

P/N:

GVL1V477M1010CN

PRODUCT DATA SHEET

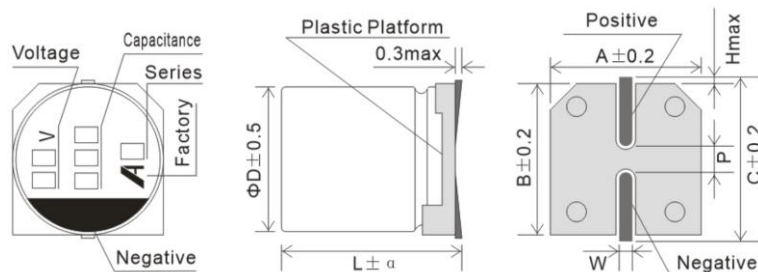
GVL, 35v, 470uF, 10x10.5

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■ Description 产品描述:

Al-Ecap, 470uF, 35v, $\pm 20\%$, Ultra-low ESR, D10H10.5mm, 5000Hrs@105°C, -55~+105°C, SMD.

■ Dimension & Marking 印刷及尺寸:



■ Features 特长/用途:

- 105°C, Long life 宽温长寿命
- Ultra-low impedance capacitors 超低阻抗
- Designed for surface mounting on high density PC board 适合高密度表面安装

■ Serie Expansion 系列拓展



Items	A	B	C	D	P	L	α	W	H
Case									
$\phi 10 \times 10.5$	10.3	10.3	11	10.0	4.7	10.5	± 0.5	0.8~1.1	0.5max.

Items 项目	Performance 性能			
Rated Voltage 额定电压(V_R)	35 V			
Capacitance 额定容量(C_R)	470 uF (120Hz, 20°C)			
Category Temperature Range 类别温度范围	-55°C ~ +105°C			
Capacitance Tolerance 容量误差	-20% ~ +20% (120Hz, 20°C)			
Surge Voltage 浪涌电压(V_S)	40.3 V _{DC}			
Leakage Current 泄漏电流(I_{LC})	$I_{LC} \leq 164.5 \mu A$ After 2 minutes			
Dissipation Factor ($\tan \delta$) 损失角正切值	≤ 0.12 (120Hz, 20°C)			
Impedance 阻抗 (Z , Ω)	≤ 0.09 (100kHz, 20°C)			
Ripple Current 纹波电流($I_{RC, rms}$)	820 mA (100kHz, 105°C)			
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	5,000 Hrs at 105°C; V_R	1,000 Hrs at 105°C	
	Cap. Change 容量变化率	Within $\pm 30\%$ of initial Value $\leq$ 初始值的 $\pm 30\%$	Within $\pm 30\%$ of initial Value $\leq$ 初始值的 $\pm 30\%$	
	$\tan \delta$ 损失角正切值	Less than 300% of specified Value $\leq$ 初始规格值的 $\pm 300\%$	Less than 300% of specified Value $\leq$ 初始规格值的 $\pm 300\%$	
	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)	120	1k	10k
	Multiplier	0.65	0.85	0.95
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”

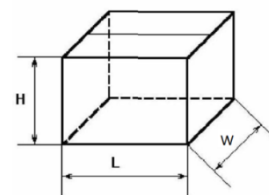
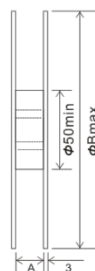
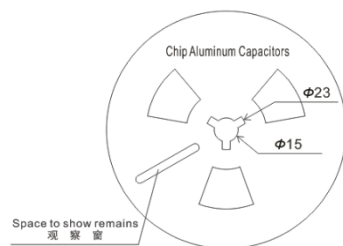
Publication Date 发行日期	2022-02-15	Approved 批准	Checked 复核	Designed 设计
Revision Date 修订日期			Lei Yang	Chao Yu
Version No.	1.0			

■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
Φ10x10.5	24	1.75	11.5	16	2	4	10.7	10.7	0.4	11

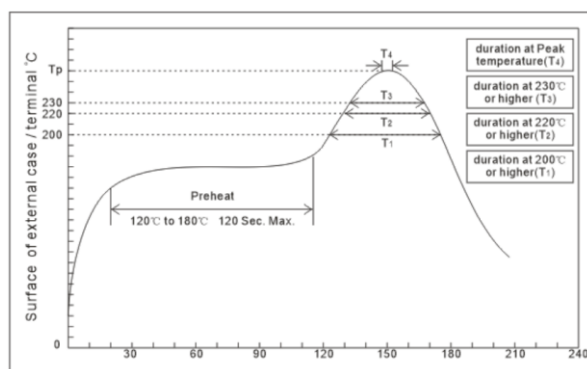
■ Park 包装:



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)
Φ10x10.5	500	5000	26	382	395x305x395

■ Soldering Conditions 焊接条件:

- he 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。
- Reflow should be performed twice or less 推荐回流次数不超过 2 次。
- 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:

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

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