

DATE: 2013-11-07

SPECIFICATION FOR PRODUCT

PART NAME: 石英晶体振荡器

CUSTOMER NAME: _____

CUSTOMER PART NO.: XO32-YAGRC-32.768KHz



北京晶宇兴科技有限公司

Beijing JingYuXing Technology Co., Ltd.

地址: 北京海淀区知春路 128 号泛亚大厦 1795 室

邮编: 100086

E-mail: wjb@jfvny.com

电话: 86-10-62579008

传真: 86-10-62576867

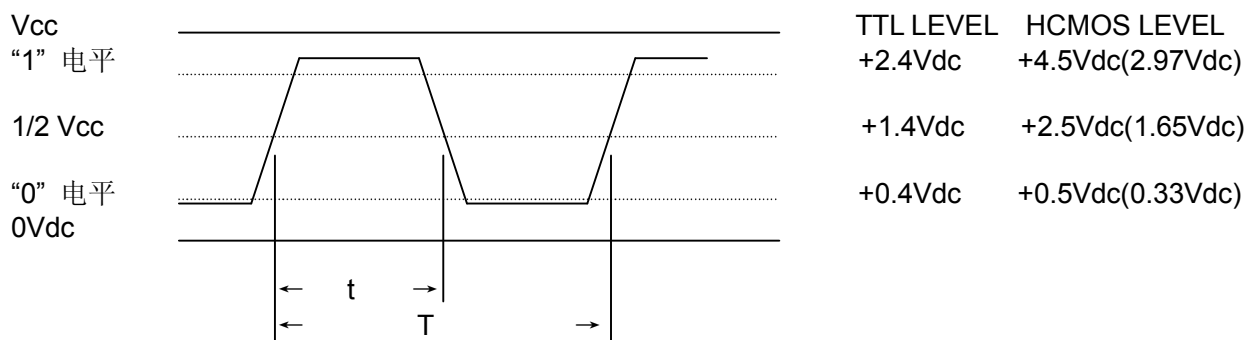
联系人: 王佳彬

手机: 13501246988

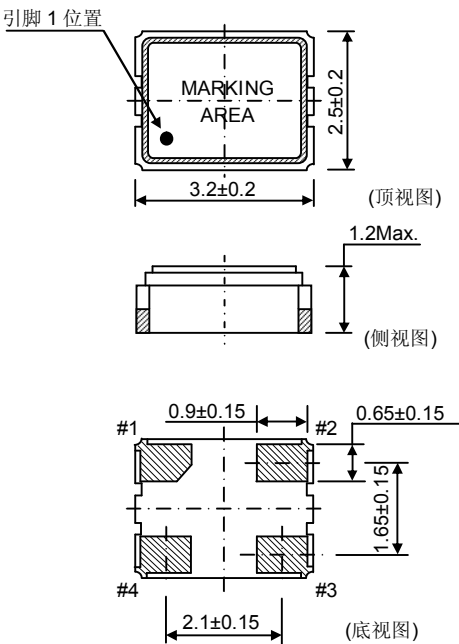
本产品是由水晶片、集成电路组合而成，金属外壳密封的超小型振荡器，广泛用于各种精密电子仪器。
This Oscillator is used in all kinds of precision instruments, consisting of crystal and one chip IC.

