



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
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## Approval Sheet For Product Specification

Issued Date: 11/29/2006 (REV. NO: 1)

Product Name: SMD 5.0x3.2 16.36625MHz Crystal Unit

TST Parts No.: TZ1015A

Customer Parts No. : \_\_\_\_\_

Company: \_\_\_\_\_

Division: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Checked by: \_\_\_\_\_ Kelly Huang

Approval by: \_\_\_\_\_ Robert Chang

Date: \_\_\_\_\_ 11/29/2006



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## SMD 5.0x3.2 16.36625 MHz Crystal Unit

MODEL NO.: TZ1015A

REV. NO.: 1

### Features:

- Surface Mount Seam Weld Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature

RoHS Compliant  
Lead free  
Lead-free soldering

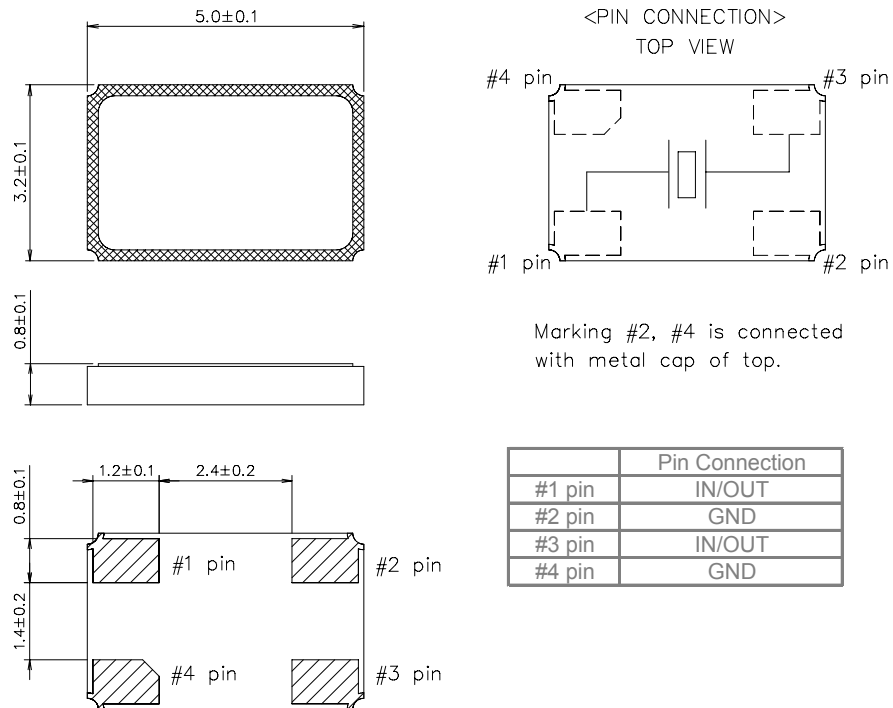
### Description and Applications:

Surface mount 5.0mmx3.2mm crystal unit for use in wireless telecommunications devices, especially for a need of ultra miniature package for mobility.

### Electrical Specifications:

| TZ1015A                                                                                                                            | Specification            |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Nominal Frequency                                                                                                                  | 16.366250 MHz            |
| Mode of Oscillation                                                                                                                | Fundamental              |
| Storage Temperature Range                                                                                                          | -40°C to +85°C           |
| Operating Temperature Range                                                                                                        | -40°C to +85°C           |
| Frequency Stability over Operating Temperature Range (Relative Bechmann Angle)                                                     | Ref 2.5~6.5'             |
| Frequency Perturbation (from 4 <sup>th</sup> order curve fit, -10°C to +70°C, test with 5°C one point & CL 8pF & 50uW drive power) | +/-0.50 ppm              |
| Frequency Make Tolerance (FL)                                                                                                      | +/-10 ppm @ 25°C +/- 3°C |
| Equivalent Series Resistance (ESR)                                                                                                 | 35 Ω max                 |
| Nominal Drive Level                                                                                                                | 50 uW                    |
| Shunt Capacitance (Co)                                                                                                             | 3 pF max                 |
| Motional Capacitance (C1)                                                                                                          | 5.5fF typical            |
| Load Capacitance (CL)                                                                                                              | 8 pF                     |
| Insulation Resistance                                                                                                              | 500 MΩ min./DC 100V      |
| Aging                                                                                                                              | +/-1.0 ppm/year @25°C    |
| Marking                                                                                                                            | No marking               |

