Approval Sheet For Product Specification

Issued Date: 8/3/2007 (REV. NO: 1)

Product Name: SMD 3.2x2.5 16.367667MHz TCXO

TST Parts No.: TX0240A

Customer Parts No.:_____

Company:_____

Division:_____

Approved by:_____

Date:_____

Checked by:_____C.C.Hsu_____

Approval by:_____Robert Chang_____

Date:_____8/3/2007_____

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SMD 3.2x2.5 16.367667MHz TCXO

MODEL NO.: TX0240A   REV. NO.: 1

Features:

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

RoHS Compliant
Lead free
**Lead-free soldering**

Description and Applications:

Surface mount 3.2mmx2.5mm TCXO for use in wireless communications devices

Electrical Specifications:

TX0240A	Specifications
Nominal Frequency, Fo	16.367667 MHz
Storage Temperature Range	-40°C to +85°C
Operating Temperature Range	-30°C to +85°C
Power Supply Voltage, Vcc	2.85 V ±5%
Output Voltage with Load 10pF//10KΩ, Vout	0.8 Vp-p min
Output Waveform	Clipped Sinewave
Power Supply Current, Icc	1.5 mA max
DC Terminal Input Impedance	100K ohms min
Frequency Tolerance as received	+/- 2 ppm max @ 25°C +/- 3°C
Frequency Stability a. Vs. Temperature (-30~85°C) b. Vs. Load varied 10pF//10KΩ+/-10% c. Vs. Supply Voltage varied 2.85+/-5%	+/- 0.5 ppm +/- 0.2 ppm +/- 0.1 ppm
Start Up Time (90% of final RF level in Vp-p)	2.0 msec max.
Harmonics	-5.0 dBc max
Frequency slope (Minimum of one measurement every 2°C)	±0.1ppm/°C@-20°C~+75°C ±0.3ppm/°C@-30°C~+85°C
Static temperature hysteresis	+/- 0.5 ppm max.
Aging	+/-1.0 ppm/year @25°C
SSB Phase Noise (@1KHz Carrier Offset)	-130 dBc/Hz max

Mechanical Dimensions (mm):

