ZHEJIANG A-CRYSTAL
ELECTRONIC TECHNOLOGY CO., LTD.

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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 Appoval）

Customer	
Customer P/N	
Product	CRYSTAL OSCILLATOR
Spec	POSC2016/1.500K~52.000M
A-Crystal P/N	AO4 Series

Drawn	Checked	Approved
Caogaobang	Fengying	Tanglong

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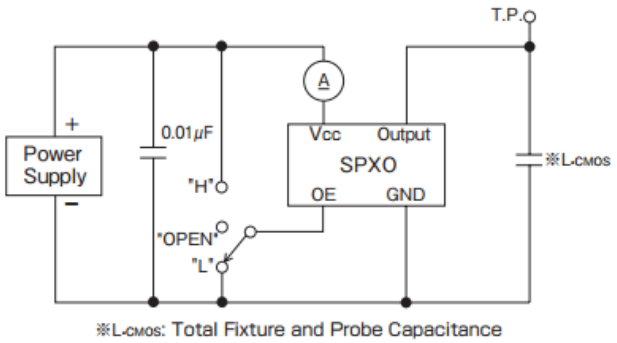
1. ELECTRICAL SPECIFICATIONS

1.1 Hold Type: POSC2016

No.	Item	Symb.	Electrical Specification				Remark
			Min.	Type	Max.	Units	
1	Nominal Frequency	F_0	1.50K	-	52.000	MHz	
2	Frequency Stability		-20 -50	-	+20 +50	ppm	All condition*
3	Operating Temperature Range	TOPR	0 -40	-	+60 +85	℃	
4	Storage Temperature	TSTG	-55	-	+125	℃	
5	Power supply Voltage	V_{DD}	1.8	3.3	3.6	V	
6	Aging Per Year	Fa	-3	-	+3	ppm	First Year
7	Supply current	Ic	-	-	3.5	mA	
8	Output symmetry	Sym	45	50	55	%	
9	Rise time	Tr	-	-	5	ns	10%~90%V_{DD}
10	Fall time	Tf	-	-	5	ns	90%~10%V_{DD}
11	Output voltage	V_{OH}	90%	-	-	V_{DD}	
		V_{OL}	-	-	10%	V_{DD}	
12	Output load		-	-	15	PF	
13	Start-up Time		-	-	2	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	2.0*1.6*0.75					

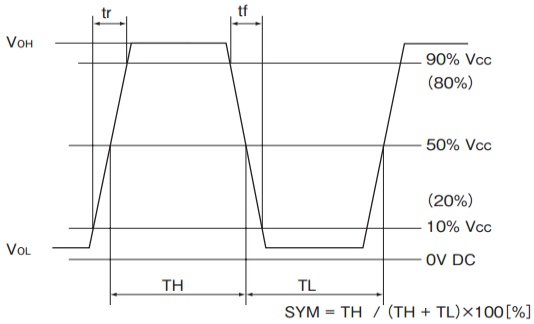
All condition*： Include 25deg C tolerance, operating temperature range , input voltage change, aging, load change, shock and vibration.

1.2 Test Circuit



※L-CMOS: Total Fixture and Probe Capacitance

1.3 Output Waveform



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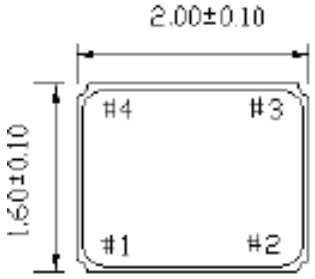
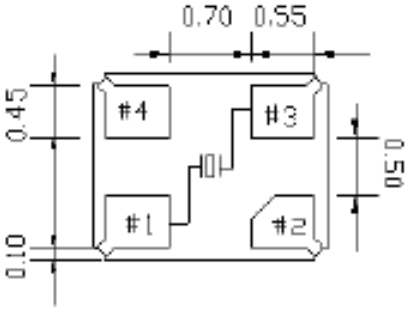
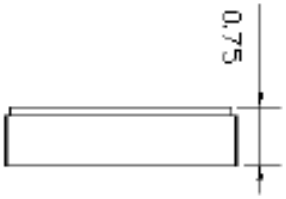
2. PRODUCT SIZE

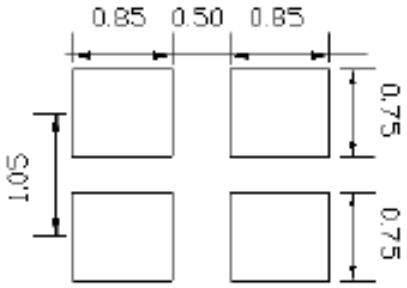
2.1 Dimension (Unit: mm)







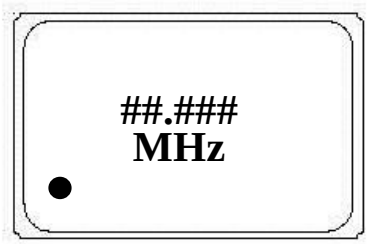
Recommended Solder Pattern



Pin	Connection
1	Tri-state
2	GND
3	Output
4	V_{DD}

Note：0.01uF bypass capacitor should be placed between VDD (pin 4) and GND (pin 20 to minimize power supply line noise.