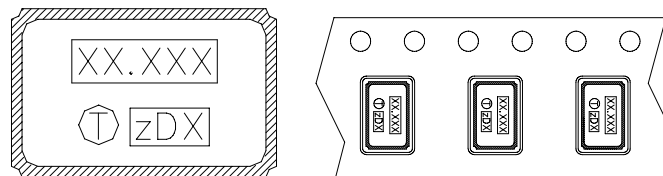
## Mechanical Dimensions (mm):



## Marking:

Line 1: Frequency (16.366)

Line 2: TST Logo + Crystal Product Code + Date Code



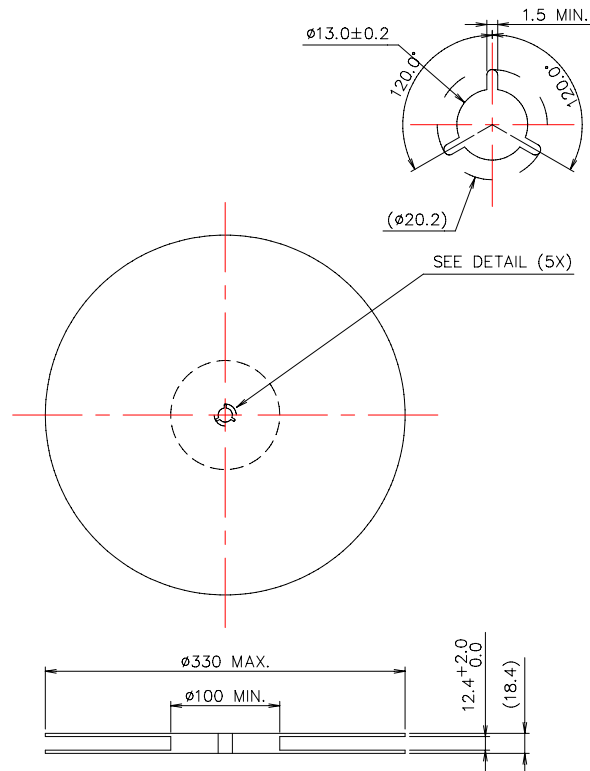
## Product Code Table

| Year         | 2001<br>2005 | 2002<br>2006 | 2003<br>2007 | 2004<br>2008 |
|--------------|--------------|--------------|--------------|--------------|
| Product Code | Z            | z            | <u>Z</u>     | <u>z</u>     |

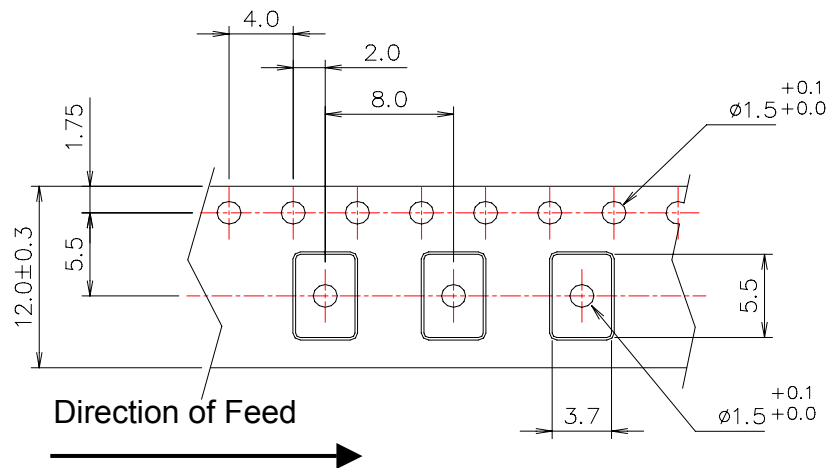
## Date Code Table

| 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  $\pm 0.1$  mm.
2. Material: conductive polystyrene with color black.
3. 10 pitch cumulative tolerance  $\pm 0.2$  mm.

# Reflow Profile:

