

雅晶鑫電子

Shenzhen Yajingxin Electron Co.,Ltd

<b>Customer</b>	
<b>Production Name</b>	<b>CRYSTAL SEAM 49/SMD</b>
<b>Customer P/N</b>	<b>N/A</b>
<b>P/N</b>	<b>TX49M13. 52127M2LDBE2T</b>
<b>Revision</b>	<b>A</b>
<b>Print Date</b>	<b>2022-12-14</b>

<b>Drawn</b>	<b>Checked</b>	<b>Approved</b>
		

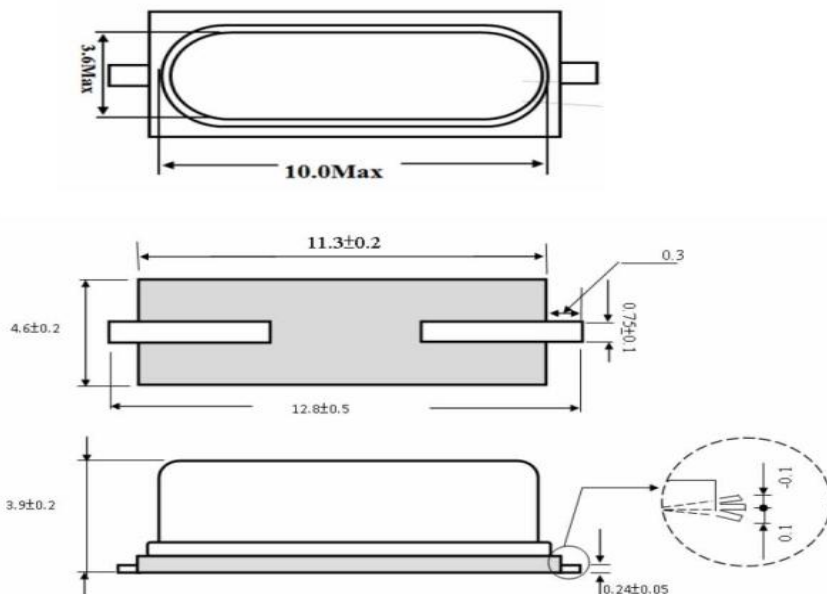


RoHS Compliant

● ELECTRICAL PARAMETERS

谐振器产品技术指标		Min	Max	Units
1.Holder Type(型号规格)		SEAM 49SMD		
2.Mode of Oscillation (振动模式)		Fundamental		
3. Frequency (标称频率)		13.521270		MHz
4.Load Capacitance (CL) (负载电容)		20		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℃ (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)		-20	70	℃
13. Storage Temperature Range (储存温度范围)		-30	85	℃
14. Aging (老化率)		± 5		ppm/year
15. DLD2	N/A		N/A	Ω
16. FLD2			N/A	ppm
17. RLD2			N/A	Ω
18. SPDB			N/A	db

49US SMD尺寸图: (单位: mm)



● **SUGGESTED REFLOW PROFILE** (回流焊曲线图)

