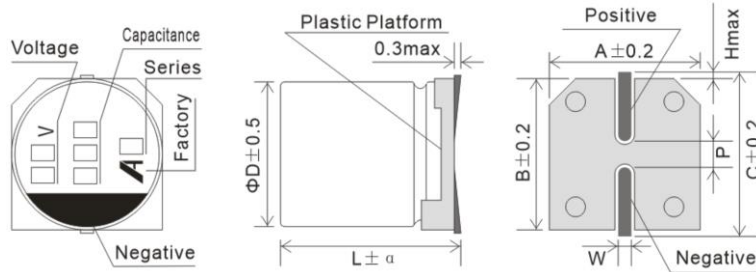


|                         |                                                           |           |
|-------------------------|-----------------------------------------------------------|-----------|
| P/N:<br>GVT1A477M0608CN | <b>PRODUCT DATA SHEET</b><br><br>GVT, 10v, 470uF, 6.3x7.7 | Page: 1/2 |
|-------------------------|-----------------------------------------------------------|-----------|

■ Description 产品描述:

Al-Ecap, 470uF, 10v,  $\pm 20\%$ , D6.3H7.7mm, 2000Hrs@105°C, -55~+105°C, SMD.

■ Dimension & Marking 印刷及尺寸:

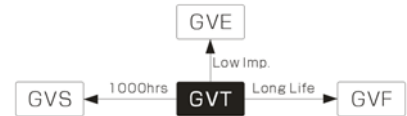


■ Features 特长/用途:

- 105°C, 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

■ Serie Expansion 系列拓展

| Items Case            | A   | B   | C   | D   | P   | L   | $\alpha$  | W       | H       |
|-----------------------|-----|-----|-----|-----|-----|-----|-----------|---------|---------|
| $\phi 6.3 \times 7.7$ | 6.6 | 6.6 | 7.3 | 6.3 | 2.0 | 7.7 | $\pm 0.3$ | 0.5~0.8 | 0.5max. |



| Items 项目                                          | Performance 性能                         |                                                             |      |                                                             |
|---------------------------------------------------|----------------------------------------|-------------------------------------------------------------|------|-------------------------------------------------------------|
| Rated Voltage 额定电压( $V_R$ )                       | 10 V                                   |                                                             |      |                                                             |
| Capacitance 额定容量( $C_R$ )                         | 470 uF (120Hz, 20°C)                   |                                                             |      |                                                             |
| Category Temperance 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( $V_S$ )                       | 11.5 V <sub>DC</sub>                   |                                                             |      |                                                             |
| Leakage Current 泄漏电流( $I_{LC}$ )                  | $I_{LC} \leq 47 \mu A$ After 2 minutes |                                                             |      |                                                             |
| Dissipation Factor (Tan $\delta$ ) 损失角正切值         | $\leq 0.24$ (120Hz, 20°C)              |                                                             |      |                                                             |
| Ripple Current 纹波电流( $I_{RC, rms}$ )              | 150 mA (120Hz, 105°C)                  |                                                             |      |                                                             |
| Low Temperature Characteristics 温度特性(120Hz)       | Impedance ratio 阻抗比(Max.)              | $Z_{(-25^\circ C)} / Z_{(+20^\circ C)}$                     | 4    |                                                             |
|                                                   |                                        | $Z_{(-55^\circ C)} / Z_{(+20^\circ C)}$                     | 8    |                                                             |
| 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°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)                         | 50, 60                                                      | 120  | 1k                                                          |
|                                                   | Multiplier                             | 0.80                                                        | 1.00 | 1.20                                                        |
| 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”

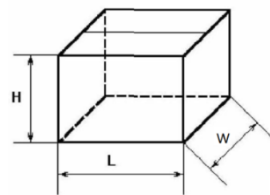
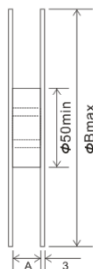
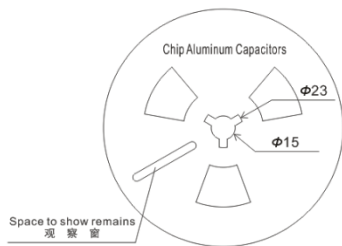
|                       |            |                                                                     |
|-----------------------|------------|---------------------------------------------------------------------|
| Publication Date 发行日期 | 2022-02-15 | Approved 批准<br><br>Checked 复核<br>Lei Yang<br>Designed 设计<br>Chao Yu |
| Revision Date 修订日期    |            |                                                                     |
| 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    |
| Φ6.3x7.7     | 16     | 1.75    | 7.5    | 12     | 2       | 4       | 7      | 7      | 0.4     | 8.3     |

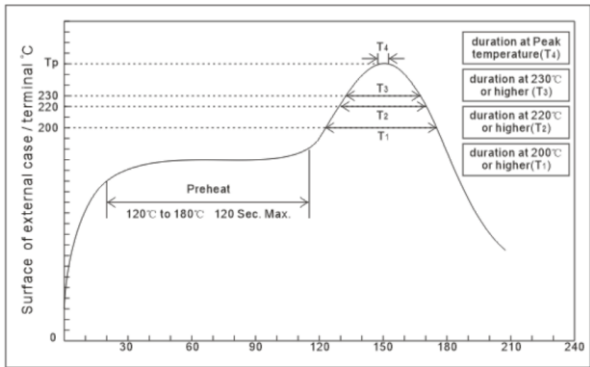
■ Park 包装:



| 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) |
|-----------|-----------|----------|-----------|---------|----------------------|
| Φ6.3x7.7  | 1000      | 10000    | 18        | 382     | 395x235x395          |

■ 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°C/second max  
温度上升平均每秒钟最多 5℃；
- Ramp-down rate is 6°C/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)<br>200℃以上时间 | Time maintained above 217℃(T2)<br>217℃以上时间 (T2) | Time maintained above 230℃(T3)<br>230℃以上时间(T3) | Range of Peak 峰值范围 |           | Relow number<br>回流焊次数 |
|-------------|--------------------------------------------|-------------------------------------------------|------------------------------------------------|--------------------|-----------|-----------------------|
|             |                                            |                                                 |                                                | Temp 温度            | Times 时间  |                       |
| Φ6.3        | 105sec.                                    | 90 sec.                                         | 60 sec.                                        | 260℃ Max.          | 5sec Max. | 2 times or less       |