



深圳市凯越翔电子有限公司

石英谐振器规格书

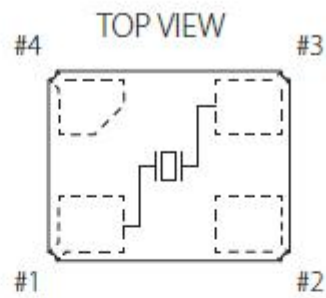
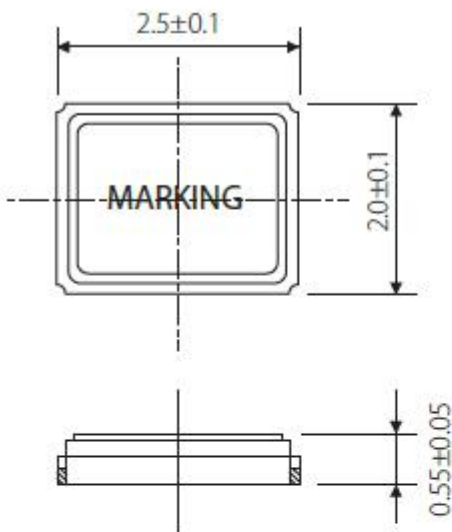
产品名称:	石英晶振谐振器
产品型号:	2520/32.000 MHZ
产品参数:	16PF/±10ppm
原厂型号:	K2C320001610
凯越翔技术部:	董宗全

客户确认印栏

认证印章	负责人印章
年 月 日	年 月 日

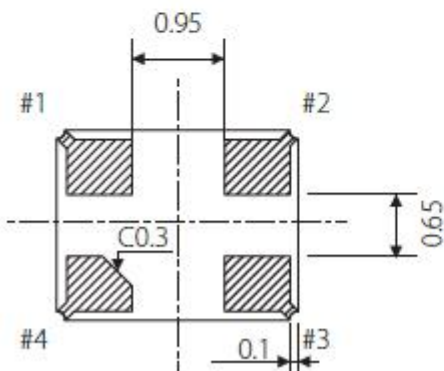
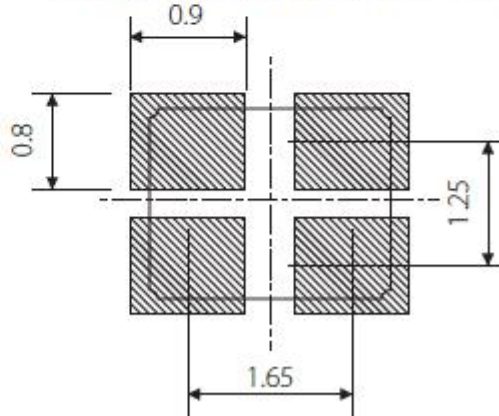
本规格章程连同本页合共 5 页

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|------------------------------------------------|---------------------------------------------------------------|
| 1. Frequency: | 32.000 MHZ |
| 2. Holder Type: | SMD2.5*2.0 |
| 3. Frequency Tolerance: | $\pm 10\text{ppm}$ at $25^\circ\text{C} \pm 3^\circ\text{C}$ |
| 4. Equivalent Series Resistance: | 40 Ω Max |
| 5. Storage Temperature Range: | $-40^\circ\text{C} \sim +85^\circ\text{C}$ |
| 6. Operating Temperature Range: | $-40^\circ\text{C} \sim +85^\circ\text{C}$ |
| 7. Frequency Characteristics Over Temperature: | $\pm 20\text{ppm}$ $-40^\circ\text{C} \sim +85^\circ\text{C}$ |
| 8. Load Capacitance (CL): | 16 PF |
| 9. Drive Level: | 100 μ W |
| 10. Shunt Capacitance: | 3PF MAX |
| 11. Insulation Resistance: | $\geq 500\text{M}\Omega$ Min at 100 V |
| 12. Mode Of Oscillation: | Fundamental |
| 13. Aging: | $\pm 3\text{ppm}/\text{Year}$ |
| Marking description: | KYX32.000 |
| 14. Dimensions(mm): | |