PIN CONNECTION	
#1	*VCONT
#2	GND
#3	OUTPUT
#4	VCC
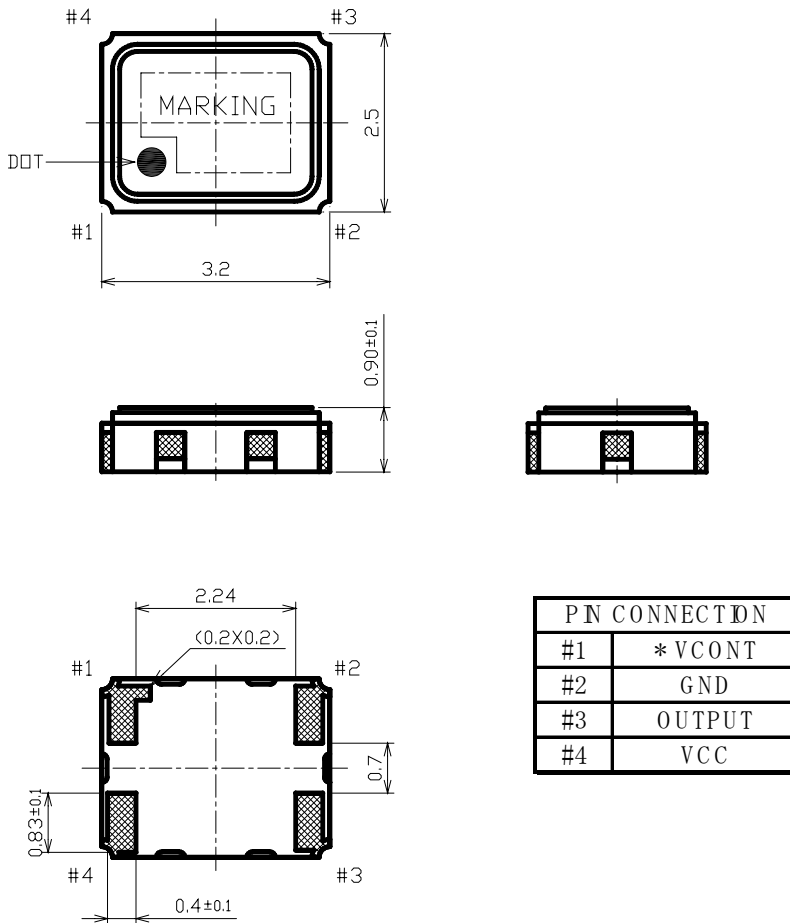
*(Note) Connect "VCONT" terminal to the ground on your circuit, otherwise oscillation frequency will shift from the output frequency specified.
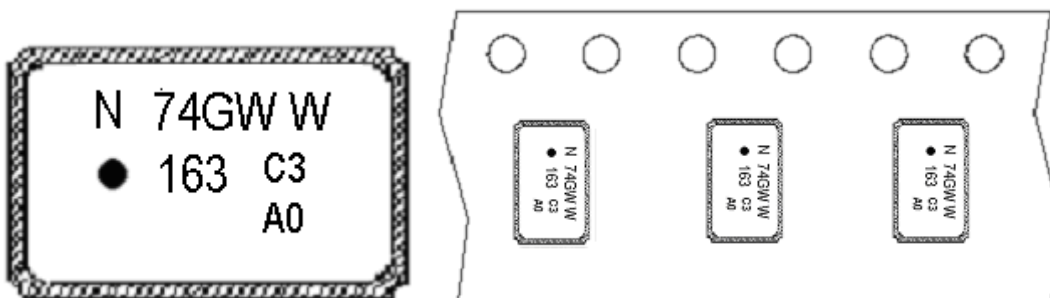
*(Note) The dimension tolerance is ±0.2mm.

Marking:

Line 1: Abbreviation of manufacture (N) + Lot No.(74G)+ Type Identification number (W W)

Line 2: Output frequency (163). The figures on the oscillator present the first 3 digits of the nominal frequency without the decimal point
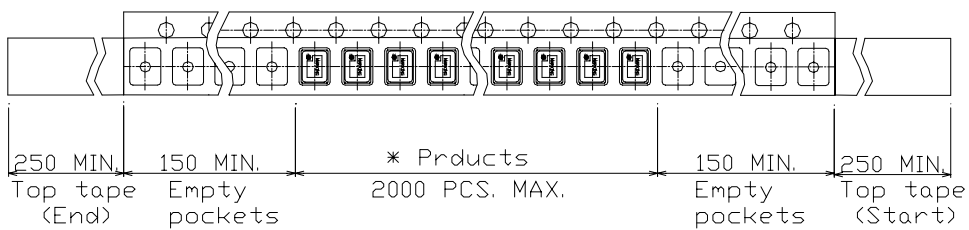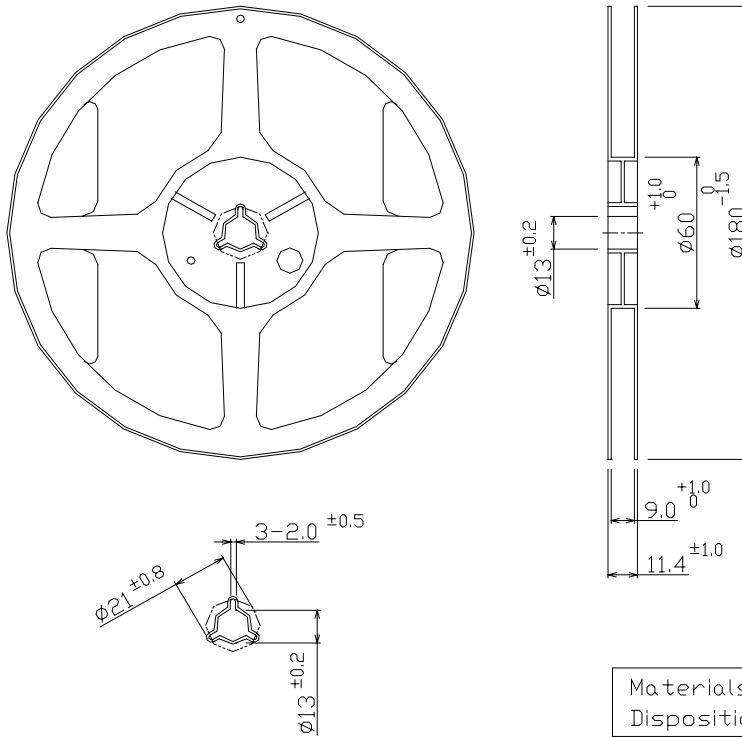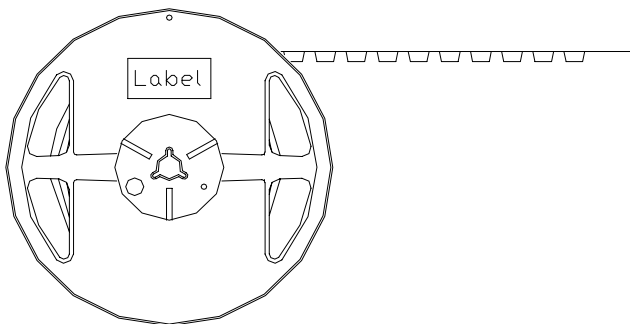
Line 3: Trace code (C3 A0)

