

雅晶鑫電子

Shenzhen Yajingxin Electron Co.,Ltd

Customer	
Production Name	CRYSTAL SEAM 49/S
Customer P/N	N/A
P/N	T49S16MCDDE2X
Revision	A
Print Date	2023-11-23

Drawn	Checked	Approved
		



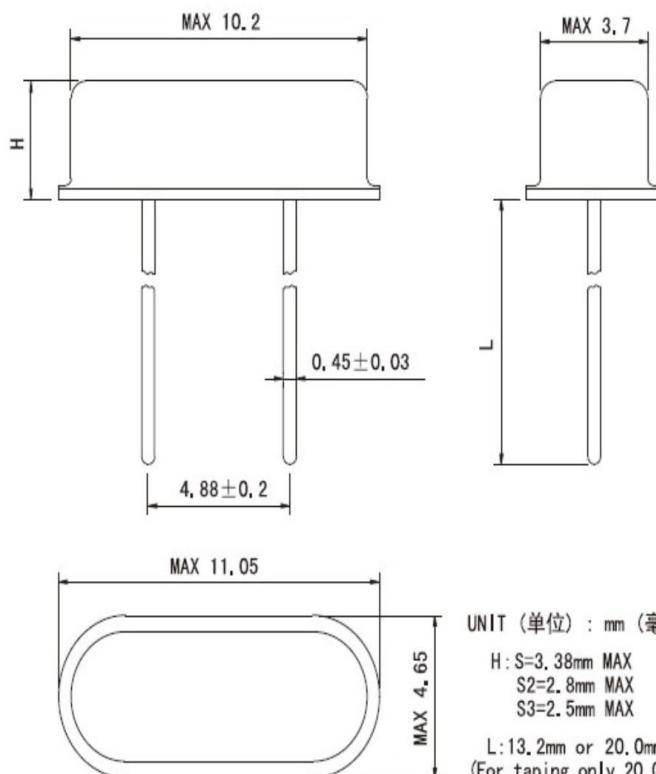
RoHS Compliant

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● ELECTRICAL PARAMETERS

谐振器产品技术指标	Min	Max	Units
1. Holder Type(型号规格)		SEAM 49S	
2. Mode of Oscillation (振动模式)		Fundamental	
3. Frequency (标称频率)	16. 000000		MHz
4. Load Capacitance (CL) (负载电容)	9		pF
5. Drive Level (激励功率)	100		uw
6. Equivalent Resistance (谐振电阻)	40		Ω
7. Shunt Capacitance (Co) (静态电容)	0	7	pF
8. Motional Capacitance (C1) (动态电容)	N/A		fF
9. Frequency Tolerance at 25°C (调整频差)	-20	20	ppm
10. Stability over operation temperance (温度频差)	± 30		ppm
11. Insulation Resistance (at DC 100V) (绝缘电阻)	500		MΩ
12. Operating Temperature Range (工作温度范围)	-30	85	°C
13. Storage Temperature Range (储存温度范围)	-40	85	°C
14. Aging (老化率)	± 3		ppm/year
15. DLD2		N/A	Ω
16. FLD2		N/A	ppm
17. RLD2		N/A	Ω
18. SPDB	N/A	N/A	db
19. Other(其它)		N/A	

