



ZHEJIANG A-CRYSTAL

ELECTRONIC TECHNOLOGY CO., LTD.



Issue	December 21, 2024
Rev.	1.0
Page	5

CRYSTAL UNIT SPECIFICATIONS

客户批准 Customer Approval

(请批准后回签一份 Please Return A Copy With Approval)

Customer	
Customer P/N	
Product	CRYSTAL OSCILLATOR
Spec	POSCD8/13.700K~160.000M
A-Crystal P/N	AO8 Series

Drawn	Checked	Approved
<i>Caogaobang</i>	<i>Fengying</i>	<i>Tanqlong</i>



ZHEJIANG A-CRYSTAL
ELECTRONIC TECHNOLOGY CO., LTD.



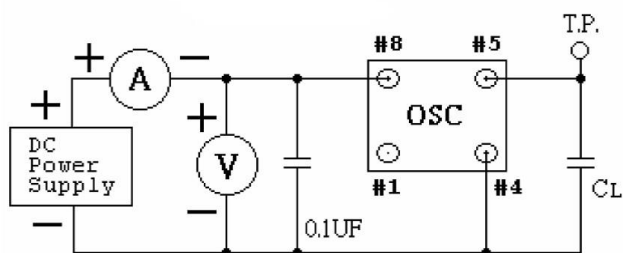
1. ELECTRICAL SPECIFICATIONS

1.1 Hold Type: POSCD8

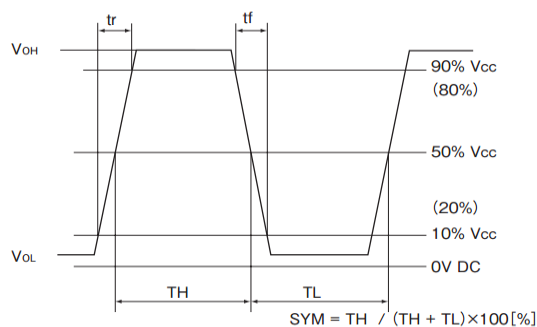
No.	Item	Symb.	Electrical Specification				Remark
			Min.	Type	Max.	Units	
1	Nominal Frequency	F ₀	13.70K	-	160.000	MHz	
2	Frequency Stability		-20 -50	-	+20 +50	ppm	All condition*
3	Operating Temperature Range	TOPR	0 -40	-	+60 +85	°C	
4	Storage Temperature	TSTG	-55	-	+125	°C	
5	Power supply Voltage	V _{DD}	1.8	-	5.5	V	
6	Aging Per Year	Fa	-3	-	+3	ppm	First Year
7	Supply current	Ic	15	-	50	mA	
8	Output symmetry	Sym	40	50	60	%	
9	Rise time	Tr	-	-	10	ns	10%~90%V _{DD}
10	Fall time	Tf	-	-	10	ns	90%~10%V _{DD}
11	Output voltage	V _{OH}	90%	-	-	V _{DD}	
		V _{OL}	-	-	10%	V _{DD}	
12	Output load		15	-	50	PF	
13	Start-up Time		-	-	10	mS	
14	Pin 1, tri-state function	pin 1=H or open.....output active at pin 3 pin 1=L.....high impedance at pin 3					
15	Package type	13.2*13.2*5.6					

All condition*: Include 25deg C tolerance, operating temperature range , input voltage change, aging, load change, shock and vibration.

