



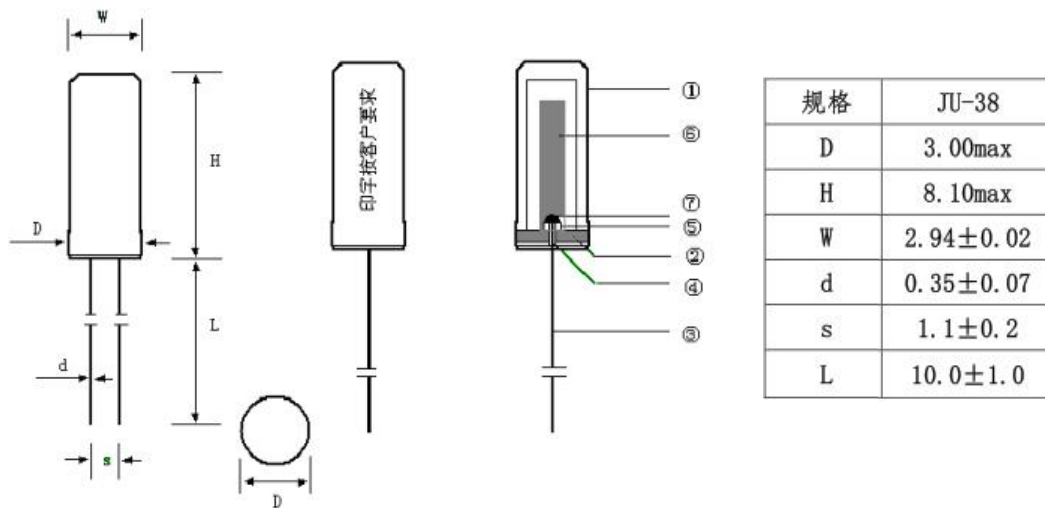


<p>深圳市新天源电子有限公司 Shenzhen Xintianyuan Electronics Co., Ltd.</p>	<p>石英晶体谐振器规格书 Specification of Quartz Crystal</p>	<p>NO: XTY0292-5011</p>
	<p>柱状 JU3×8</p>	<p>Date: 2019/06/12</p>
<p>一、石英晶体规格参数 Quartz Crystal Specification Parameters</p>		
<p>1、产品型号 Holder Type</p>	<p>JU3×8</p>	
<p>2、标称频率 Nominal Frequency</p>	<p>32.768KHz</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>≤30K Ω</p>	
<p>6、负载电容 Load Capacitance(CL)</p>	<p>12.5pF</p>	
<p>7、温度频差 Temperature Characteristics</p>	<p>-0.03×10<sup>-6</sup>/°C<sup>2</sup> Max</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>-30~+85°C</p>	
<p>10、激励功率 Drive Level</p>	<p>1.0uW</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>≥500M Ω (DC100V±15V)</p>	
<p>13、测试仪器 Measure Instrument</p>	<p>专用仪器 Appointed</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

