



ZHEJIANG A-CRYSTAL
ELECTRONIC TECHNOLOGY CO., LTD.



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Rev.	1.0
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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 RESONATORS
Spec	PMX405/25.600~307.20KHz
A-Crystal P/N	AM4 Series

Drawn	Checked	Approved
<i>caogaobang</i>	<i>tanglong</i>	<i>huangweilong</i>



1. ELECTRICAL SPECIFICATIONS

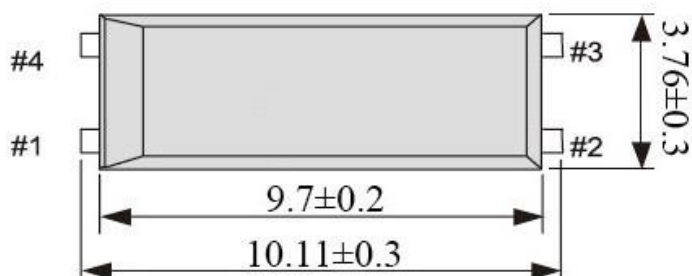
1.1 Hold Type: PMX-405

Parameter	Symb	Electrical Specification				Condition
		Min	Type	Max	Units	
Frequency Range	F ₀	25.60	32.768	307.20	KHz	
Frequency Tolerance	$\Delta f/f_0$	±5	±20	±100	PPM	REF TO 25°C
Temperature Coefficient	K	-0.034 ± 0.006			ppm/(°C) ²	
Turnover Temperature	T _{TO}	20	25	30	°C	
Operating Temperature Range	T _{OP}	-20 -40		+70 +85	°C	
Storage Temperature Range	T _{ST}	-55		125	°C	
Quality Factor	Q	60,000			Typ	
Series Resistance	R ₁	35		50	K Ω	REF TO 25°C
Shunt Capacitance	C ₀	0.9	1.9	2.0	Typ	0.9~2.0PF
Motional Capacitance	C ₁		2.7		Ff TYP	
Load Capacitance	C _L	6	12.5	30	PF	
Insulator Resistance	IR	500			M Ω	DC100V ± 15V
Drive Level	DL			1.0	μ W	
Capacitance ratio	R		450		TYP	
Aging Rate	Δ/f	±3		±5	PPM	at 25°C ± 3°C
Moist are Sensitivity Level	MSL		1			J-STD-033
Package type	10.4*4.06*3.6					

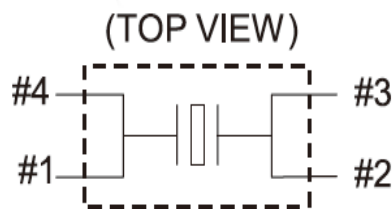
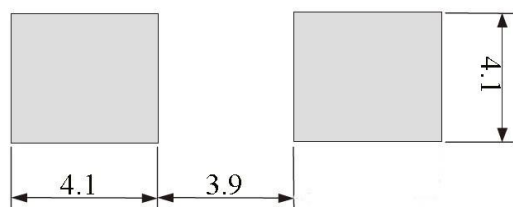
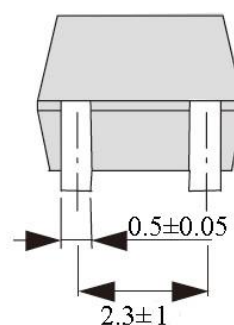
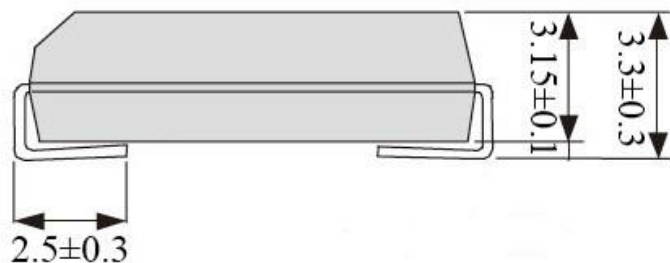
注: ROHS 豁免 ROHS exemption, 高温高铅 high lead and high temperature;



