



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,

Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Approval Sheet For Product Specification

Issued Date: 10/11/2002

Product Name: SMD Clock Oscillator 22.0 MHz

TST Parts No.: TW0105A

Customer Parts No.: _____

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Robert Chang

Approval by: _____ T.F. Yang / Mark Chen

Date: _____ 2002/10/11



台灣嘉碩科技股份有限公司

TAI-SAW TECHNOLOGY CO., LTD.

桃園縣平鎮工業區工業二路3號

No.3, Industrial 2nd Rd., Ping-Chen Industrial District, Taoyuan, Taiwan, R.O.C.

TEL : 886-3-4690038

FAX : 886-3-4697532

SMD Clock Oscillator 22.0 MHz

MODEL NO.: TW0105A

REV. NO.: 2

A. FEATURES:

1. Ultra small package
2. Excellent for high-density packaging.

B. MAXIMUM RATING:

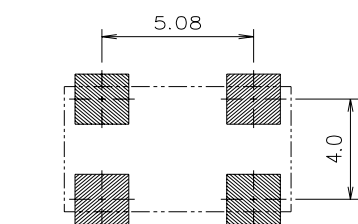
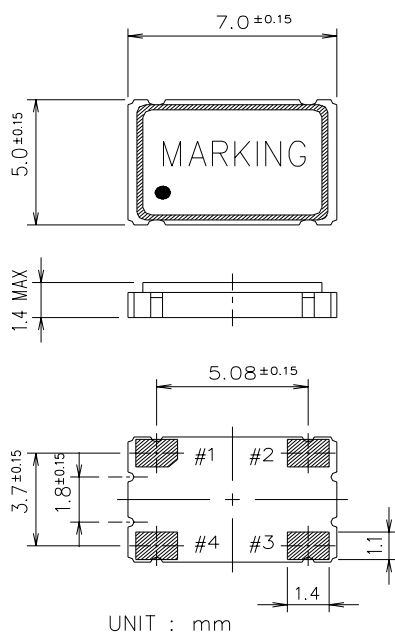
1. DC Voltage: 12 VDC.
2. Storage Temperature: -55 °C to +125 °C.
3. Operating Temperature:-0 °C to +70 °C.

C. ELECTRICAL CHARACTERISTICS:

Characteristics	Units	Minimum	Typical	Maximum
Center Frequency	MHz		22.000	
Frequency Stability (#note 1)	PPM	-25	-	25
Input Voltage (Operating VDD)	VDC	-	3.3+/-10%	-
Input Current	mA	-	-	12
Output				
Load	pF	-	15	-
"0" Level	VDC	-	-	0.33
"1" Level	VDC	2.97	-	-
Symmetry (TW/T*100%) Duty Cycle	%	40%	-	60%
Rise Time (10%→90% VDD)	nSec	-	-	10
Fall Time (90%→10% VDD)	nSec	-	-	10
Enable/Disable Function		PIN 1: High or Open, PIN 3:Enable PIN 1: Low, PIN 3:Disable		
Package size		SMD5.0X7.0X1.4mm		

#Note 1: Frequency stability includes 25C tolerance, operating temperature range, aging and voltage or load change.

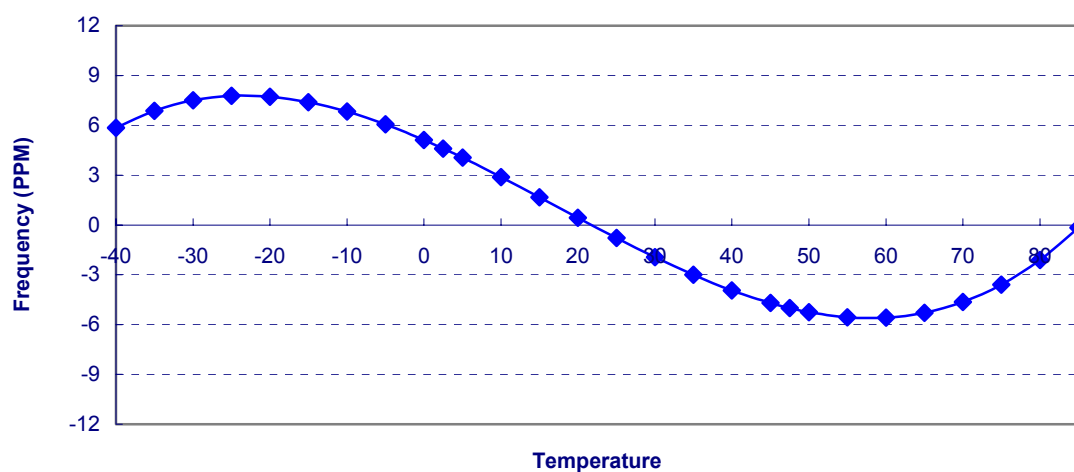
D. OUTLINE DRAWING: (Unit: mm)