1. Model	型号	XO32-YAGRC-32.768KHz
2. No. of specification	规格书编号	XO32-YAGRC-32.768KHz 1/7
3. Specification	规格	

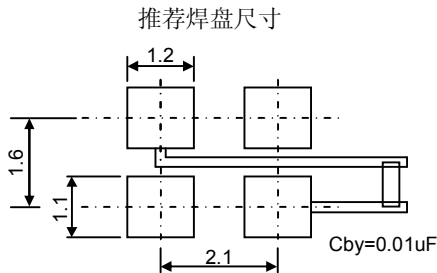
1. PRODUCT	品名	SMD Crystal Oscillator
2. TYPE OF HOLDER	型号	XO32-YAGRC-32.768KHz
3. FREQUENCY OPERATING	频率	32.768KHz
4. TEMPERATURE	操作温度	-20℃ to +70℃
5. STABILITY OF OPERATIY TEMP	稳定性	±25PPM at-40℃ to +85℃
6. STABILITY TEMP. RANGE	储藏温度	-55℃ to +125℃
7. SUPPLY VOLTAE	工作电压	+3.3Vcc±10%
8. SUPPLYCURRENT	工作电流	5mA MAX.
9. SYMMETRY	输出对称性	45%~55%
10. OUTPUT"0"LEVEL	出力“0”电平	10%Vdd MAX
12. OUTPUT"1"LEVEL	出力“1”电平	90%Vdd MIN
13. Tr & Tf	上升/下降时间	10nsec MAX
14. LOAD CAPACITANCE	负荷容量	CMOS 15pF
15. ENABLE DISABLE	生效，失效	YES
16. AGING (First Year)	老化率	5.0×10^{-6}
17. Startup time	启动时间	10 ms



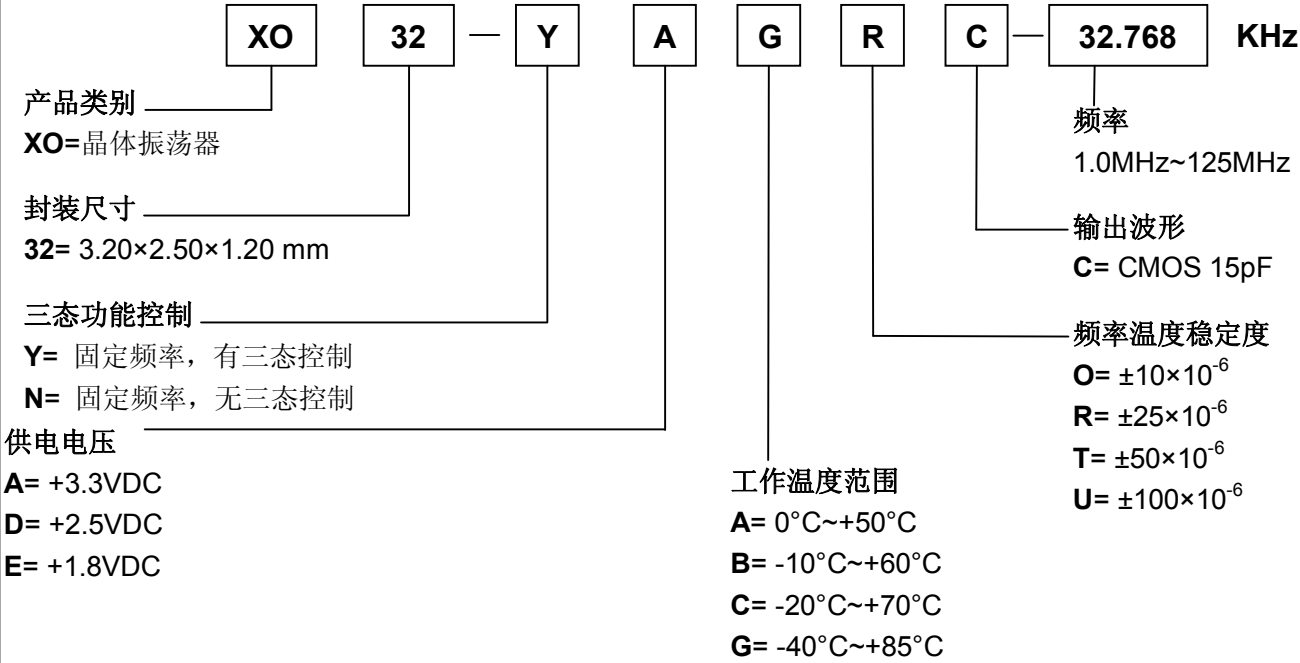
4. Outline Drawing (mm) 尺寸图 (单位: 毫米)



