

深圳扬兴科技有限公司

产 品 规 格 书

SPECIFICATION

产品名称	石英晶体谐振器 QUARTZ CRYSTAL UNITS
产品系列	YST310S
料 号	XKXII-SUA-32.768K
参数描述	SMD-3215-32.768KHZ-6PF- ±20PPM
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确 认 签 章

客 户		
客户物料号		
机种/型号		
批 准	审 核	检 验

扬 兴 签 核

制 定	审 核	批 准
周 冰 莹		

深圳扬兴科技有限公司

Shenzhen YangXing Technology Co., Ltd.

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REV. 版本	Description of Revision History 修改内容	Date 日期	Engineer 工程师	Reviewer 审核
V.0	新版页面修改	2020/11/11	马占军	蔡荣洪
V.1	新版页面修改，变更工程师审核人员	2022/03/01	康明红	马占军
V.2	格式修正，印字修改	2023/06/20	钟 帅	黄月华
V.3	外观尺寸图更新	2025/06/13	周冰莹	黄月华

MHz Range Crystal Unit

YST310S

Product Name 系列型号

YST310S 32.768 KHz 6PF ±20PPM

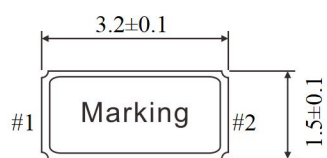
Product Number / Ordering Code 产品料号

XKXII-SUA-32.768K

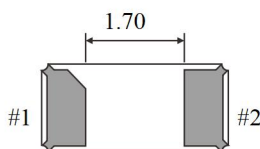
1. Specifications (characteristics) (规格参数)

Parameter (电气参数)	Symbol	Min. (最小值)	Typ. (典型值)	Max. (最大值)	Unit (单位)
Oscillation mode (振动模式)		☒ Fundamental ☐ 3rd			
Cutting mode (切割方式)		☐ AT ☐ BT ☒ X +2°			
Nominal frequency (标称频率)	f _{nom}	-	32.768	-	KHz
Frequency tolerance at 25°C (常温频差)	f _{tol}	-20	-	20	x 10 ⁻⁶
Stability over temperature (温度稳定性)	f _{tem}	-	-	- 0.04	x 10 ⁻⁶ / °C ²
Load capacitance (负载电容)	CL	-	6	-	pF
Equivalent Series Resistance(等效串联电阻)	ESR	-	-	70	KΩ
Shunt capacitance (静态电容)	C0	-	-	2	pF
Level of drive (激励功率)	DL	-	0.1	0.5	μW
Operating temperature (工作温度)	T _{use}	-40	-	85	°C
Storage temperature (储存温度)	T _{stg}	-55	-	125	°C
Frequency aging (老化)	f _{age}	-3	-	3	x10 ⁻⁶ /year

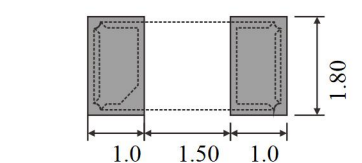
2. External dimensions (外观尺寸) (Unit: mm)