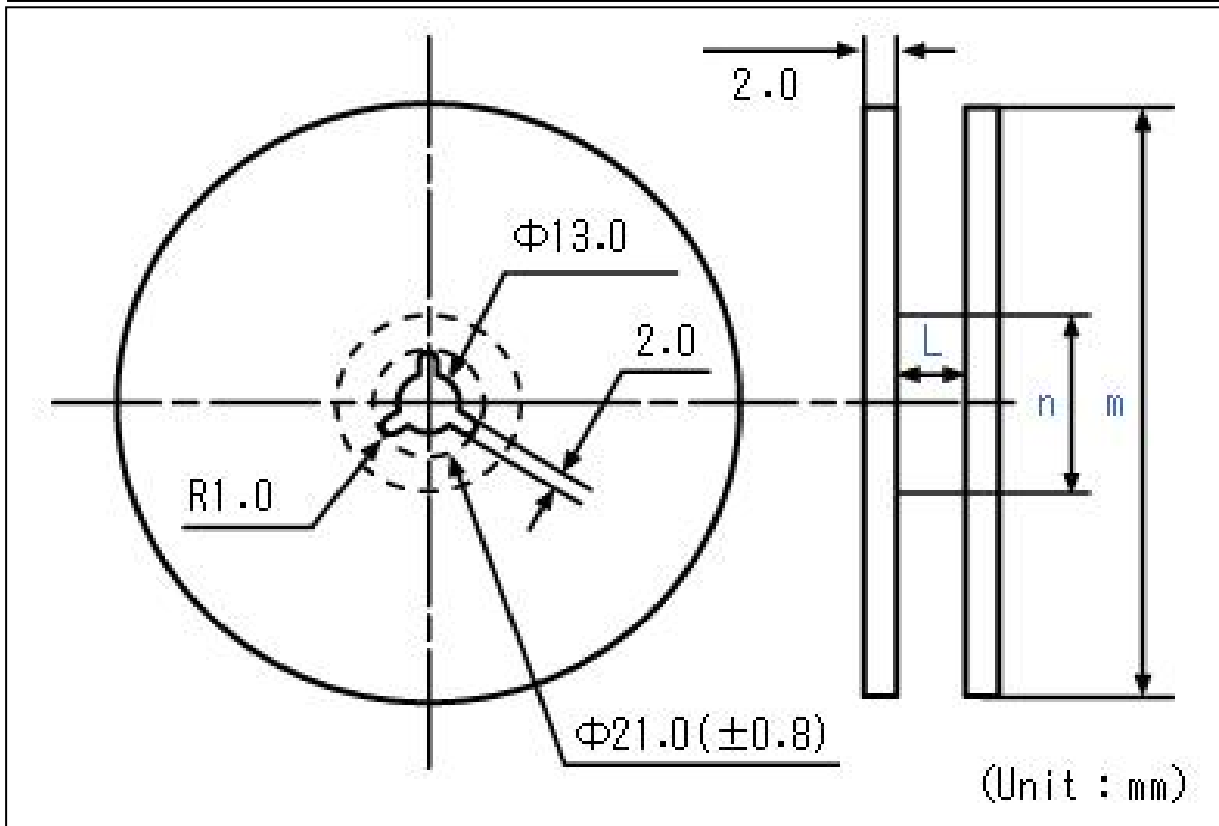
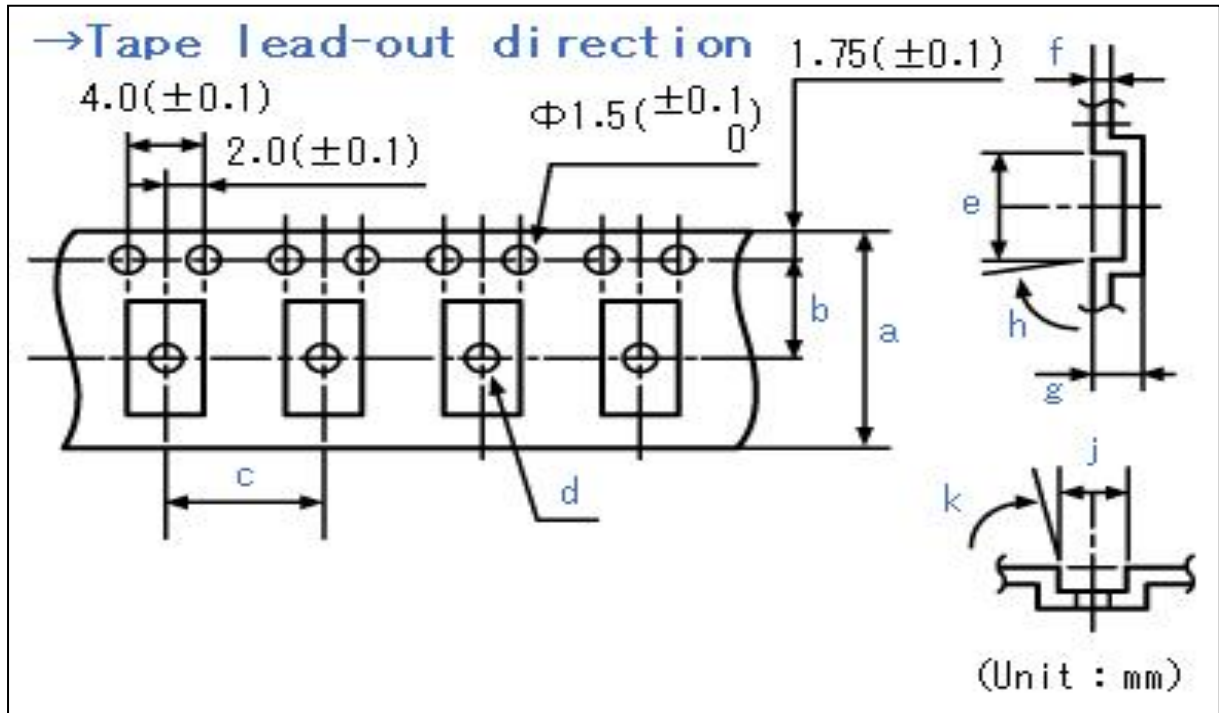
**Total time:200sec.Max.** (总时间: 200秒 最大)