引脚	功能
#1	三态功能
#2	接地
#3	输出
#4	电源

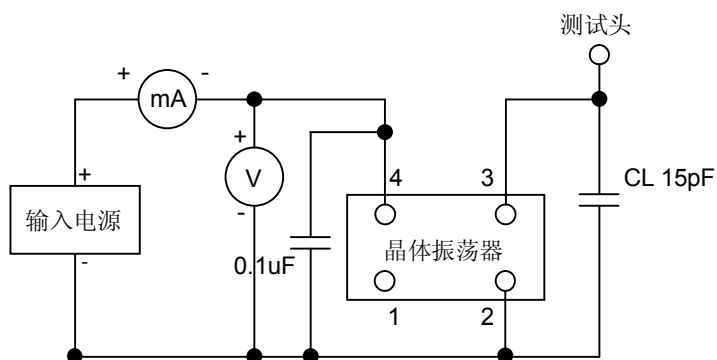


5. Ordering Information 选型指南



6. TEST CIRCUIT 测试电路

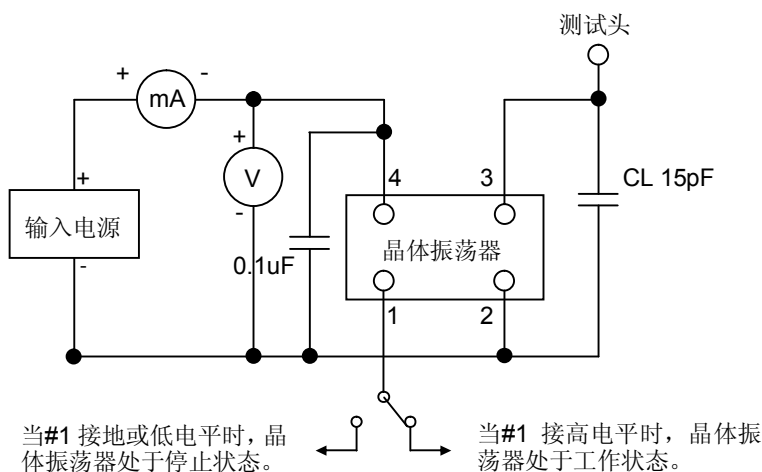
6.1. 非三态功能推荐测试电路:



注意#1 接法。非三态时悬空。

例：当选型为：XO32-**N**AGRC-32.768KHz 时，产品不具有三态功能，#1 应为悬空。

6.2. 三态功能推荐测试电路:



例：当选型为：XO32-**Y**AGRC-32.768KHz 时，产品具有三态功能，可选择此电路图。

6.3. 选型注意事项:

- 6.3.1 当您选择三态功能产品，但不想用此功能时，可直接将#1 悬空或接高电平。注意，不要接地，否则产品无输出。
- 6.3.2 非三态产品不可转换为三态产品使用。

7. 机械特性 Mechanical Characteristics

7-1 耐振动性: 在振幅为 1.52mm, 15 克压力, 频率 10~2000Hz 的条件下, 持续 20 分钟后, 各测试一次, 产品达到 4.规格标准。

Vibration: After following test, frequency shall not change more than NO. 4specification.

Test condition: Frequency: 10-55Hz

Amplitude: 1.52mm

Cycle time: 1-2 min ($10\sim 55^{+10}$ Hz)

Duration: 3 mutually perpendicular planes in each 1 time.

7-2 耐冲击性: 冲击加速度 1000 克, 冲击时间 0.5msec, 从半波、正弦波、直角三个方向各测试一次, 产品达到 4 规格标准。

Shock: After following test, frequency shall not change more than NO.4 specification.

Test condition: Acceractor of shock: 1000g,

Time of shock: 0.5msec.

Duration: 3 mutually perpendicular planes in each 1 time.

