



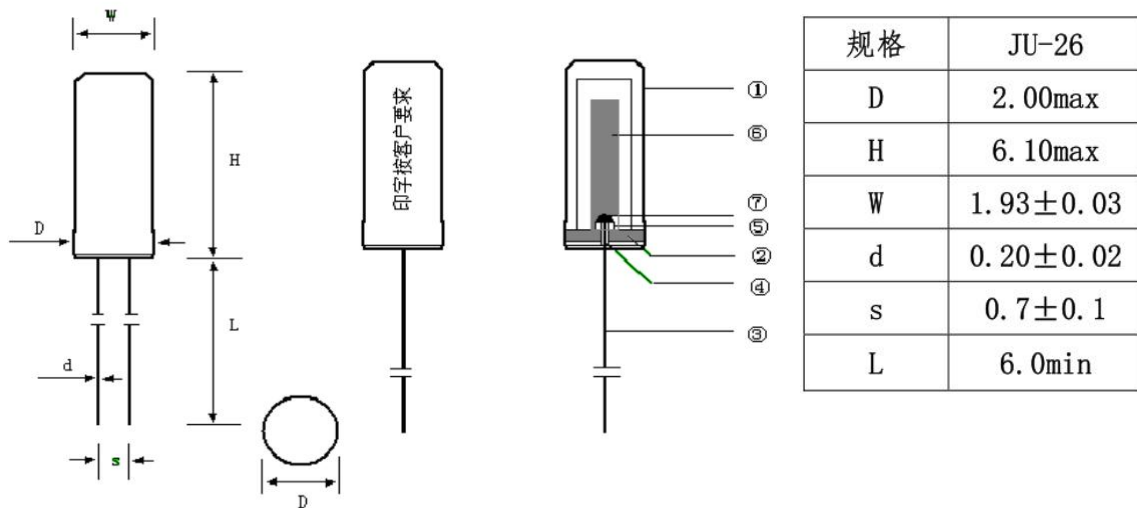


<p>深圳市新天源电子有限公司 Shenzhen Xintianyuan Electronics Co., Ltd.</p>	<p>石英晶体谐振器规格书 Specification of Quartz Crystal</p>	<p>NO: XTY0292-5002</p>
	<p>柱状 JU2×6</p>	<p>Date: 2019/06/12</p>
<p>一、石英晶体规格参数 Quartz Crystal Specification Parameters</p>		
<p>1、产品型号 Holder Type</p>	<p>JU2×6</p>	
<p>2、标称频率 Nominal Frequency</p>	<p>24.000000MHz</p>	
<p>3、振动模式： Mode of Oscillation</p>	<p>Fundamental</p>	
<p>4、调整频差 Frequency Tolerance at 25°C±2°C</p>	<p>±20ppm at 25°C±2°C</p>	
<p>5、等效电阻 Equivalent Resistance(ESR)</p>	<p>≤40 Ω</p>	
<p>6、负载电容 Load Capacitance(CL)</p>	<p>20pF</p>	
<p>7、温度频差 Temperature Characteristics</p>	<p>±20ppm</p>	
<p>8、工作温度范围 Operating Temperature range</p>	<p>-20~+70°C</p>	
<p>9、储存温度范围 Storage Temperature range</p>	<p>-40~+85°C</p>	
<p>10、激励功率 Drive Level</p>	<p>100uW</p>	
<p>11、静态电容 Shunt Capacitance (C0)</p>	<p>&lt;4.0pF</p>	
<p>12、绝缘电阻 Insulation Resistance</p>	<p>≥500MΩ (DC100V±15V)</p>	
<p>13、测试仪器 Measure Instrument</p>	<p>KH1240</p>	
<p>14、年老化率 Aging Rate a Year</p>	<p>≤±3ppm/年</p>	

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## 二、石英晶体尺寸、结构

### Quartz Crystal Dimensions And Structure



NO	NAME	名称
①	CAN	外壳
②	BASE	基座
③	LAND	引线
④	GLASS	绝缘子
⑤	SUPPORT	支架
⑥	BLANK	振子
⑦	RESIN	导电胶