1.2 Test Circuit



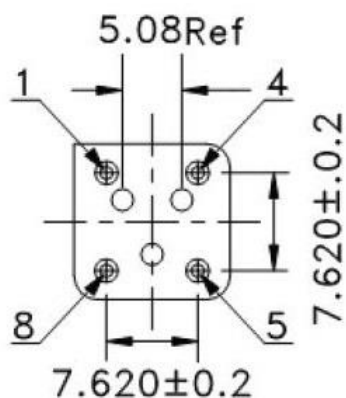
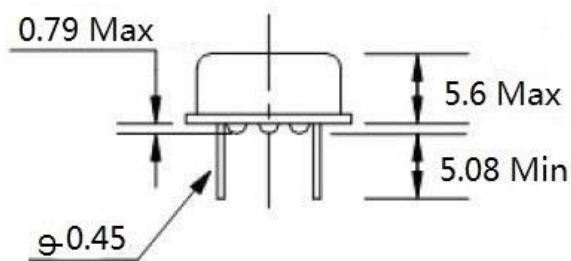
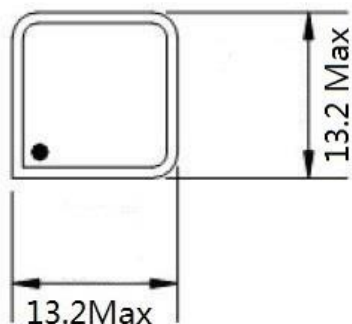
1.3 Output Waveform





2. PRODUCT SIZE

2.1 Dimension (Unit: mm)



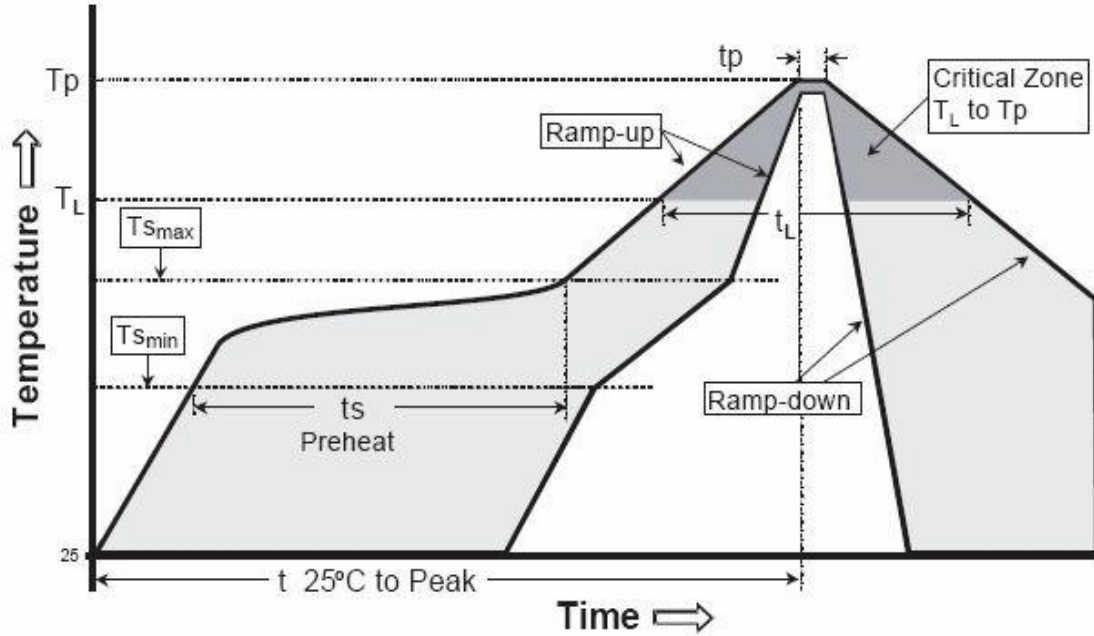
Pin	Connection
1	Enable/NC
2	GND
3	Output
4	V _{DD}