7-3 自然下落:从硬质木板上方 50 厘米高处自然下落三次, 检测产品, 符合 4 规格标准。

Naturally Falling: After following test, frequency shall not change more than NO.4 specification.

Test condition: Dropped from high of 50cm onto hardwood surface in 3 times.

7-4 焊接效果: 在+260℃±5℃的焊接槽内, 浸泡 10±1 秒后, 检测产品, 符合 4 规格标准。

Soldering Effect: After following test, frequency shall not change more than NO.4 specification.

Test condition: Temp: 260±5℃

Time: 10±1ns

7-5 耐湿度: 在温度+40℃±2℃, 相对湿度 90~95%的条件下放置 24 小时后, 检测产品, 符合 4 规格标准。

Humidity Resistance: After following test, frequency shall not change more than NO.4 specification.

Test condition: Temp: +40℃±2℃

Humidity: 90~95%

Time: after 24h

7-6 耐热度: 在-40℃~+85℃的温度下各 30 分钟为一周期, 共测试 10 个周期后, 检测产品符合 4 规格标准。

Heat Resistant: After following test, frequency shall not change more than NO. 4 specification .

Test condition: Temp: -40℃~+85℃ with in 30 min / 10 times.

7-7 耐溶剂性: 在 IPA 溶液中浸泡 30 分钟后, 检测产品, 符合 4 规格的标准。

Chemical resistance: After following test, frequency shall not change more than NO. 4 specification.

Solution: IPA

Time: 30min

8. 免费更换期限: 从购买本产品之日起, 2 年内因产品原因引起的质量问题, 由我公司负责更换。
Free change validity: Concerning our products or parts which are produced by us and then deliver to you, if there were happened any dispute such as the matter of quality, we will change the product.
9. 检测成绩书: 不添加
Test Data : Did not attached.
10. 使用注意事项 Notes for usage
- 10-1. 电源 Power supply
本产品需使用有接地的电源。This product needs power supply with safe ground.
- 10-2. 末端使用注意事项 Caution of PAD
This products using of metalieed for soldering, We can not ensure only one time of soldering.
- 10-3. 下落性能 Shock resistance.
本产品是冲击或跌落强烈, 该产品的设计是三次自然跌落。但是, 当不小心跌落时, 请重新检测, 或要求我公司重新检测。
This product is designed for 3 times of shock, when the product was dropped underground, then pleas retest or request to our company for retest.
- 10-4. 静电对本产品的影响 The effects of static for the product.
本产品中含有能动素子, 在 C-MOS IC 条件下使用, 因此, 请在防静电环境下使用本产品。
This product using active component, and C-MOS IC, please using under antistatic condition.
- 10-5. 耐高温性 Endurance of high temperature.
本产品不能保证在 125℃温度下放置 24 小时。请注意在储存温度范围内保存本产品。
We can not ensure to storage under 125℃ still 24h. Please storage under the temperature stated in this specification.
- 10-6. 保存期注意事项 Period of storage for soldering.
长时间放置能使本产品的支架, 防止其腐蚀, 及长期保存所造成的损害。保存期限应在半年以内。
Long period storage will damage the pad of oscillator. The period of storage should be in half year.
- 10-7. 超音波洗净 Ultrasonic cleaning
本产品如需要超音波洗净时, 请注意水晶振动力有破损。
If using the ultrasonic cleaning, please caution damage of the crystal.
11. 包装形式: 包装图 Package: Please see the package drawing.
12. 其他 Others
- 12-1. 使用期间出现以上说明书中没有规定的情况时, 请确认后再使用。
Use after confirmation, when there are under the conditions not illustrated in above specification.
- 12-2. 本产品的规格, 材质, 制造工程或管理系统等有变更时, 我公司事前将产品的品质, 信赖性数据向客户提供。
If there are the change of specification, material and process, we will supply the data of quality and reliability.
- 12-3. 如果客户对产品的规格有变更要求, 请在交货期前 3 个星期内通知我公司。
If the customer have the request of the change of specification, then inform us within 3 weeks before delivery.