



TAE雅晶

序号Serial No. 2019010938

日期Date:2019-01-09

致TO: 深圳华强聚丰电子科技有限公司

产品ITEM: 石英晶体谐振器 QUARTZ CRYSTAL UNITS

型号TYPE: SMD-5032 2PIN GA (TXM8.000M2503KDCE-O00T)

标称频率NOMINAL FREQUENCY: 8.000MHz /18PF +/-20PPM

请收到我们的规格书后，签字回传。  
Please confirm you received this specification,sign and fax it to us.

| 接收确认RECEIVING CONFIRMATION |  |
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浙江雅晶电子有限公司  
ZheJiang ABEL Electron Co.,Ltd.

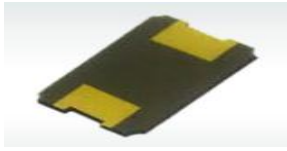
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RoHS Compliant Standard

T-5032-2PIN-GLASS

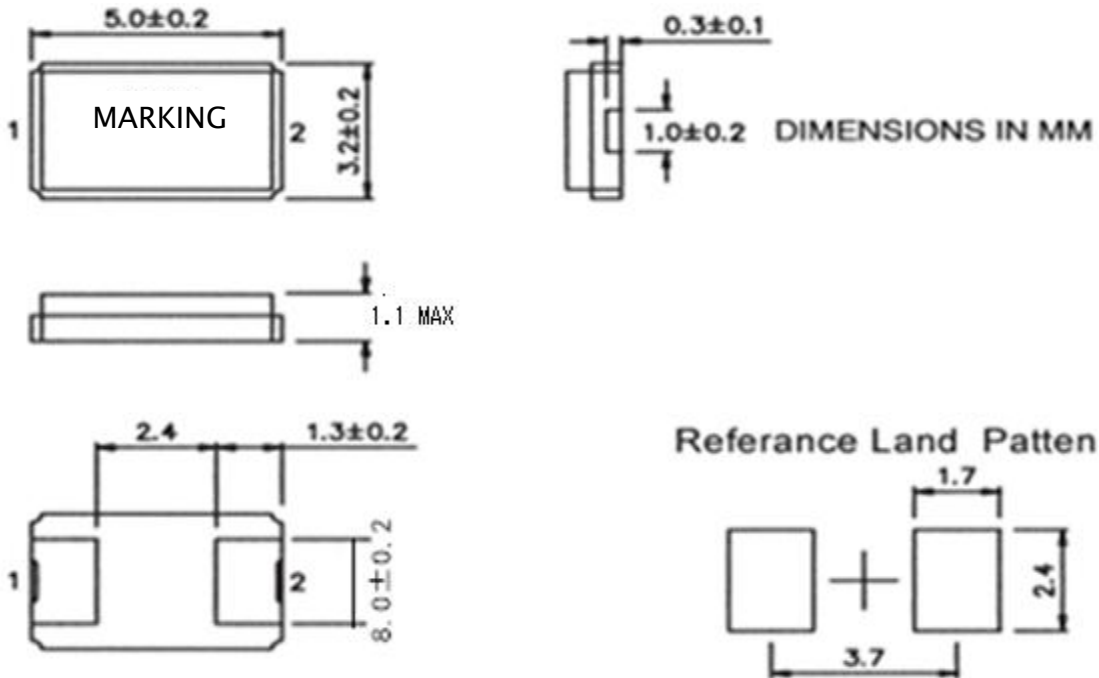


Features 特性

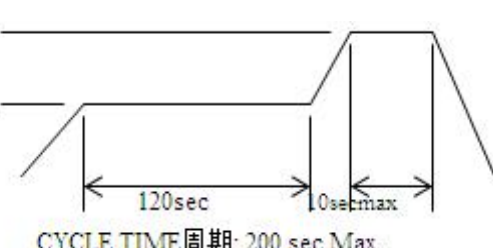
- Nominal Frequency 标称频率: 8.000MHz
- Suited for portable devices with low current consumption  
適合於低功耗的便攜設備
- For a clock source in electronic equipments 適用於电子設備的時鐘源

| Item                  | Model  | T-5032-2PIN-GLASS | Conditions |
|-----------------------|--------|-------------------|------------|
| Frequency Range       | 标称频率   | 8.000MHz          |            |
| Frequency Tolerance   | 調整頻差   | ±20ppm Max        | at 25°C    |
| Freq. Tol. Over Temp. | 溫度頻差   | ±30ppm Max        | -40~+85°C  |
| Operating Temp. Range | 工作溫度範圍 | -40~+85°C         |            |
| Storage Temp. Range   | 保存溫度範圍 | -55~+125°C        |            |
| Series Resistance     | 諧振電阻   | 80Ω Max           |            |
| Load Capacitance      | 負載電容   | 18pF              |            |
| Shunt Capacitance     | 靜態電容   | 7.0pF Max         |            |
| Drive Level           | 激勵電平   | 100µw Max         |            |
| Aging                 | 老化率    | ±3ppm/year Max    |            |
| Insulation Resistance | 絕緣阻抗   | 500Mohm/Min       | DC100V±15V |