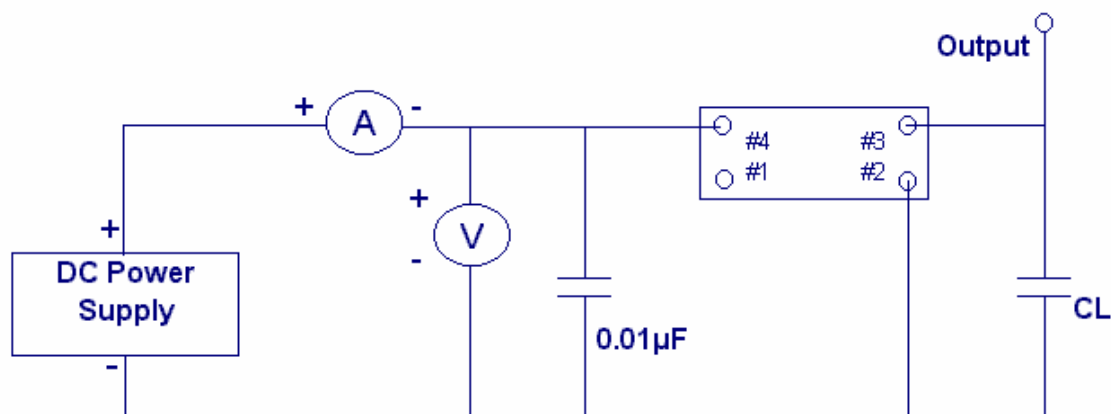
Recommended Soldering Pattern

PIN#	FUNCTION
1	NO CONNECT/3-STATE
2	CIRCUIT AND COVER GROUND
3	OUTPUT
4	VDD

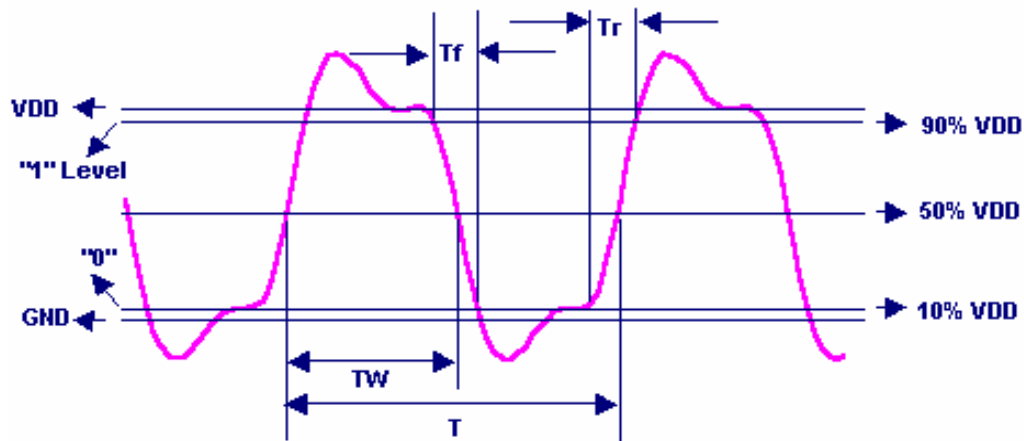
E. FREQUENCY STABILITY OVER TEMPERATURE (TYPICAL):