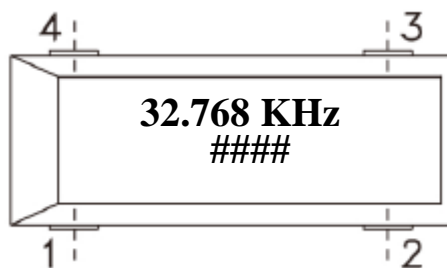
1.2 Dimension (Unit: mm)



Note: Metal may be exposed on the top or bottom of this product this will not affect any quality reliability or electrical spec

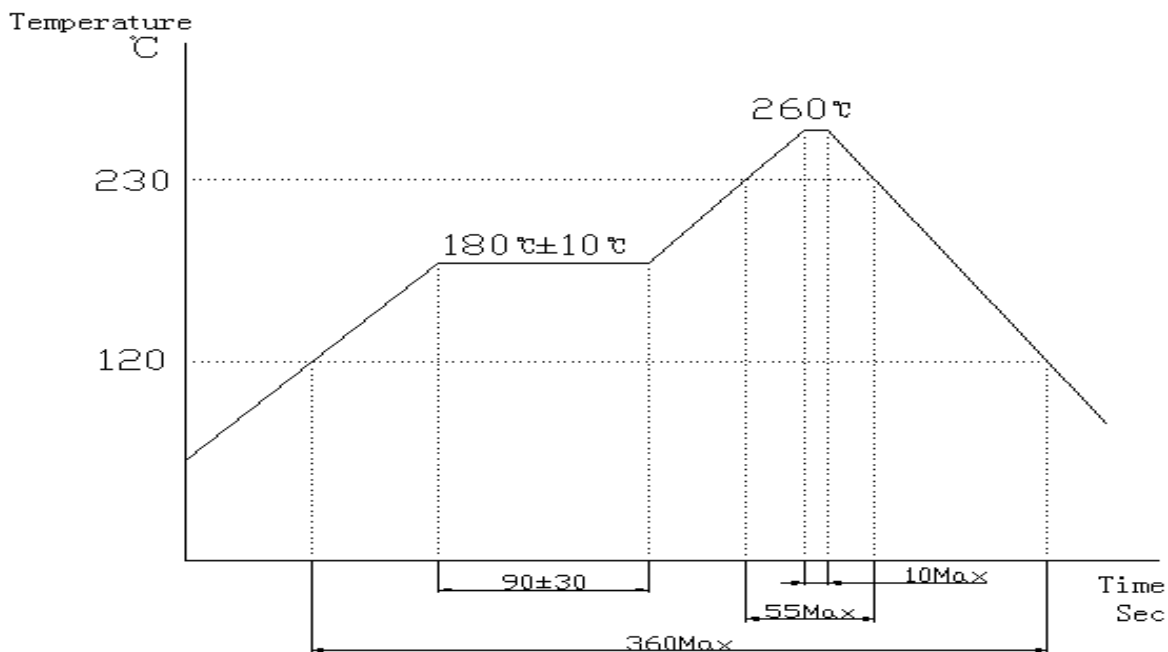


1.3 Marking



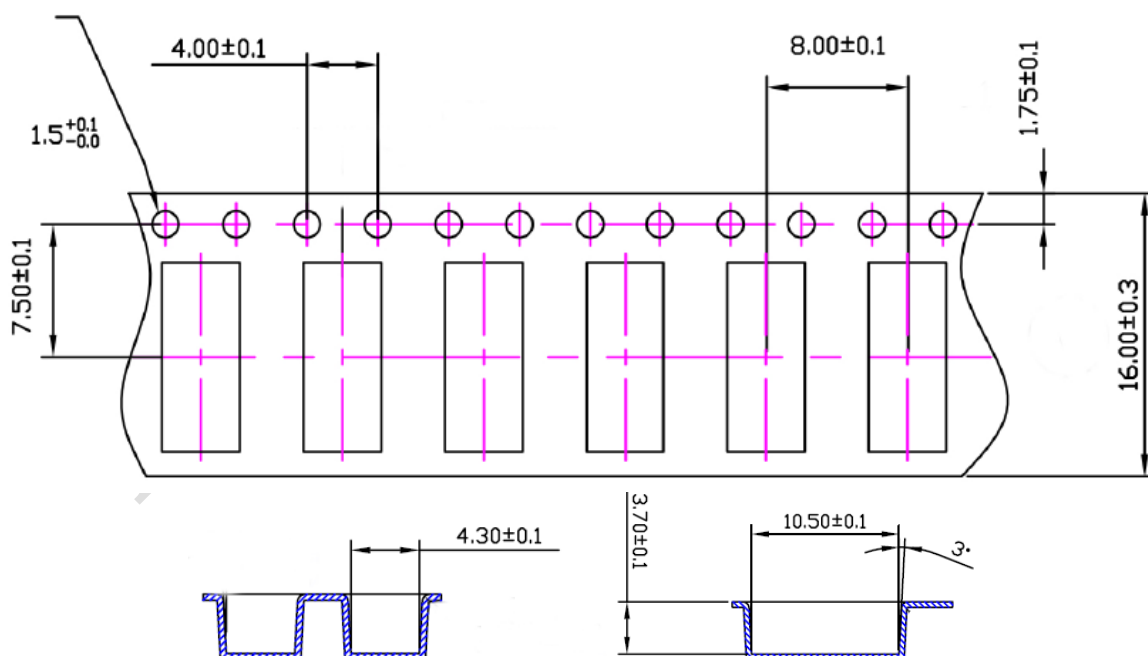


1.4 Reflow solder



2. Packing

2.1 Packing Method Sketch Map (Unit: mm)

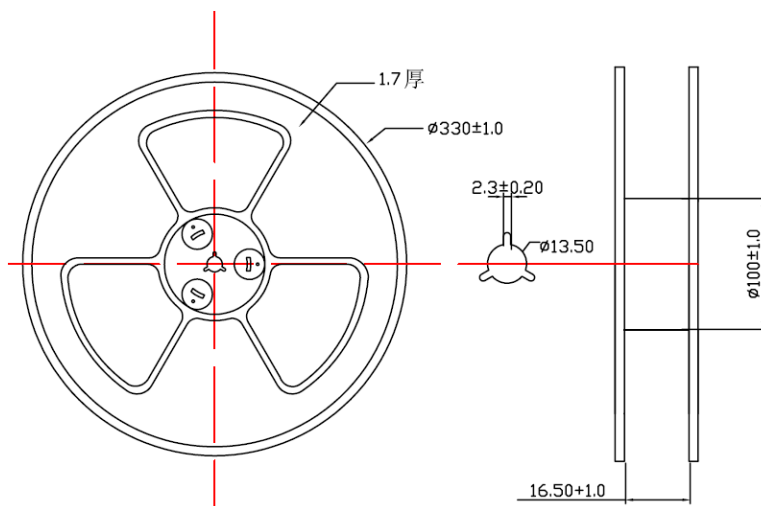




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2.2 Reel Dimensions (Unit: mm)



Pieces per reel: 2000/reel

3. Products Code

3.1 SMD Crystal Resonators/KHz

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	M4 (PMX405)	32.768K	A = 12.5PF	A=10PPM	T = 温度系数	A = 0~50	Special
		40.000K	B = 10PF	B=20PPM		B = -10~60	
			C = 9PF	C=30PPM		C = -10~70	
			D = 8PF	D=50PPM		D = -20~70	
			E = 7PF			E = -30~85	
			F = 6PF			F = -40~85	
			G = 16PF			G = -40~105	
			H = 18PF			H = -40~125	
			J = 20PF				
			K = 22PF				
			L = 30PF				