OUTLINE DIMENSIONS (unit: mm)



| 序号<br>NO | 项目<br>ITEM                     | 条件<br>CONDITIONS  | 合格标准<br>BASIS OF VERDICT   |
|----------|--------------------------------|---|--|
| 1        | 跌落<br>Drop                     | 100cm高处自由跌落到3cm厚硬木板上,3次<br>High:100cm;Thickness:3cm;3 times   | $\Delta FL \leq \pm 5\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$<br>(whichever is larger)  |
| 2        | 振动<br>Vibration                | 频率 Frequency: 10~2000Hz; 加速度幅度 Acceleration: 100 m/s <sup>2</sup><br>振动方向 Direction: X, Y, Z<br>振动时间 Duration: 每个方向30分钟 30 min/direction.<br>循环次数 Times: 12次  | $\Delta FL \leq \pm 5\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$<br>(Whichever is Larger)  |
| 3        | 热冲击<br>Thermal shock           | -55°C~+125°C, 1000个循环<br>最大转换时间: 5分钟; 停留时间: 5分钟<br>-55°C~+125°C, For 1000 cycles<br>Maximum conversion time: 5 minutes;Remain time:5 minutes  | $\Delta FL \leq \pm 10\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$<br>(Whichever is Larger) |
| 4        | 湿热<br>Humidity                 | 温度:85°C;湿度:85%;时间:1000小时<br>Temp:85°C;Humidity:85%;Times:1000h  | $\Delta FL \leq \pm 10\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$<br>(Whichever is Larger) |
| 5        | 低温<br>Cold resistance          | 温度:-40°C;时间:1000小时<br>Temp:-40°C;Times:1000h  | $\Delta FL \leq \pm 10\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$<br>(Whichever is Larger) |
| 6        | 湿度抗性<br>Humidity<br>resistance | 高温: 65°C (10小时, 含升温), 低温: 25°C (2小时, 含降温), 湿度90%, 循环10次, 每循环24小时<br>High-Temperature: 65°C ± 2°C (10 hours, including heating),<br>Low-Temperature: 25°C ± 2°C (2 hours, including cooling),<br>Humidity: 90%, for 10 cycles (24 hours/cycle) | $\Delta FL \leq \pm 10\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$<br>(Whichever is Larger) |
| 7        | 机械冲击<br>Mechanical<br>shock    | 峰值 Peak: 100g's<br>持续时间 Duration: 6ms<br>波形 Waveform: 半正弦波 Half-sine<br>变化速度 Velocity Change: 12.3 ft / sec<br>振动方向 Direction: +X, -X, +Y, -Y, +Z, -Z<br>每个方向各3次 3 times/direction  | $\Delta FL \leq \pm 5\text{ppm}$<br>$\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$<br>(Whichever is Larger)  |

| 序号<br>NO | 项目<br>ITEM                         | 条件<br>CONDITIONS  | 合格标准<br>BASIS OF VERDICT  |
|----------|------------------------------------|---|---|
| 8        | 回流焊<br>Reflow                      | <p>260°C±5°C</p> <p>150°C±5°C</p>  <p>CYCLE TIME周期: 200 sec Max.</p>  | <p><math>\Delta FL \leq \pm 5 \text{ ppm}</math></p> <p><math>\Delta RS \leq 5 \Omega</math> or <math>\pm 15\%</math><br/>(Whichever is Larger)</p> <p>No Rusty</p> |
| 9        | 引脚拉力(SMD型)<br>Pin pull             | <p>按照要求分别提供1.8kg的切向推力（60秒）以及1.8kg的垂直拉力（60秒）</p> <p style="text-align: right;">In</p> <p>accordance with the requirements, offering 1.8kg tangential thrust (60 seconds), and 1.8kg vertical pull (60 seconds) respectively.</p> | <p>电极不断裂</p> <p>No Rupture Observed</p>   |
| 10       | 老化<br>Aging                        | <p>温度:85°C;时间:1000小时</p> <p>Temp:85°C;Times:1000h</p>   | <p><math>\Delta FL \leq \pm 10 \text{ ppm}</math></p> <p><math>\Delta RS \leq 5 \Omega</math> or <math>\pm 10\%</math><br/>(Whichever is Larger)</p>                |
| 11       | 可焊性 solderability                  | <p>温度: 235°C±5°C; 时间: 2秒</p> <p>Temperature: 235°C±5°C; Time: 2sec</p>  | <p>浸锡率≥95%</p> <p>Solder Coverage≥95%</p>   |
| 备注       | 可靠性项目中的4、5、6、10，需在试验结束后24±2小时进行测试。 |   |   |