



TAE雅晶

序号Serial No. 2019010916

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 (TXM16.000M2503FDCE-O00T)

标称频率NOMINAL FREQUENCY: 16.000MHz /12PF +/-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	
日期DATA	
接收RECEIVED	

浙江雅晶电子有限公司
ZheJiang ABEL Electron Co.,Ltd.

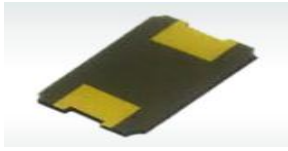
浙江省台州经济开发区经一路655号
655 JingYi RD. Economic Developing Zone TaiZhou,ZheJiang,China
电话/Tel:0086-576-89025257/89025258/18305768201
传真/Fax:0086-576-88501859 Post Code:318000
[URL:www.taecn.com](http://www.taecn.com)
Email: market@taecn.com tae@taecn.com

拟制Prepared by: 应金会

批准Confirmed by: 王琴飞

RoHS Compliant Standard

T-5032-2PIN-GLASS

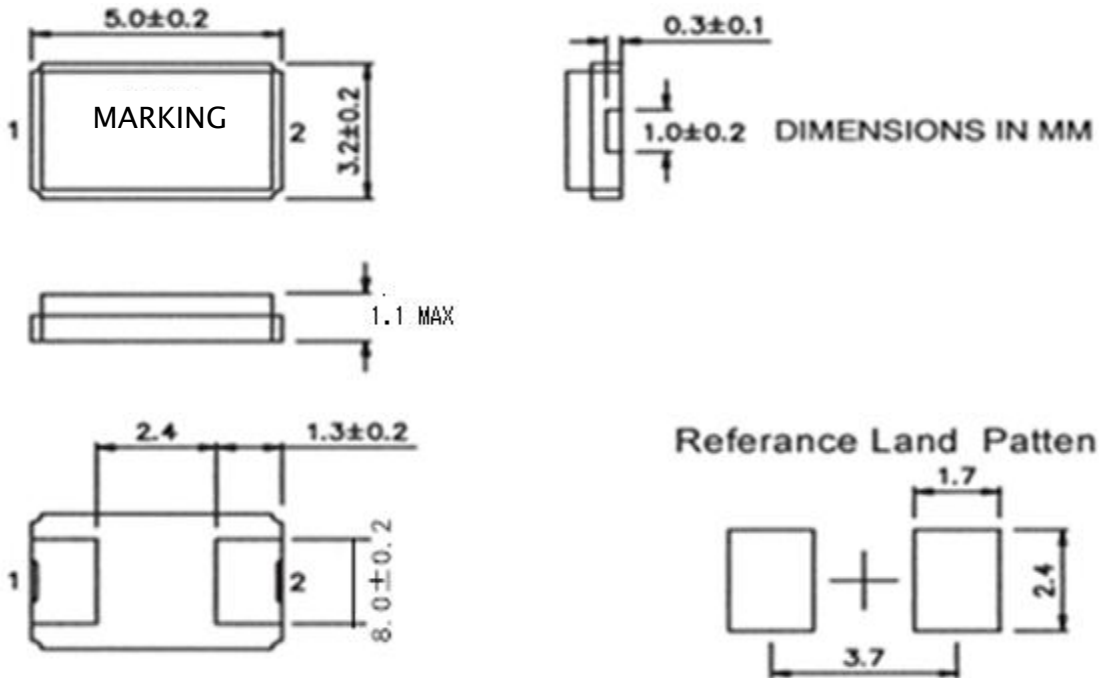


Features 特性

- Nominal Frequency 标称频率: 16.000MHz
- 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	16.000MHz	
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	50Ω Max	
Load Capacitance	負載電容	12pF	
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 NO	项目 ITEM	条件 CONDITIONS	合格标准 BASIS OF VERDICT
1	跌落 Drop	100cm高处自由跌落到3cm厚硬木板上,3次 High:100cm;Thickness:3cm;3 times	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$ (whichever is larger)
2	振动 Vibration	频率 Frequency: 10~2000Hz; 加速度幅度 Acceleration: 100 m/s ² 振动方向 Direction: X, Y, Z 振动时间 Duration: 每个方向30分钟 30 min/direction. 循环次数 Times: 12次	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$ (Whichever is Larger)
3	热冲击 Thermal shock	-55°C~+125°C, 1000个循环 最大转换时间: 5分钟; 停留时间: 5分钟 -55°C~+125°C, For 1000 cycles Maximum conversion time: 5 minutes;Remain time:5 minutes	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
4	湿热 Humidity	温度:85°C;湿度:85%;时间:1000小时 Temp:85°C;Humidity:85%;Times:1000h	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
5	低温 Cold resistance	温度:-40°C;时间:1000小时 Temp:-40°C;Times:1000h	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
6	湿度抗性 Humidity 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 High-Temperature: 65°C \pm 2°C (10 hours, including heating), Low-Temperature: 25°C \pm 2°C (2 hours, including cooling), Humidity: 90%, for 10 cycles (24 hours/cycle)	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
7	机械冲击 Mechanical shock	峰值 Peak: 100g's 持续时间 Duration: 6ms 波形 Waveform: 半正弦波 Half-sine 变化速度 Velocity Change: 12.3 ft / sec 振动方向 Direction: +X, -X, +Y, -Y, +Z, -Z 每个方向各3次 3 times/direction	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$ (Whichever is Larger)

序号 NO	项目 ITEM	条件 CONDITIONS	合格标准 BASIS OF VERDICT
8	回流焊 Reflow	<p>260°C±5°C</p> <p>150°C±5°C</p> <p>CYCLE TIME周期: 200 sec Max.</p>	<p>$\Delta FL \leq \pm 5 \text{ ppm}$</p> <p>$\Delta RS \leq 5 \Omega$ or $\pm 15\%$ (Whichever is Larger)</p> <p>No Rusty</p>
9	引脚拉力(SMD型) 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 Aging	<p>温度:85°C;时间:1000小时</p> <p>Temp:85°C;Times:1000h</p>	<p>$\Delta FL \leq \pm 10 \text{ ppm}$</p> <p>$\Delta RS \leq 5 \Omega$ or $\pm 10\%$ (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。		