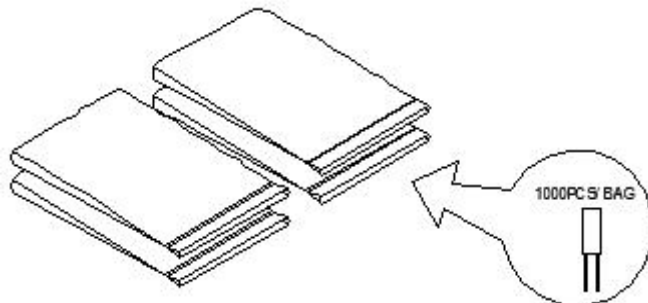
Quartz Crystal Marking

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。

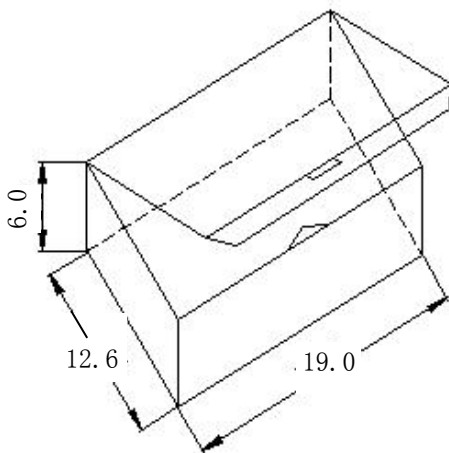
深圳市新天源电子有限公司 Shenzhen Xintianyuan Electronics Co.,Ltd.	石英晶体谐振器规格书 Specification of Quartz Crystal	NO: XTY0292-5011
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3. 包装  
Package

1000只/1包  
1000pcs/Bag



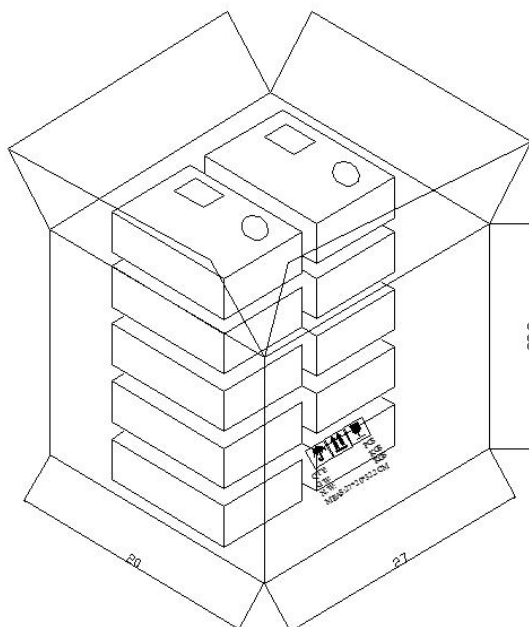
6包=1盒  
6Bag=1Box  
Units: cm



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:

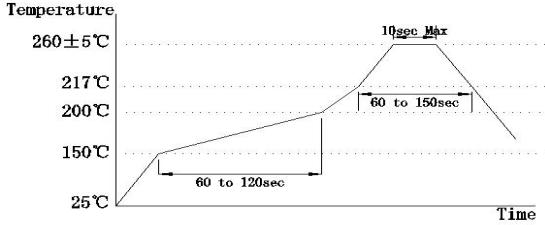
包装箱  
Shipping Carton

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.	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (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.	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)
3.	高温 Heat Resistance	温度Temperature: 125°C ± 10°C 时间Time: 720 ± 24 Hours	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)
4.	低温 Cold Resistance	温度Temperature: -40°C ± 10°C 时间Time: 720 ± 24 Hours	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)
5.	回流焊 (2次) Reflow (2times)	 <p>回流焊Reflow 260°C ± 5°C ≤ 10s</p>	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)
6.	耐焊接热 Resistance To Soldering Heat	焊接温度Soldering Heat: 320°C ± 10°C 测试时间Test Time: 3.5s ± 0.5s;	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)
7.	气密性 Leakage	用氦质谱仪进行检测, 试验气体: He; 真空度: 1×10 <sup>-3</sup> Pa; Helium mass-mass-spectrometer detector, and vacuum and reach 1×10 <sup>-3</sup> Pa;	≤ 1×10 <sup>-8</sup> atm · cc/S
8.	高温高湿 Constant Temperature and Humidity	在温度60°C ± 5°C, 湿度90%~99%, 储存720小时, 取出2小时后测试; Stored at 60°C ± 5°C, Humidity 90%~99% For a period of minimum 720hours. Then 25°C ± 3°C and 2 hours before testing	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger) Appearance OK
9.	温度冲击 Temperature Shock	低温Low-40°C ± 2°C (120min) ↔ 高温High85°C ± 2°C (120min); 循环10次; For 10 cycles	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq \pm 20\%$ or 15k $\Omega$ (whichever is larger)