**Solder melting point:220℃** (熔点220℃)

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



- PACKING (包裝) 1Kpcs/REEL



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● RELIABILITY SPECIFICATIONS (信赖度试验)

No	Test Item (测试项目)	Test Conditions (测试条件)	Reference (参考)
1	High Temperature High Humidity Storage (高温、高湿、储存)	Temperature: 85°C±3°C 温度: 85°C±3°C Relative Humidity:85%RH 相对湿度: 85%RH Time: 96 Hours 时间: 96小时	JIS C5023
2	High Temperature Storage (高温储存)	Temperature: 125°C±3°C 温度:125°C±3°C Time: 96 Hours 时间:96 小时	MIL-STD-883E Method 1005.8
3	Low Temperature Storage (低温储存)	Temperature: -40°C±3°C 温度: -40°C±3°C Time: 96Hours 时间: 96小时	MIL-STD-883E Method 1013
4	Thermal Shock (温度冲击)	Temperature1:-55°C±5°C 温度1:-55°C±5°C Temperature2:85°C±5 °C 温度2: 85°C±5 °C Temperature change between T1 and T2 5 min T1和T2温度在5分钟内改变 10cycles maintain T1 and T2 for 30 minutes each mone 每次循环30分钟共10次	MIL-STD-202F Method 107 Condition A
5	RESISTANCE TO SOLDER HEAT (耐焊接热)	Solder Temperature: 260°C±5°C 焊槽温度:260°C±5°C Time: 10±1 Seconds 时间: 10±1秒	MIL-STD-202F Method 210E
6	Solderability(可焊性)	The solder pot temperature is 245±5°C , dwell tim 245±5°C焊锡槽浸润5±0.5秒	J-STD-002B
7	Drop Test (落下试验)	3 Times Free Fall from 75cm height table to 3cm thickness hard wood board 从75cm高度3次跌落到3cm厚硬质木板上	JIS C6701
8	MECHANICAL SHOCK (机械冲击)	Half sine wave,1000 G 半正弦波,加速度1000G 3 Times for all 3 directions X、Y、Z 三个相互垂直方向各三次	MIL-STD-202F Method 213B
9	Vibration (机械振动)	Frequency Range: 10Hz~55Hz 频率范围: 10Hz~55Hz Amplitude: 0.75mm 振幅: 0.75mm 2 Hours in each direction, total 6 Hours X、Y、Z 三个相互垂直方向各振动2小时	MIL-STD-883E Method 2007.3
10	Leakage Test (气密性)	Take measurements with a helium Leakage detector 氦质检漏 Leakage Rate≤1×10 <sup>-3</sup> Pa cm <sup>3</sup> /s 漏率≤1×10 <sup>-3</sup> Pa cm <sup>3</sup> /s	MIL-STD-883E