2.2 Marking





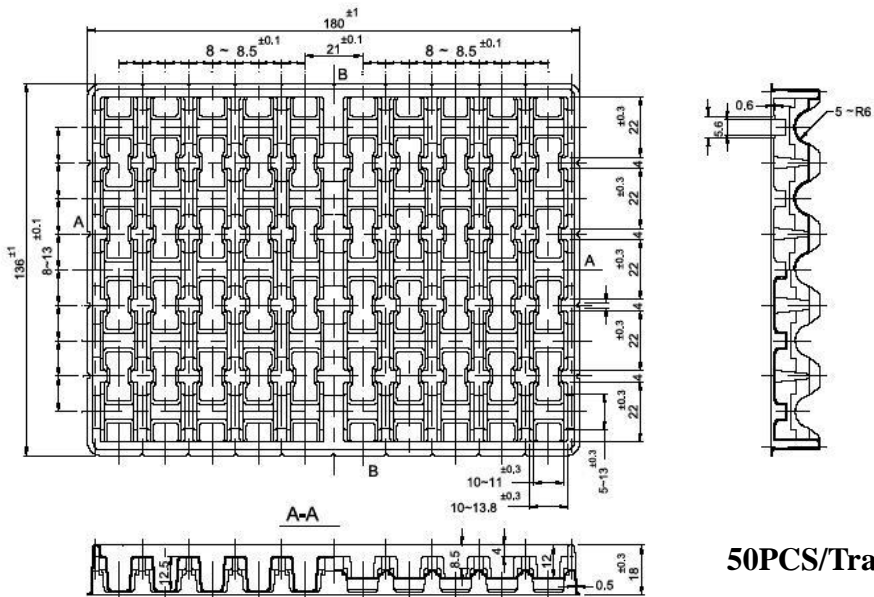
3. REFLOW PROFILES



$T_s = 200^\circ\text{C} / 60 \sim 180\text{sec}$, $T_L = 217^\circ\text{C} / 60 \sim 150\text{sec}$, $T_p = 260^\circ\text{C} / 20 \sim 40\text{sec}$

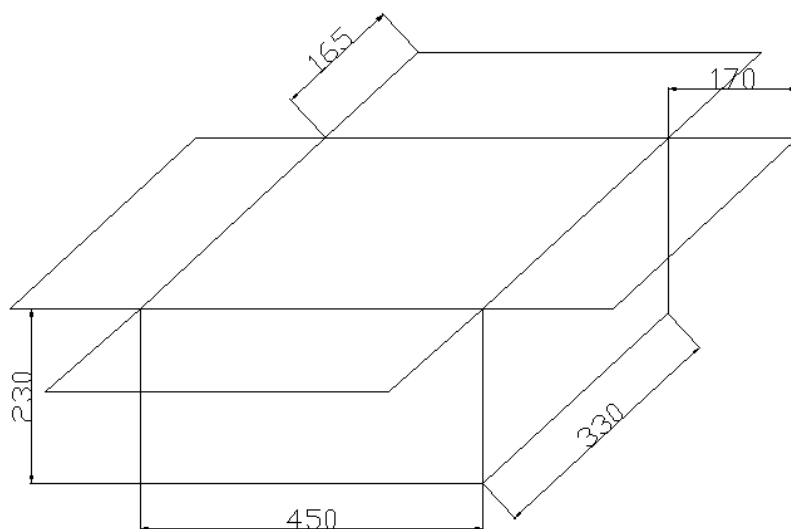
4. PACKING

4.1 Section of package (Unit: mm)





4.2 Dimensions and Mark (Unit: mm)



500/PCS is package

5. Products Code

5.1 SMD CRYSTAL OSCILLATORS

公司代码 浙江一晶	产品型号 (2位)	工作频率 (全频点位数)	负载电容 (1位字母)	调整频差 (1位字母)	温度频差 (1位字母)	工作温度 (1位字母)	其它
A-crystal Logo	Package	Nominal Frequency	Load Capacitance	Frequency Tolerating	Freq Temp Characteristics	Operating Temperature Range	Others
A	O8 (POSCD8)	4M=04000	Y=5.0V	01=5PPM	A=10PPM	1=0~50	Special
		12.000M=12000	A=3.3V	02=10PPM	B=15PPM	2=-10~60	
		32.768K=32768	M=3.0V	03=20PPM	C=20PPM	3=-10~70	
			C=2.5V	04=30PPM	D=25PPM	4=-20~70	
			D=1.8V	05=40PPM	E=30PPM	5=-30~85	
			B=2.8V	06=50PPM	F=50PPM	6=-40~85	
			Y=5.0V	07=100PPM	G=100PPM	7=-40~105	
						8=-40~125	