

深圳市晶科鑫实业有限公司

样品承认书

客户代码:	
物料名称:	49S 贴片晶振
规格型号:	49SSMD 12.000MHz 20PF ±20PPM -20~70℃
P N/ SJK:	6CSS12000F20UBG
环保属性:	☒ RoHS ☒ REACH ☒ HF ☐ PAHS ☐ 其它
版 次:	A1 2017-5-10 初版
湿敏等级:	一级

承 认 签 章					
供 应 商 承 认			() 公 司 承 认		
制 定	审 核	核 准	工 程 师	审 核	批 准
贺丹斌	李相同	刘惠光			
SJK 支持			盖章签署		
FAE_EMAIL			日 期		
日 期			批示： ☐ 接受 ☐ 有条件接受		
备注:					

电话: 0755-82507042 传真: 0755-88353718

<http://www.q-crystal.com.cn>

公司地址: 深圳市龙岗区天安云谷产业园一期3栋C座12楼1204~1206室

Quartz Crystal Unit

HC-49SMD/SSMD 6CSS Series



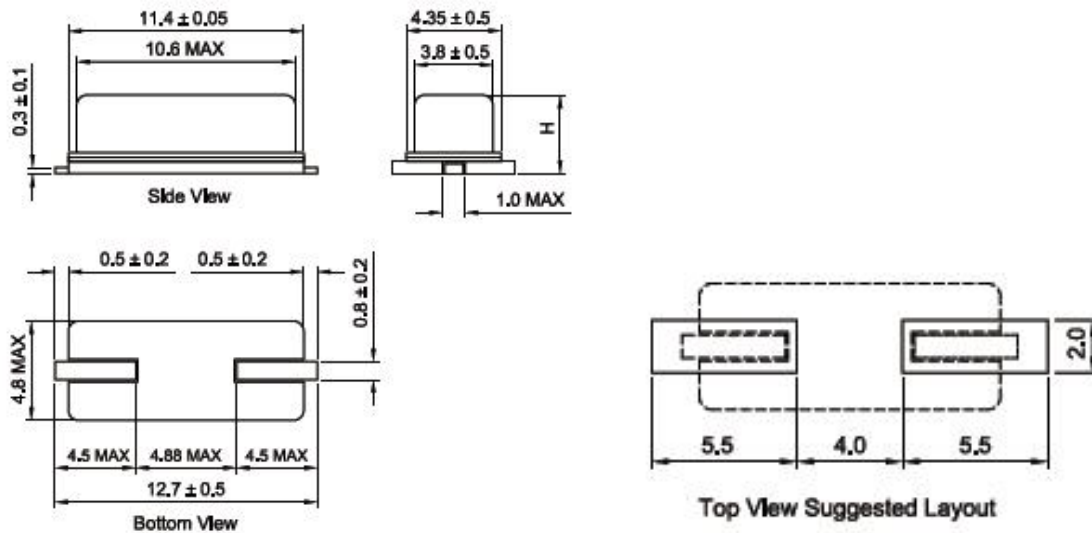
FEATURE

- Surface mount type crystal units.
- A great number of standard frequencies.
- Higher frequency pullability and lower equivalent series resistance.
- Highly mass production capability.
- The best choice of TV,STB,LCDM and Cabbie Modem.
- RoHS Compliant/Pb Free.

ELECTRICAL SPECIFICATIONS

Nominal frequency	12.000MHz
Oscillation mode	Fundamental
Load capacitance	20pF
Frequency tolerance	$\pm 20\text{PPM}$ at $25\pm 3^{\circ}\text{C}$
Equivalent series resistance	$30\ \Omega$
Operating temperature range	$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$
Storage temperature range	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Frequency Stability Over Operating Temperature	$\pm 30\text{PPM}$
Parallel capacitance(C_0)	7PF Max
Drive level	100 μW
Insulation resistance	More than $500\text{M}\ \Omega$ AT DC100V
Aging	$\pm 5\text{ppm/year}$

Dimension (Unit: mm)



