



HUIJING ELECTRONICS CO.,LTD.  
深圳市汇晶电子科技有限公司



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## SPECIFICATION FOR APPROVAL

### 承认书

Customer Name: 朝阳电子（深圳）有限公司

Customer Part No: 1002-0000092

Product Name: QUARTZ CRYSTAL

Part Description: HC/49SMD 24.576MHZ 20PF +/-10PPM

Date: 2012-06-14

#### CUSTOMER APPROVED BY

1. 高温焊时间 5.5S
2. 产品符合 ROHS 规定。
- 3 产品符合 HSF 规定。
4. 抗静电电压  $\geq 1KV$
4. 焊接温度  $265^{\circ}C$



APPROVER:

深圳市福田区深南中路南光捷佳大厦 3017 室

TEL: 0755-82513855 FAX: 0755-83982016



## 1. Model

HC/49SMD

## 2. No. of specification

## 3. Genera

3.1. Nominal Frequency (F <sub>0</sub> ):	24.576MHz
3.2. Mode of Oscillation (Mn):	Fund (AT Cut)
3.3. Operating Temperature Range (T <sub>0</sub> ):	-20°C~+70°C
3.4. Storage Temperature Range (Ts):	-40°C~+85°C
3.5. Test Set:	S&A 250B-1 S&A 350D
3.6. Drive Level (DL):	0.1mW Max.
3.7. Loading Capacitance (CL):	20pF

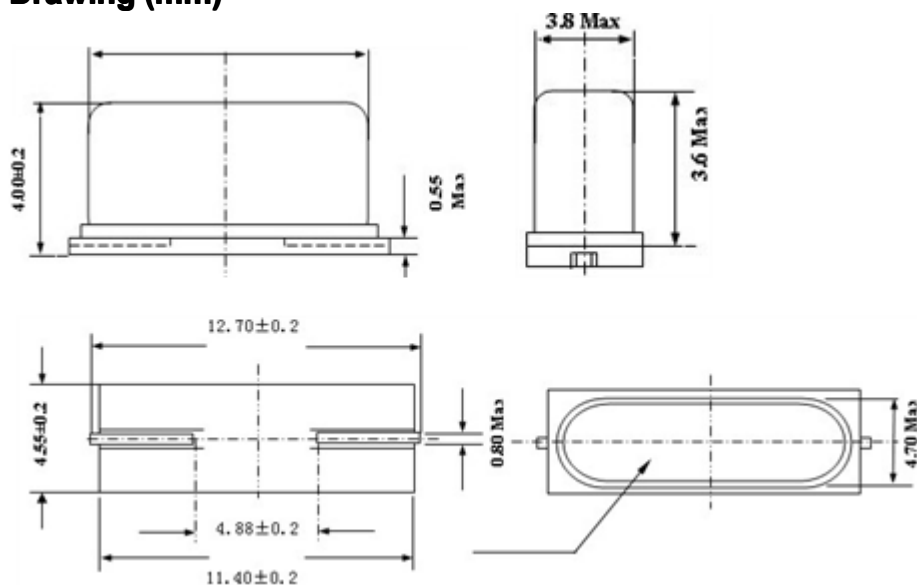
## 4. Electrical Characteristics

**(This test shall be performed under the conditions of temp. at 25±3°C, humidity 60% max.)**

4.1. Frequency Tolerance ( $\Delta F$ ):	±10PPM
4.2. Equivalent Resistance (Rr):	50Ω Max./Series
4.3. Temperature Drift (Tc):	±10PPM Max. / -20°C~+70°C
4.4. Shunt Capacitance (C <sub>0</sub> ):	7pF Max.
4.5. Drive Level Dependence (DLD):	$\Delta R_r=12\Omega$ Max.
4.6. Insulation Resistance (Ri):	More than 500MΩ / 100V±15VDC.
4.7. Aging:	±3PPM Max.



## 5.Outline Drawing (mm)



MARKING:

HJ24.576

## 6. Frequency Stability Over Temperature Range

工作温度范围 /Temperature Range	频率稳定度/Frequency Stability				
	M:±3×10 <sup>-6</sup>	N:±5×10 <sup>-6</sup>	O:±10×10 <sup>-6</sup>	P:±20×10 <sup>-6</sup>	Q:±30×10 <sup>-6</sup>
A:0°C~+50°C	●	●	●	●	●
B:-10°C~+60°C	●	●	●	●	●
C:-20°C~+70°C		●	●	●	●
D:40°C~+85°C				●	●
E:-55°C~+125°C				※	※

※: Specially designated products.



朝阳电子（深圳）有限公司/Zhaoyang Elec. (Shen Zhen) Co., Ltd

原材（物）料检验表/Material Inspect Sheet

品名/Part Name	品振	料号/Part No.	1002-0000092	*第_次试模/T_	模号/Mold NO.	N/A	*生产设备/Machine	N/A
规格/Description	QUARTZ CRYSTAL HC/49SMD	24.576MHZ	20PF +/-10PPM	2012-6-14	*模穴号 Cav. No.	N/A	重量 Weight	0.63g
厂商 Vendor	汇晶	*模具/商/Mold Maker		检验日期 Check Date			生产产地 Produce place	
检查项目/Ins. Item	FL	R	长(L)	宽	高			
规格 Specification	$\pm 10\text{PPM}$	$\leq 50$	12.7mm	4.55	4.00			
公差 Tolerance	$\pm 2\text{PPM}$	$\leq 5$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$			
测定值 Data	1	6.3	7.9	12.72	4.5	3.9		
	2	5.5	6.3	12.54	4.51	3.88		
	3	5.3	7.1	12.64	4.5	3.89		
	4	4.3	8.2	12.65	4.48	3.91		
	5	-2.1	10.2	13.16	4.53	3.97		
判定/ Judgement								
外观记录/Appearance Record	OK			合格/OK		不合格/NG	主管 Approval	曹咏梅
装配记录/Assembly Record	OK			备注 Remark				郑玉娟

\*\_仅对属于本厂模具或有指定时方填写/\*\_Only for factory mold need