# 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: 12/2/2005 (REV. NO.: 1)

Product Name: SMD 5x3.2 12MHz TCXO

TST Parts No.: TX0173A

Customer Parts No. :_____

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by: CC Hsu

Approval by: TF Yang

Date: 12/2/2005

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## SMD 5.0x3.2 12MHz TCXO

MODEL NO.: TX0173A

REV. NO.: 1

## Features:

RoHS Compliant
Lead free
Lead-free soldering

- Miniature SMD Package
- Good Frequency Stability
- Good Phase Noise Response

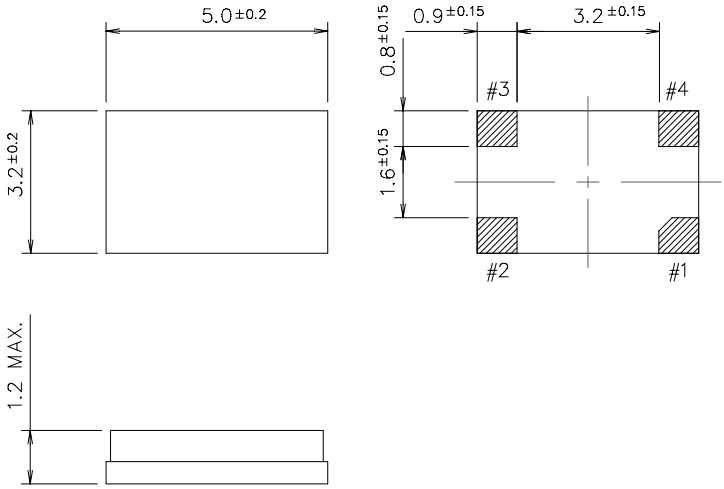
## Description and Applications:

Surface mount 5.0mmx3.2mmm TCXO for use in GPS system

## Electrical Specifications:

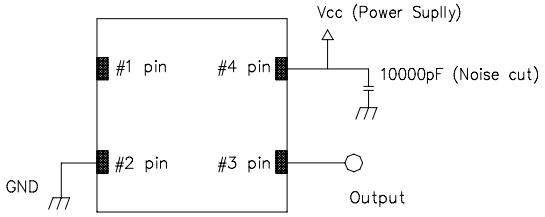
| **TX0173A** | **Specifications** |
|---|---|
| Nominal Frequency, Fo | 12.00 MHz |
| Storage Temperature Range | -40°C to +85°C |
| Operating Temperature Range | -40°C to +85°C |
| Power Supply Voltage, Vcc | 3 V |
| Output Voltage with Load 10pF//10KΩ, Vout | 0.8 Vp-p min |
| Power Supply Current, Icc | 2.0 mA max |
| Frequency Tolerance | +/- 0.5 ppm max @ 25°C +/- 3°C |
| Frequency Stability<br>a. Vs. Temperature (-40~85°C)<br>b. Vs. Supply Voltage varied 3.3V+/-5% | <br>+/- 3.0 ppm<br>+/- 0.2 ppm |
| Aging | +/-1.0 ppm/year @25°C |

# Mechanical Dimensions (mm):



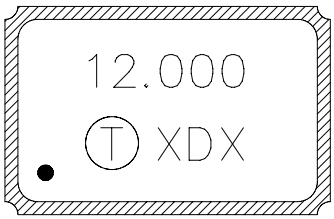

| | Pin Connection |
|---|---|
| #1 pin | NC/GND |
| #2 pin | GND |
| #3 pin | Output |
| #4 pin | +Vcc |

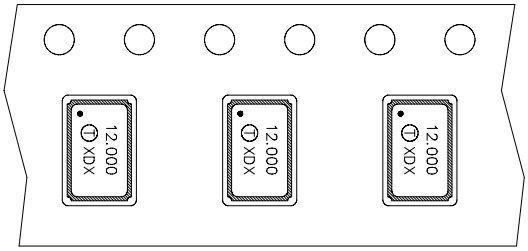
**Recommended Circuit**




# Marking:

Line 1: Customer Frequency (12.00)
Line 2: TST Logo + Crystal Product Code + Date Code