TYPE	H	
SMD	4.0 ± 0.2	
SSMD	3.0 ± 0.2	✓

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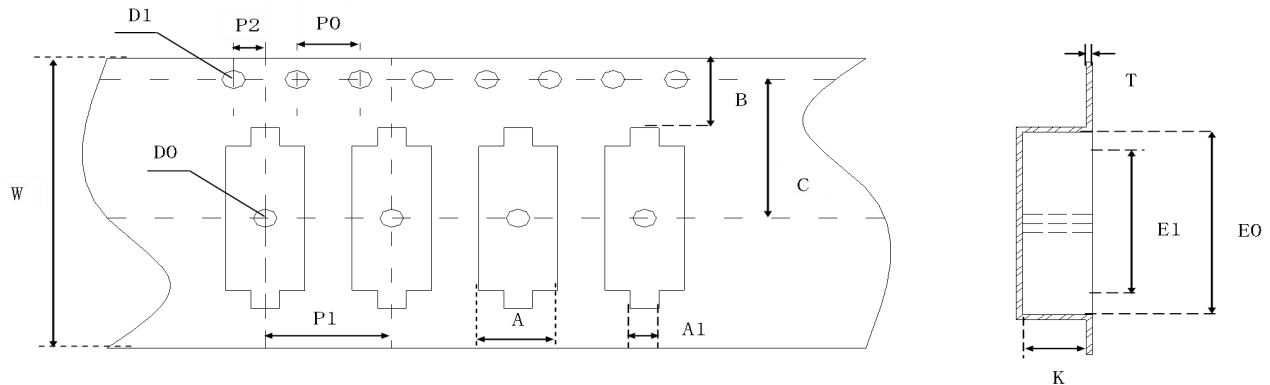
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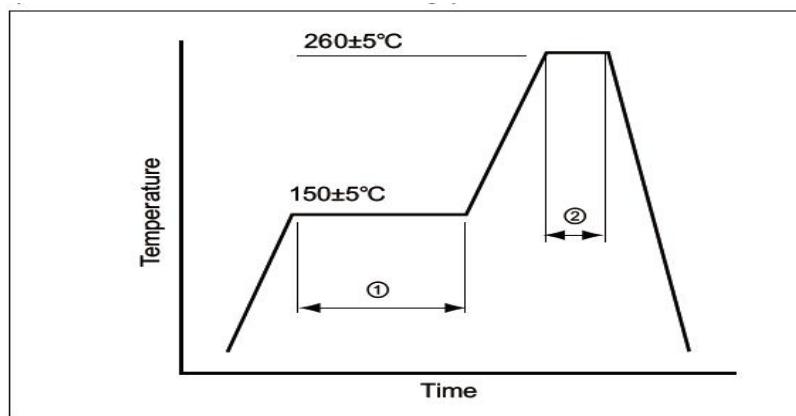


SMD BREDE SPECIFICATIONS (SMD 编带尺寸)



Symbol	A	A1	B	C	Do	E0	E1
Dimensions	5.0 ± 0.2	1.8 ± 0.1	5.25 ± 0.2	11.5 ± 0.1	1.5 ± 0.1	15.0 ± 0.1	12.0 ± 0.1
Symbol	P0	P1	P2	W	T	K	
Dimensions	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	24.0 ± 0.5	0.4 ± 0.05	4.35 ± 0.2	

Reflow Condition



①	Preheat	$150 \pm 5^\circ\text{C}$	120sec.
②	Peak	260°C	10sec. max.

Total time 200sec. max. Solder melting point: 185°C

The reflow temperature profile may vary depending on the product model, specifications and frequency range. Refer to the individual product specifications for details.

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RELIABILITY TEST SPECIFICATION

Test item	Equipment	Condition	Specification
1. TERMINAL STRENGTH TEST	Pull equipment	1. 10N FORCE IN AXES OF TERMINATION 10±1SEC 2. 2.5MM FROM TERMINAL, BEND 90°	'1. MIL-STD-202F,METHOD 211A
2.SOLDERABILITY TEST	SJK-REL001、RC-328A	1.solderability:235±5℃, 5±0.5S 2.heat resistance:260±5℃,10±1S restoration of 1 hour	'1. MIL-STD-883CMETHOD 2003.7 2. MIL-STD-202F,METHOD 210A
3. HERMETICITY TEST	UL-306S	small and do not control roughly (hubble-bubble machine); Nothing air bubble creation s thin leave out 1 * 10 E-8 ATM.CC/SEC.	MIL-STD-883C METHOD 1014.9
4. VIBRATION TEST	HG-V4、S&A 250B	Enable Crystal(10g) from 10-55-10Hz,X、Y、Z horizontal,1 Minute vibration/time, 1time/ 2 hours.	JIS C5025 TESTMIL-STD-883C,METHOD 2007.2
5. MECHANICAL SHOCK	HPC-200、S&A 250B	Enable Crystal 50G(490m/s ²) time=11 ms speed=3.4 m/s half sine wave oscillation	JIS C5026 MIL-STD-883C,METHOD 2002
6. DROP TEST	HARD BOARD.S&A250B	75CM HIGH,3 TIMES ON HARD BOARD	'JIS C6701
7. SALT SPRAY	H-SST-60、RC-328A	5% NaCL,35℃ ±2℃ CHAMBER,48 hrs. , PH:6.5~7.2	JIS C5028 & MILSTD202F'METHOD 101D
8. HIGH&LOW TEMP STORAGE TEST(Static test)	H-PTH-80CK & HM101-3ABN, S&A 350B/250B	High temperature: 125℃±2℃,1000hr; Low temperature:-40℃±3℃,1000hrs	MIL-STD-883C,METHOD 1011.8& JIS C5030
9. TEMP & HRM CYCLING TEST	H-PTH-80CK CHAMBER , S&A 350B/250B	Temperature:-10℃ ±2℃ ~ 65℃ ±2℃ ,Humidity:93±3%,1 cycle need 24 hrs. 5cycles.	MIL-STD-883C,METHOD 1010.7
10. HIGH TEM. & HUM. STORAGE TEST	H-PTH-80CK CHAMBER , S&A350B/250B	temperature:40℃ ±2℃ , Humidity:85+3,-2%,Store 96 hrs	JIS C5023
11. AGING TEST	H-PTH-80CK CHAMBER , S&A350B/250	temperature: 85℃±2, 1000hrs	JIS C5031

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