

深圳市雅晶鑫电子有限公司

Shenzhen Yajingxin Electron Co.,Ltd

产品规格书

SPECIFICATION FOR PRODUCT

品 名
PARTNAME SMD XO 2520

规 格
SPECIFICATION 12.000MHz

客 户
CUSTOMER

客户 料号
CUSTOMER P/N

雅晶鑫 料号
Y J X P/N TD12MUBCE20

日 期
DATE 2025 年 8 月 18 日

编 号
NUMBER T2508180008

拟制: 

复核: 

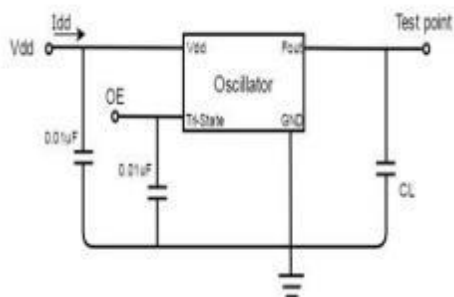
批准: 

深圳市雅晶鑫电子有限公司

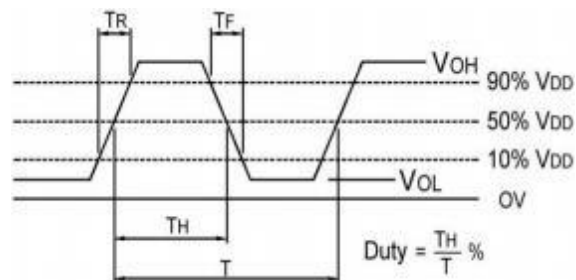
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DESCRIPTION			CONTENTS
1	Holder Type	封装盒型	SMD XO 2520
2	Nominal Frequency	标称频率	12.000MHz
3	Frequency Tolerance @25℃	频率公差	±10ppm
4	Operable Temperature Range (-40℃~ +85℃)	温频特性	±30ppm
5	Output Load	输出负载	15 pF
6	Supply Voltage	工作电压	1.62~3.63Vdc
7	Output Waveform	输出波形	CMOS
8	Current Comsption	电流消耗	Operating 15mA
			Standby 10uA
9	Duty Cycle	占空比	50±10%
10	Output Rise/Fall Time	输出上升/下降时间	8ns
11	Output Level	输出电平	Output High(Logic “1”) 0.9Vdd Max
			Output Low(Logic “0”) 0.1Vdd Min
12	Tri-State	三态输出	Output Active Vdd×0.7 Max
			Output in High-Impedance state Vdd
13	Storage Temperature	储存温度	-55℃~ +125℃
14	Aging Rate	年老化率	±3ppm/Year
15	Start-up Time	启动时间	5ms

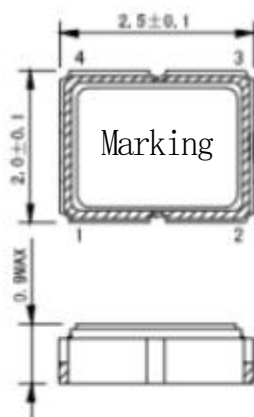
Test Circuit (CMOS Load)



Output Waveform (CMOS Load)

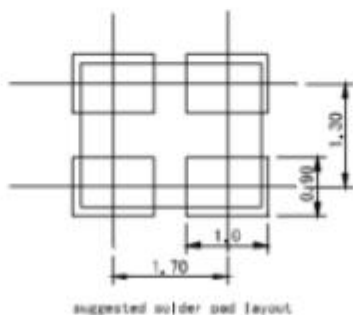
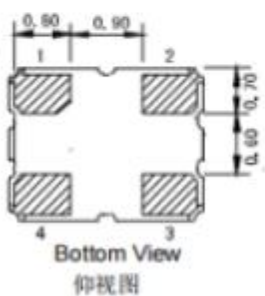


Outline Dimensions(unit: mm)



Units (单位): mm(毫米)