• #1,#3 : Crystal terminal / #2,#4 : Connected to cover
(Please connect it with GND)

Example of a Terminal Land Pattern



16. Structure Illustration



PART NAME		MATERIAL	PART NAME		MATERIAL
1.	BASE	CERAMIC	4.	ELECTRODE	Metal
2.	LID	Co	5.	ADHESMES	SILVER GLUE
3.	BLANK	QUARTZ			

凯越翔晶振

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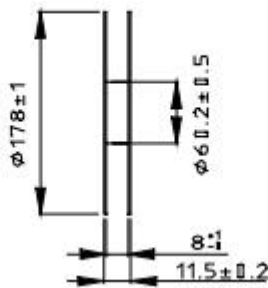
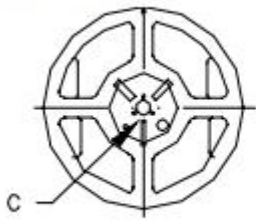
Reliability Testing 可靠性测试项目介绍

项目	验条件及要求	要求
Vibration 振动	Endurance condition by a frequency sweep shall be made. The entire frequency range from 10HZ to 50HZ and return to 10HZ, shall be transverse in 1min. Amplitude(total excursion):1.5mm this motion shall be applied for a period of 2h each of 3 mutually perpendicular axes(a total of 6h) 振动频率: 从 10HZ 到 55HZ, 再回到 10HZ 1 倍频程/min 幅度为 1.5mm 3 个相互垂直的方向各 2 小时	
Drop 跌落	Form 70cm height 3 times on 3cm hard wooden floor 从 70cm 高处跌落到 3cm 厚的硬质木板上, 重复 3 次	(1). FL: +/-10ppm (2). Rr: +/-10 Ω
Shock 冲击	Peak acceleration:981m/s ² duration of the pulse :6ms three successive shocks shall be applied in both direction of 3 mutually perpendicular axes(a total of 18 shocks) 加速度: 981m/s ² 时间: 6ms 作用在 3 个相互垂直的方向	
Damp heat, constant 恒定湿热	The unit shall be stored at a temperature of 40℃ ±2℃ with relative humidity of 90%to95% for 48h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. 在温度: 40℃ ±2℃、湿度: 90%to95%条件下存放 48 小时, 然后在标准大气压下放置 1~2 小时后测试	
Cold 低温存储	The unit shall be stored at a temperature of -40℃ ±5℃ for 48h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. 在 -40℃ ±5℃ 下存放 48 小时, 然后在标准大气压下放置 1~2 小时后测试	(1). FL: +/-10ppm (2). Rr: +/-10 Ω
Dry heat 高温存储	The unit shall be stored at a temperature of 100℃ ±5℃ for 24h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. 100℃ ±5℃ 下存放 24 小时, 然后在标准大气压下放置 1~2 小时后测试	
Aging 老化	The unit shall be stored at a temperature of 85℃ ±5℃ for 7d then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. 85℃ ±5℃ 下放置 7 天, 然后在标准大气压下放置 1~2 小时后测试	
Temperature cycling	The unit shall be subjected to 5 successive change of temperature cycles, each as show in table below, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made 在下表给定温度和时间参数的条件下循环 5 次, 标准大气压下放置 1~2 小时后测试	

温度循环	Temperature 温度	Duration 放置时间
	1 -40°C ± 3°C	30min (30 分钟)
	2 Standard conditions 标准大气压	Within 30s 30 秒内
	3 100°C ± 3°C	30min (30 分钟)
	4 Standard conditions 标准大气压	Within 30s 30 秒内

Resistance to soldering heat 耐焊接热	<p>250°C 217°C 200°C 150°C 25°C</p> <p>Peak 10s Max +4°C/s Max preheating 60-to-120s -6°C/s Max cooling 40-to-90s 25°C to peak: 360s TIME (Seconds) Total: 420s 使用回流焊方法见上图</p>
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2. REEL : 3000 PCS



拟制	成望生	审核	董宗全	批准	谢为亮
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