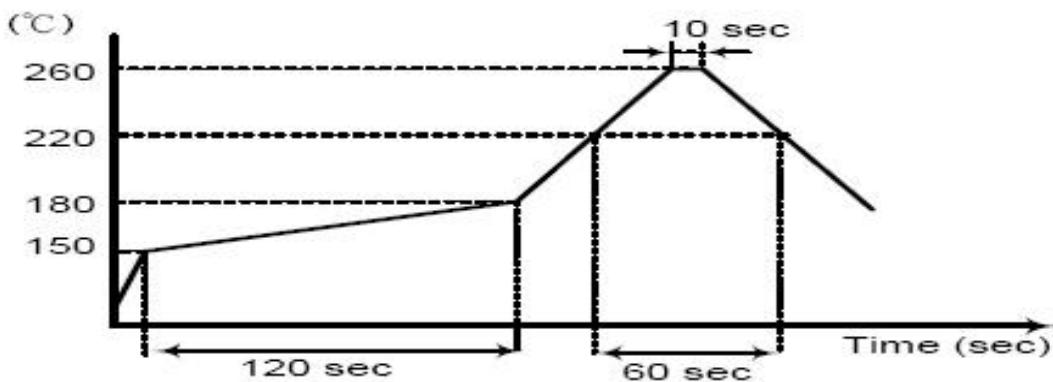


● SUGGESTED REFLOW PROFILE (回流焊曲线图)

Total time:200sec.Max. (总时间: 200秒 最大)

Solder melting point:220°C (熔点220 °C )

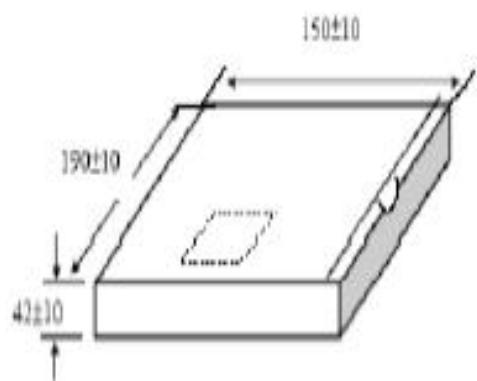
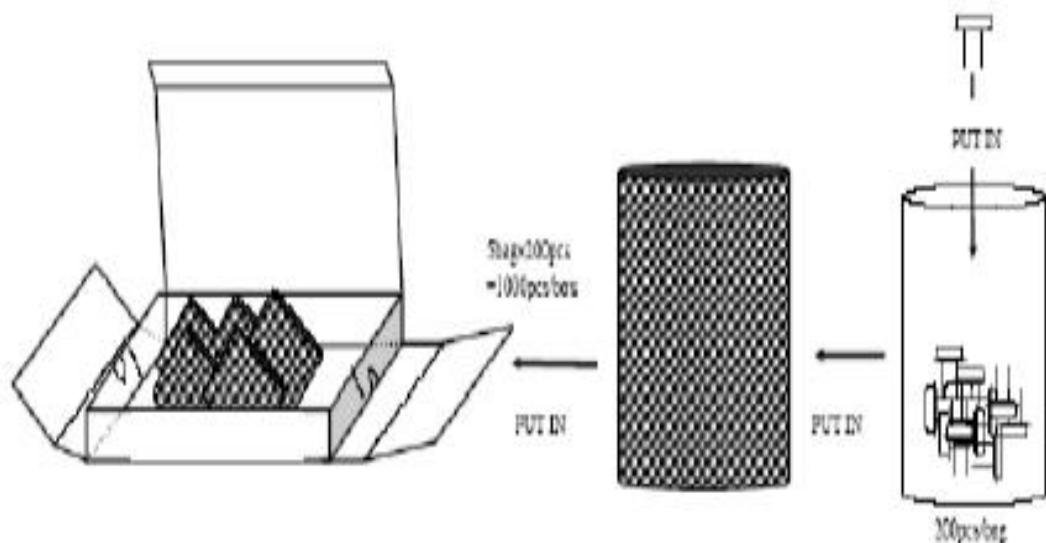
Profiles Feature (特性)	Pb-Free Assembly
Average Ramp-up Rate(Ts max to Tp) 平均升温速度	3°C/second Max
Preheat 预热	
■ Temperature Min (Ts min) 最低温度	125°C
■ Temperature Max (Ts max) 最高温度	200°C
■ Time (ts min to ts max ) 从最低到最高时间	(60~180) seconds
Time maintained above 维持上述时间	
■ Temperature(T1) 温度	217°C
■ Time(tp) 时间	(60~150) seconds
Peak/Classification Temperature(Tp) 最高点温度	260 °C
Time within 5°C of actual Peak Temperature(tp) 高温维持时间	(20~40) seconds
Ramp-down rate 降温速度	6°C/second max
Time 25°C to Peak Temperature 从25°C到最高温度的时间	8 minutes max
Suggest reflow times 建议 reflow次数	3 Times max