Top View



Bottom View



Recommended soldering Pattern



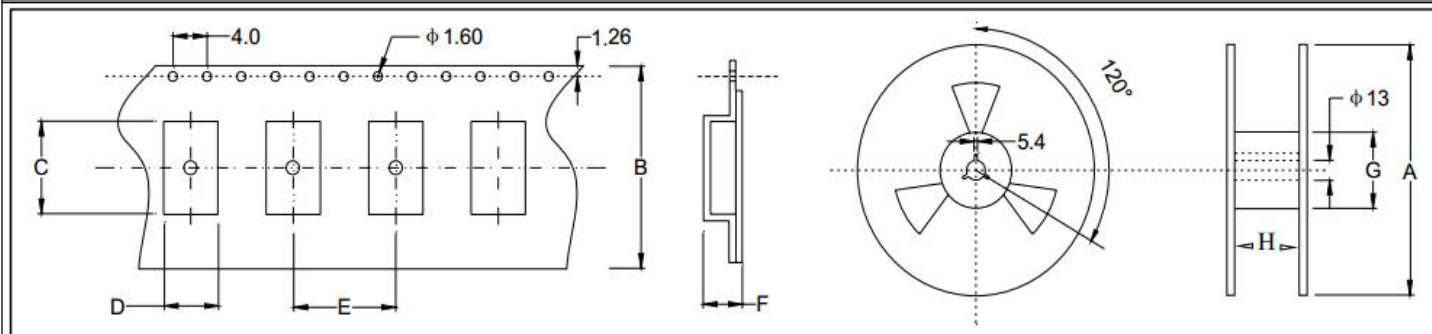
Side View

3. Marking information (丝印说明)

Y	I	4	13	*
①	②	③	④	⑤

- ①YXC LOGO
- ②Load capacitance
- ③Year
- ④Production cycle
- ⑤Line

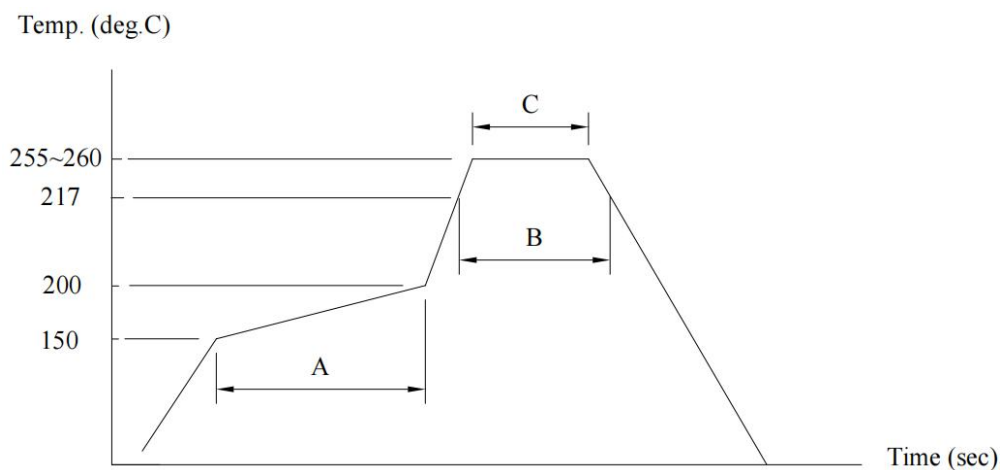
4. Taping Specification (载带规格) (Unit: mm)



Size	A	B	C	D	E	F	G	H
SMD-3215	180 $\pm$ 2.0	12.0 $\pm$ 0.3	3.45 $\pm$ 0.1	1.75 $\pm$ 0.1	4.0 $\pm$ 0.1	0.87 $\pm$ 0.1	61.0 $\pm$ 1.0	13.0 $\pm$ 0.5

3000 pcs per reel

5. Reflow profile (回流焊)



(A)→Preheating area : 150~200°C, 60~120sec.
 (B)→Heating area : 217°C, 60~150sec.
 (C)→Peak temperature : 255~260°C, 30sec. Max.
 Ramp-up rate (217→260°C) : 3°C/sec. Max.
 Ramp-down rate (260→217°C) : 6°C/sec. Max.
 Time 25°C→260°C : 480sec. Max.
 Moisture Sensitivity Level : Level1

6. Notice (注意)

包装 PACKING

包装方式应符合运输和装卸要求，特殊包装须经双方认可。

Packing must prevent damage during transportation and handing. Specific method will be settled by mutual Agreement.

对环境影响 INFLUENCE TO ENVIRONMENT

本产品在生产过程中不使用 ODS I，对臭氧层无破坏。

This product doesn't use the class I ODS at any of production process.

生产厂家 MANUFACTURER

公司名称：深圳扬兴科技有限公司

Shenzhen YangXing Technology Co., Ltd.

其它 OTHERS

1.如果您对本公司产品规格书有疑问或书中未列出，请与我方联系，协商解决及改进。

If you have some doubt or unknowing about this specification, Please contact us for settlement or development.

2.我们按照产品规格书要求保证晶体品质，若客户要求具体数据，我们可提供。

We guarantee that quartz crystal unit satisfies this specification, If you need the data, we will provide it.

3.如需应用于超声波环境下，请与我们联系。

For application in ultrasonic environment, please contact us.

4.变更与联络 (MODIFY AND CONTACT)

本产品在设计、工艺、材料、生产厂所、关键设备、操作人员等影响产品质量的因素有变更时，应事先提供更改后的产品并经过质量认可后，方可大批量供货。

When the quality is changed due to the changes of the design, technology, material, manufacture place, main equipment and workers, we will first supply the modified products and obtain approval from you, then start to supply mass production.

5.售前售后服务 (AFTER SALE SERVICE)

若在生产过程中遇到不良品，本公司负责调换，并及时提交不良品的分析及改进措施报告经认可。

If the defection product was found in the production process, we will exchange and provide the improving measures in time.

此规格书仅供参考。若有需要，请与我方索要正式承认书作为物料承认及质量判定依据。

This specification is for reference only. If needed, please request a formal letter of acknowledgment from our side to serve as the basis for material acknowledgment and quality judgment.

7. Contact us (联系我们)

www.yxc.hk