Recommended Circuit

DC-cut capacitor of output is not put in TCXO. Please add DC-cut capacitor (1000pF) in output line.
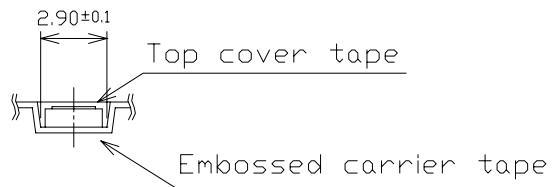
Packing (mm):

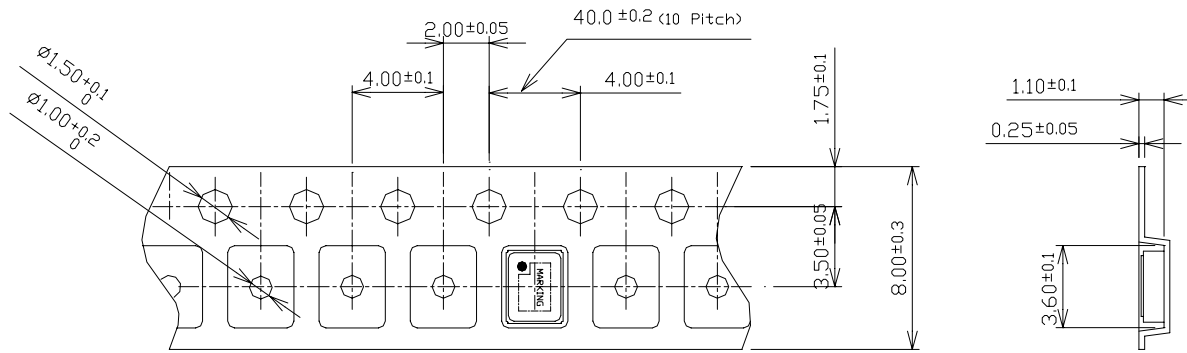## 1. Reel Dimension


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Materials : PS
Disposition : Antistatic
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250 MIN.
Top tape
(End)