★ 备注:

- 以上可靠性项目为我司常规测试项目，若客户对产品有跌落，冲击，碰撞以及涉及到超声波焊接工艺的需求，请将贵司的需求反馈给我司，我司会对该产品的可靠性项目进行更新。
- 客户端在对晶体加热后，为了保证频率的准确性，建议将晶体充分冷却后再进行相关测试。
- 产品符合环保标准要求，如需测试报告请联系提供。

● IPACKING(包裝) 200pcs/REEL



<b>雅晶鑫電子</b>	Shenzhen Yajingxin Electron Co.,Ltd	
<b>● RELIABILITY SPECIFICATIONS (信赖度试验)</b>		
No	Test Item (测试项目)	Test Conditions (测试条件)
1	<b>High Temperature High Humidity Storage</b> (高温、高湿、储存)	<b>Temperature: 85°C±3°C</b> 温度: 85°C±3°C <b>Relative Humidity:85%RH</b> 相对湿度: 85%RH <b>Time: 96 Hours</b> 时间: 96小时
2	<b>High Temperature Storage</b> (高温 储存)	<b>Temperature: 125°C±3°C</b> 温度: 125°C ± 3°C <b>Time: 96 Hours</b> 时间: 96 小时
3	<b>Low Temperature Storage</b> (低温储存)	<b>Temperature: -40°C ± 3°C</b> 温度: -40°C ± 3°C <b>Time: 96Hours</b> 时间: 96小时
4	<b>Thermal Shock</b> (温度冲击)	<b>Temperature1:-55°C ± 5°C</b> 温度1:-55°C ± 5°C <b>Temperature2:85°C ± 5 °C</b> 温度2: 85°C ± 5 °C <b>Temperature change between T1 and T2 5 min</b> T1和T2温度在5分钟内改变 <b>10cycles maintain T1 and T2 for 30 minutes each mon</b> 每次循环30分钟共10次
5	<b>RESISTANCE TO SOLDER HEAT</b> (耐焊接热)	<b>Solder Temperature: 260°C ± 5°C</b> 焊槽温度:260°C ± 5°C <b>Time: 10±1 Seconds</b> 时间: 10±1秒
6	<b>Solderability(可焊性)</b>	<b>The solder pot temperature is 245±5°C , dwell time 245±5°C 焊锡槽浸润5±0.5秒</b>
7	<b>Drop Test</b> (落下试验)	<b>3 Times Free Fall from 75cm height table to 3cm thickness hard wood board</b> 从75cm高度3次跌落到3cm厚硬质木板上
8	<b>MECHANICAL SHOCK</b> (机械冲击)	<b>Half sine wave,1000 G</b> 半正弦波,加速度1000G <b>3 Times for all 3 directions</b> X、Y、Z 三个相互垂直方向各三次
9	<b>Vibration</b> (机械振动)	<b>Frequency Range: 10Hz~55Hz</b> 频率范围: 10Hz~55Hz <b>Amplitude: 0.75mm</b> 振幅: 0.75mm <b>2 Hours in each direction, total 6 Hours</b> X、Y、Z 三个相互垂直方向各振动2小时
10	<b>Leakage Test</b> (气密性)	<b>Take measurements with a helium Leakage detector</b> 氦质检漏 <b>Leakage Rate≤1×10<sup>-3</sup>Pa cm<sup>3</sup>/s</b> 漏率≤1×10 <sup>-3</sup> Pa cm <sup>3</sup> /s