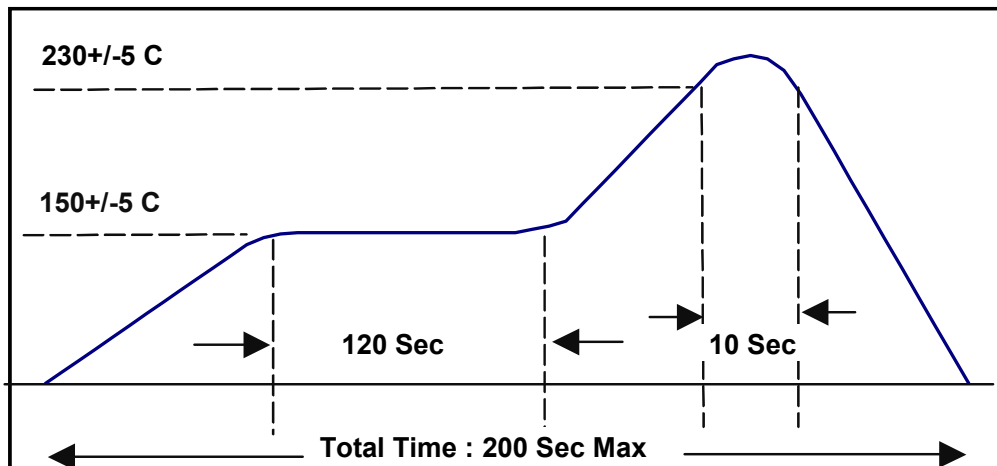
F. TEST CIRCUIT:



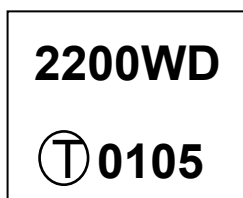
G. OUTPUT WAVEFORM (TYPICAL):



H. SOLDERING REFLOW PROFILE:



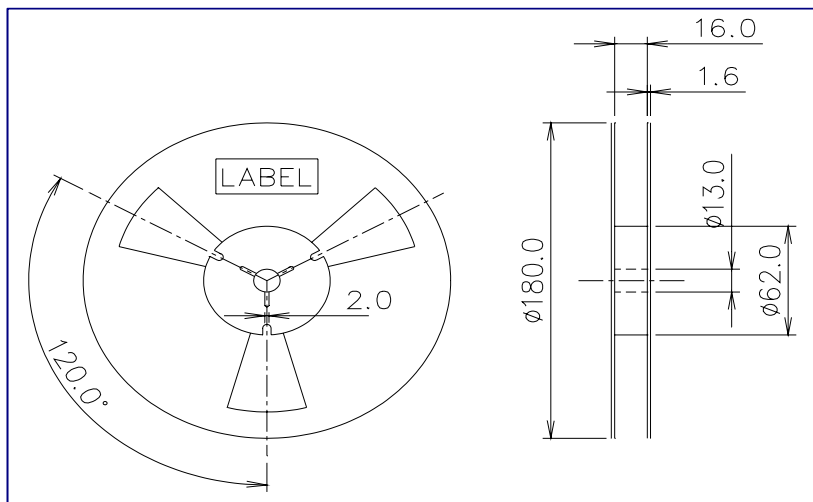
I. MARKING:



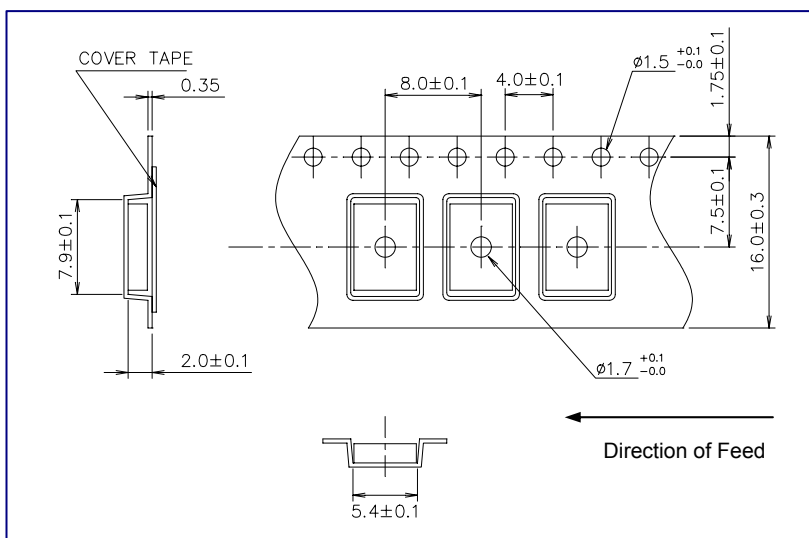
Where D stands for date code

J. PACKING:

1.REEL DIMENSION (Unit: mm)



2.TAPE DIMENSION (Unit: mm)



3.PACKING DIRECTION

The dot or the logo of marking should be close to the hole of tape.