Pad Functions:
1. ENABLE CONTROL
2. GND
3. OUT PUT
4. VDD



Pin Connection

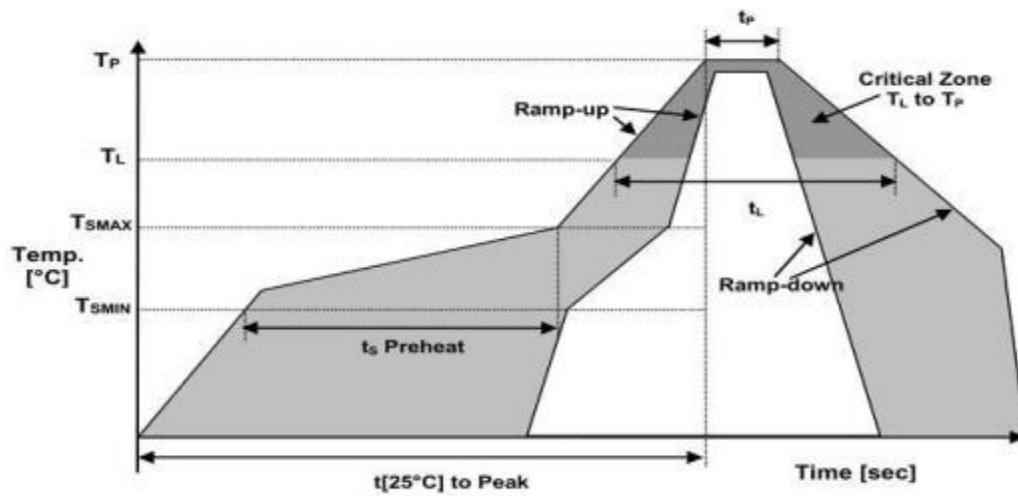
Name	Connection
1	E/D
2	GND
3	Fout
4	Vdd

Function

Pin1 Input	Pin3 Output
High level	Oscillation
Low level	Oscillation stop



Reflow soldering

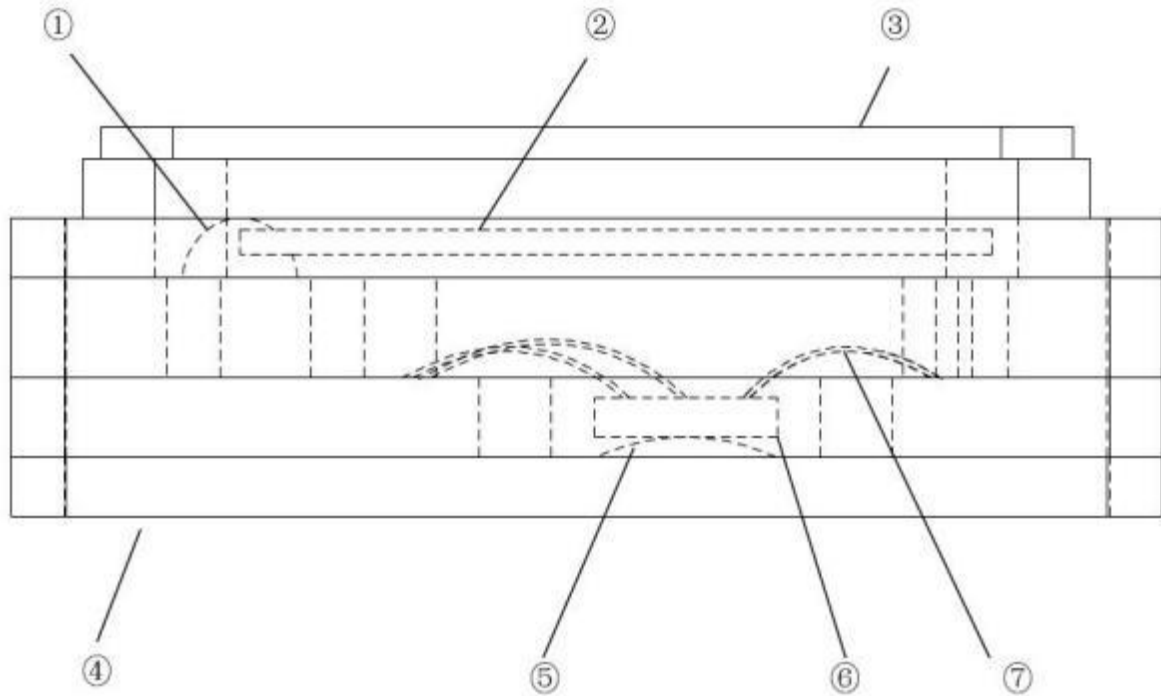


Reflow Profile

Temperature MIN Preheat	T_{SMIN}	150°C
Temperature MAX Preheat	T_{SMAX}	200°C
Time ($T_{SMIN} - T_{SMAX}$)	t_s	60- 180sec
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up Rate	R_{UP}	3°C/sec max
Ramp-Down Rate	R_{DOWN}	6°C/sec max
Time within 5°C of Peak Temperature	t_p	10sec
Time $t(25^{\circ}\text{C})$ to Peak Temperature	$t(25^{\circ}\text{C}) \text{ to Peak}$	480sec
Time	t_L	60- 150sec



Structure Illustration



NO.	Components	Materials
1	Conductive Adhesive	Ag+Silicone resin
2	Crystal Blank	SiO ₂
3	Lid	Fe-Ni-Co Alloy
4	Base	Ceramic+Noble Metal
5	Conductive Adhesive of Solid IC	Ag+Silicone resin
6	IC	Si
7	Gold wire	Au