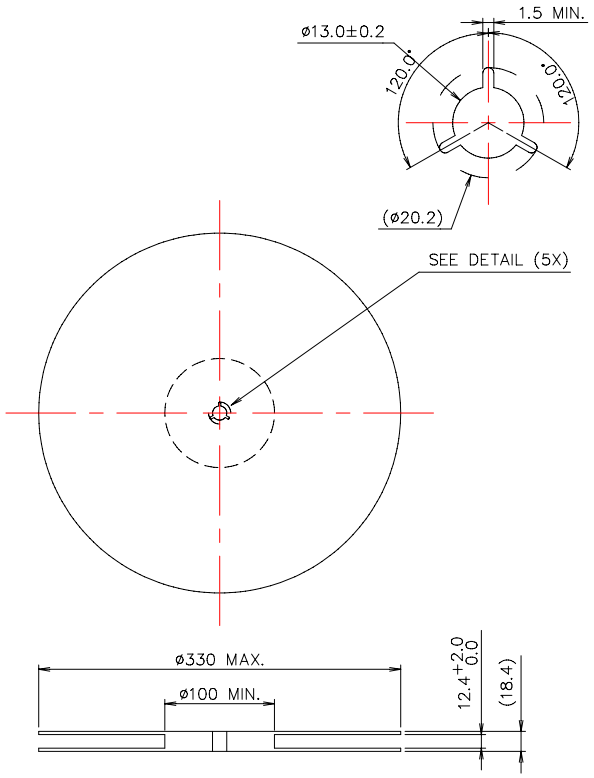

**Product Code Table**

| Year | 2001<br>2005 | 2002<br>2006 | 2003<br>2007 | 2004<br>2008 |
|---|---|---|---|---|
| Product Code | X | x | X | x |

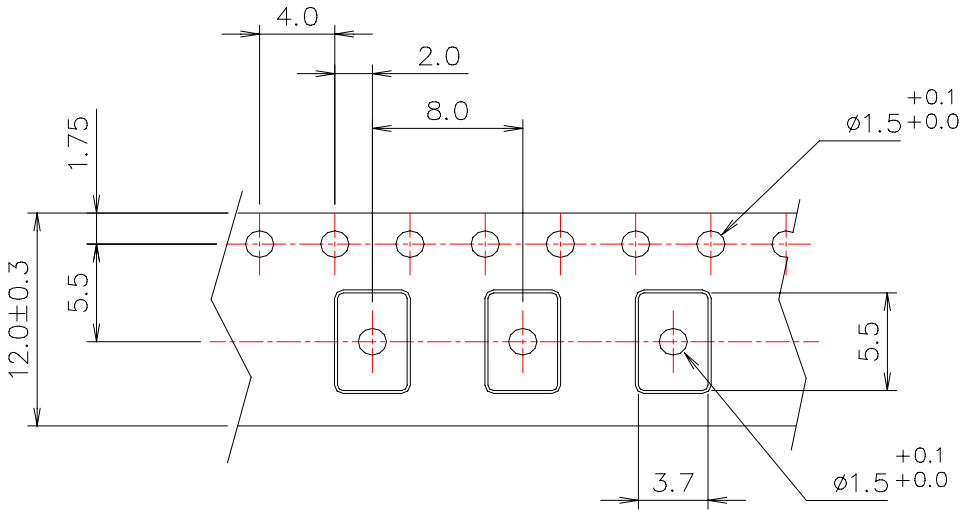
**Date Code Table**

| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| WK27 | WK28 | WK29 | WK30 | WK31 | WK32 | WK33 | WK34 | WK35 | WK36 | WK37 | WK38 | WK39 |
| a | b | c | d | e | f | g | h | i | j | k | l | m |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n | o | p | q | r | s | t | u | v | w | x | y | z |

# Reel Dimensions (mm):




# Tape Dimensions (mm):




[NOTE]:

1. Unless otherwise specified tolerance on dimension +/-0.1 mm.
2. Material: conductive polystyrene with color black
3. 10 pitch cumulative tolerance +/-0.2 mm.

# Reflow Profile:

1. Preheating shall be fixed at 140 ~ 160 ℃ for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150 ℃ shall be 30 seconds min.
3. Heating shall be fixed at 200 ℃ for 50 ~ 60 seconds and at 230±10 ℃ peak.