150 MIN.
Empty
pockets

＊ Prducts
2000 PCS. MAX.
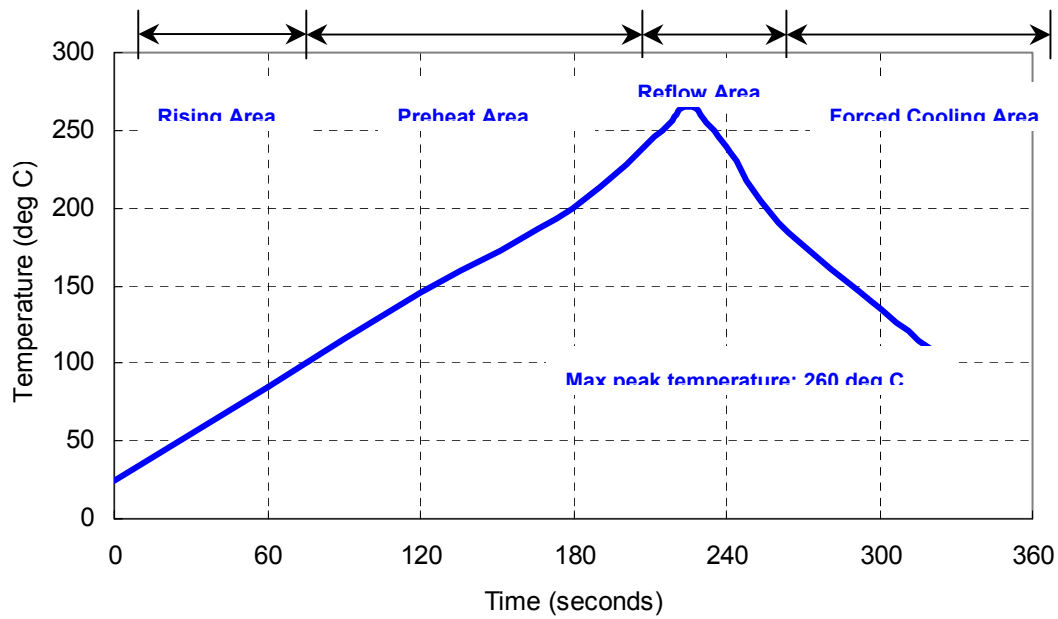
150 MIN.
Empty
pockets

250 MIN.
Top tape
(Start)

＊ There are no vacant pockets for this area.

Label

2. Tape Dimension

Reflow Profile:

Notes of the Usage:

1. Touch the solder iron at 260+/-5 deg C onto the leads for 10+/-2 sec max or touch the solder at 350+/-5 deg C onto the leads for 3+/-0.5 sec.
2. In the customer's reflow process, if it will remain some mechanical stress at the soldering terminals, also make some cracks on the soldering termination. Some cracks will cause open or short circuit and cause of thermal increasing or smoking. Don't make any excess mechanical stress to soldering points.
3. In case of giving a heavy shock to the products, it may make an open or short circuit and cause of thermal increasing and smoking. To avoid heavy shock impact applying to products is strictly required.

Notes of the Storage:

1. To keep products under the condition at the room temperature (-5~35 deg C) with normal humidity (45~75%). Absorption of moisture and dewdrop may make inferiority of characteristics and a short circuit.
2. Oxidization of terminals shall make the solderability more inferior. Dusts and corrosive gas will make a cause of the open or short circuit. Keep it in the clean place where is not in dusty and no corrosive gas.
3. Use the unti-static material to the storage package.
4. Don't put any excess weight to the TCXO in the storage process.
5. Don't move the product from the cold place to the hot place in the short time, otherwise it may make some dew-drop, then a short circuit may happen in case.
6. Storage periods should be maximum 6 months under condition of above item 1 after delivery from TST factory.
7. Once open the bag, there is possibility of electrical characteristics deterioration due to absorption of moisture. So, please use parts within 7 days after opening the bag.
8. If you have to keep parts without using after opening the bag, please put the drying agent in the bag, fold the bag and keep it in the place where temperature and humidity are controlled (nitrogen atmosphere box etc.)