°C Max.	5sec Max.	2 times or less