## 三、石英晶体印字

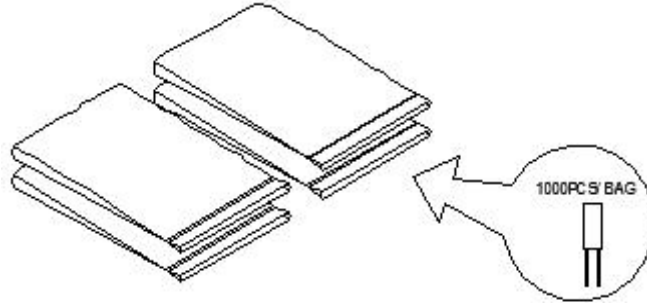
### Quartz Crystal Marking

1. 外观：标识清晰，外表光洁无污点和损伤。
2. 印字：根据客户要求或标准印字。

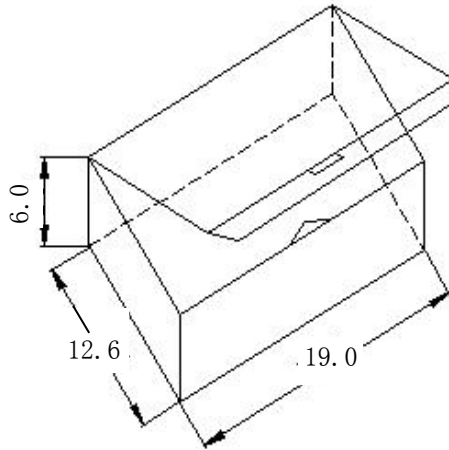
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3. 包装  
Package

1000只/1包  
1000pcs/Bag



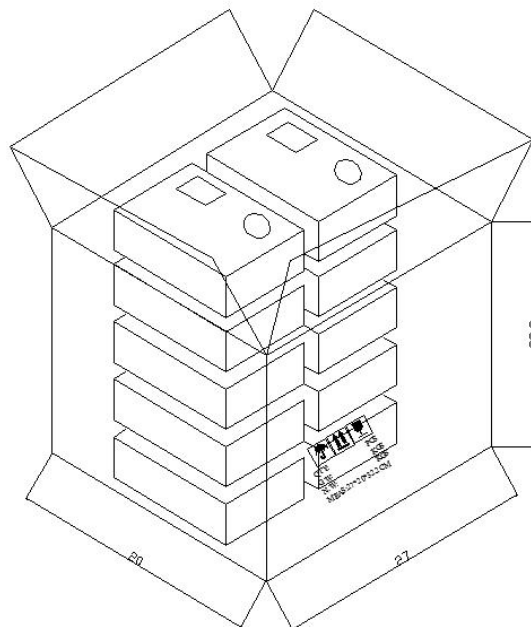
6包=1盒  
6Bag=1Box  
Units: cm



合格证	
频率:	型号:
负载:	电阻:
频差:	数量:
日期:	供应商:
批号:	编号:
订单号:	料号:

包装箱  
Shipping Carton

27\*20\*32.2 (10 Box)  
27\*20\*20 (6 Box)  
Units: cm



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**五、石英晶体可靠性  
Reliability Test**

NO.	测试项目 Test Item	可靠性条件 Testing Condition	判定标准 Determinant Criteria
1.	跌落 Dropping Test	从75cm高度跌落到30mm厚硬木板上, 跌落三次 Drop the resonators from 75cm height to 30mm thick hardwood board, 3times.	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
2.	振动 Vibration	频率 Frequency:10~60Hz; 幅度 Amplitude:0.75mm; 周期 Cycle time:10-55-10Hz: 1min; 振动方向 Direction:X,Y,Z; 振动时间 Duration: 每个方向2小时 2 h/direction.	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
3.	高温 Heat Resistance	温度Temperature: 85°C ±10°C 时间Time: 720 ±24 Hours	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
4.	低温 Cold Resistance	温度Temperature: -20°C ±10°C 时间Time: 720 ±24 Hours	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
5.	引线拉力强度 Tensile strength of terminal	在每个端子, 沿端子轴方向施力500g的拉力30±5秒。 Apply a 500g tensile load to each terminal and sustain it for 30±5 seconds.	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5k\Omega$ (whichever is larger) 无损伤 No visible damage
6.	耐焊接热 Resistance To Soldering Heat	焊接温度Soldering Heat: 260°C ±10°C 测试时间Test Time: 3.5s±0.5s;	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
7.	气密性 Leakage	检漏实验能简化为频率和电阻的测量 The leakage test can be reduced to a measurement of frequency and resistance	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
8.	高温高湿 Constant Temperature and Humidity	在温度40°C ±5°C, 湿度90%~99%, 储存720小时, 取出2小时后测试; Stored at 40°C ±5°C, Humidity 90%~99% For a period of minimum 720hours. Then 25°C ±3°C and 2 hours before testing	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)
9.	温度冲击 Temperature Shock	低温Low-20°C ±2°C (120min) ↔ 高温High85°C ±2°C (120min); 循环10次; For 10 cycles	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\% \text{ or } 5\Omega$ (whichever is larger)