2.2 Marking



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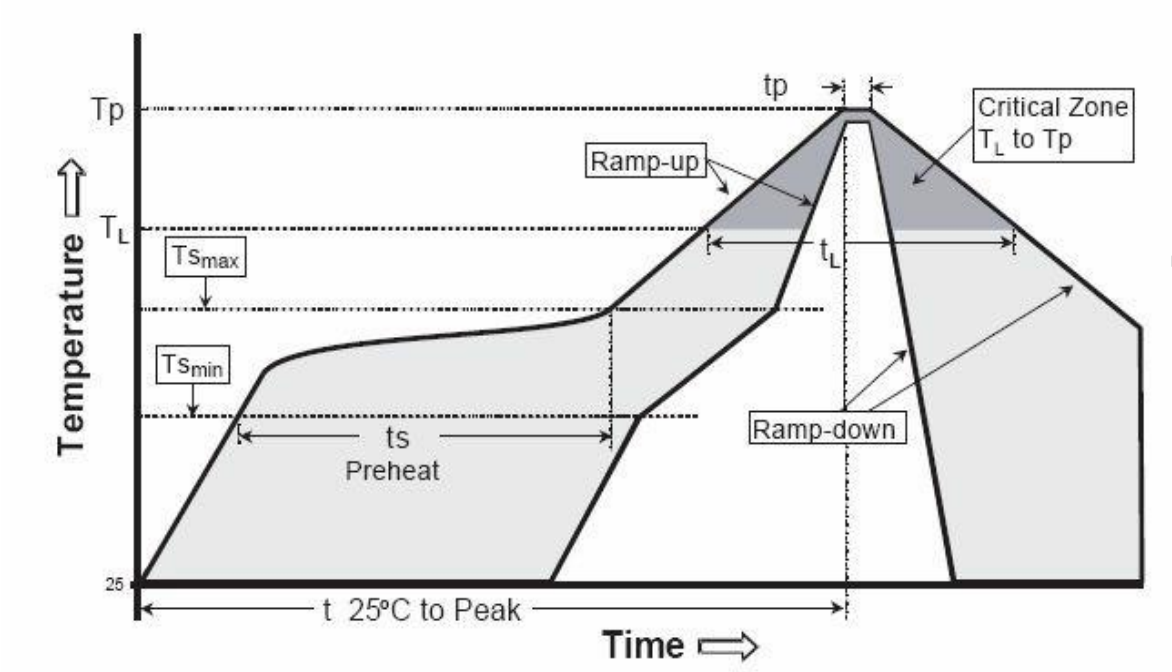
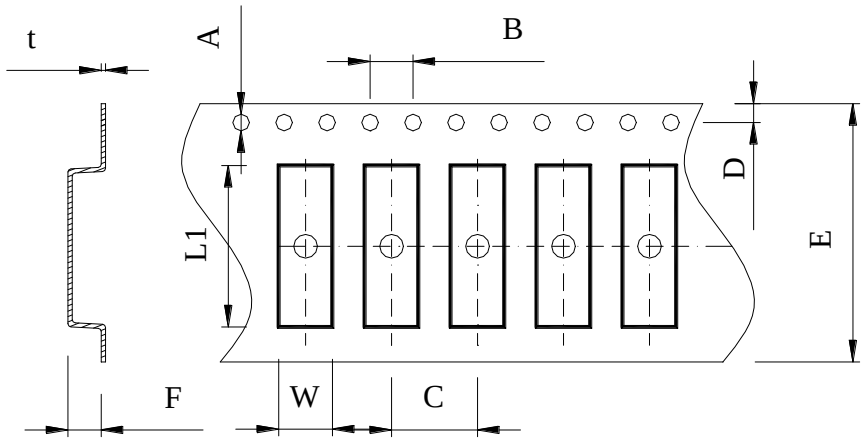
3. REFLOW PROFILES



Ts =200℃/60~180sec, T_L =217℃/60~150sec, Tp =260℃/20~40sec

4.PACKING

4.1 Packing Method Sketch Map (Unit: mm)



A	B	C	D	E	F	L1	W	t
1.50±0.1	4.0±0.1	4.0±0.1	1.75±0.1	8.0±0.2	1.3±0.1	2.2±0.1	1.8±0.1	0.25±0.05

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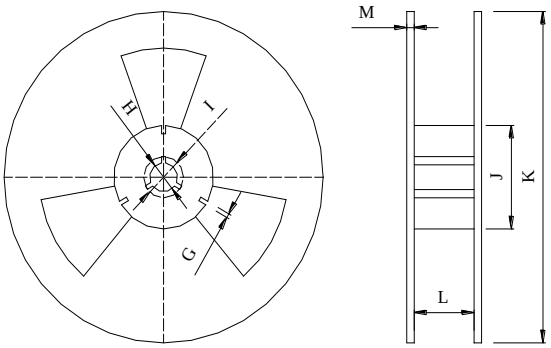
4.2 Reel Dimensions (Unit: mm)



G	H	I	J	K	L	M
2.0 ±0.5	13.0 ±0.5	21.0±0.5	Φ80 +1/−0	φ180 +0/−3	9.0 ±0.3	1.2 ±0.3

*3000pcs/Reel

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 Temperture Range	Others
A	O4 (POSC2016)	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	
				07=100PPM	G=100PPM	7=-40~105	
						8=-40~125	