



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

Product Specifications Approval Sheet

Product Description: Crystal Unit SMD 5.0x3.2 18.432MHz

TST Part No.: TZ0609B

Customer Part No. : _____

| |
|-----------------------------|
| Customer signature required |
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ Chia Haur Rau *C.H. Rau*

Approved by: _____ Kelly Huang *Kelly Huang*

Date: _____ 05/06/2013

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



TAI-SAW TECHNOLOGY CO., LTD.
Crystal Unit SMD 5.0x3.2 18.432MHz

MODEL NO.: TZ0609B

REV. NO.: 2

Revise:

| Rev. | Rev. Page | Rev. Account | Date | Ref. No. | Revised by |
|------|-----------|--------------------|----------|---------------|---------------|
| 1 | N/A | Initial release | 07/07/13 | N/A | Sam Sung |
| 2 | 4 | Update for marking | 5/06/13' | ECN-201300155 | Chia Haur Rau |



TAI-SAW TECHNOLOGY CO., LTD.

Crystal Unit SMD 5.0x3.2 18.432MHz

MODEL NO.: TZ0609B

REV. NO.: 2

Features:

- Surface Mount Hermetic Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature
- Ultra Miniature Package

RoHS Compliant
Lead free
Lead-free soldering

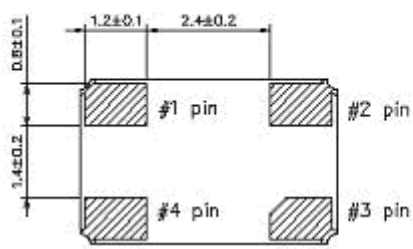
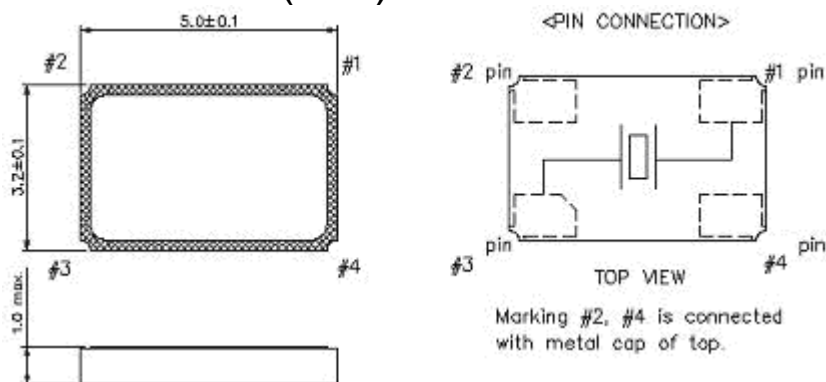
Description and Applications:

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

Electrical Specifications:

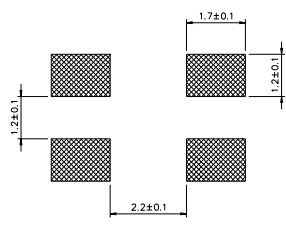
| TZ0609B | Specification |
|--|---|
| Nominal Frequency | 18.432000MHz |
| Mode of Oscillation | Fundamental |
| Storage Temperature Range | -40°C to +85°C |
| Operating Temperature Range | -20°C to +70°C |
| Frequency Stability over Operating Temperature Range | +/-10 ppm (referred to the value at 25°C) |
| Frequency Make Tolerance (FL) | +/-10 ppm @ 25°C +/- 3°C |
| Equivalent Series Resistance (ESR) | 40 Ω max. |
| Nominal Drive Level | 10uW typical and 100uW max |
| Shunt Capacitance (Co) | 2.0 pF max |
| Load Capacitance (CL) | 18 pF |
| Marking | Laser marking |
| Unit Weight | 0.037+/-0.005g |

Mechanical Dimensions (mm):



| | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT |
| #2 pin | GND |
| #3 pin | IN/OUT |
| #4 pin | GND |

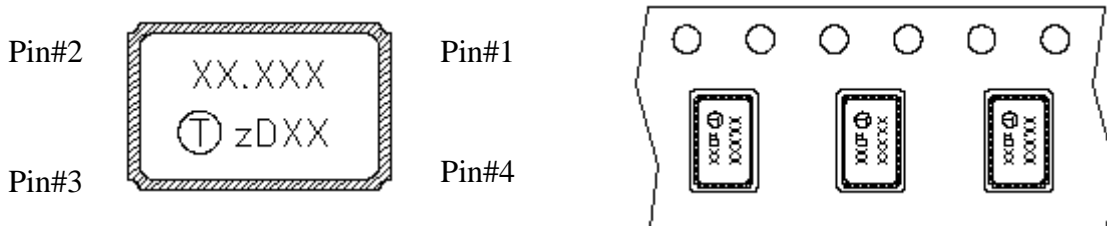
Recommended Land Pattern: (unit: mm)



Marking:

Line 1: Frequency (18.432)

Line 2: TST Logo + Crystal Product Code + Date Code + Traceability code (1 or 2 letters)



The inner vision of Pin#1, Pin#4 side is XTAL blank mounting pad.

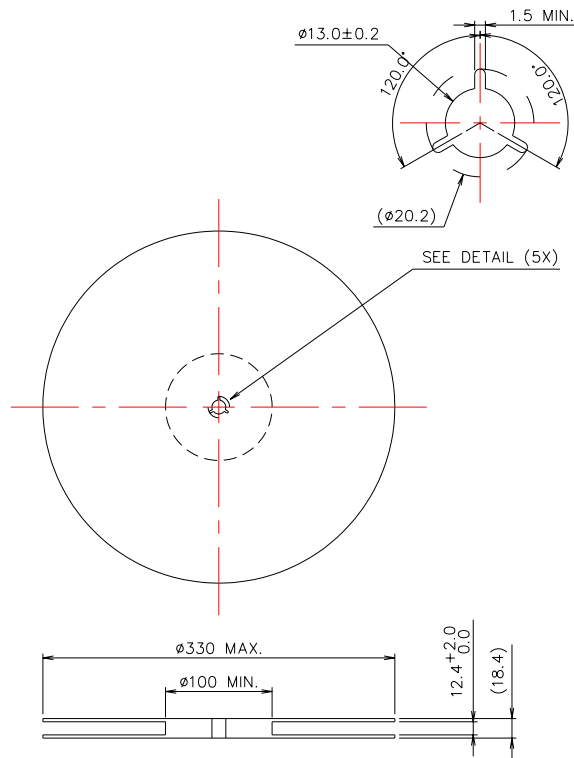
Product Code Table

| Year | 2009 | 2010 | 2011 | 2012 |
|--------------|------|------|------|------|
| | 2013 | 2014 | 2015 | 2016 |
| | 2017 | 2018 | 2019 | 2020 |
| product code | Z | z | Z | Z |

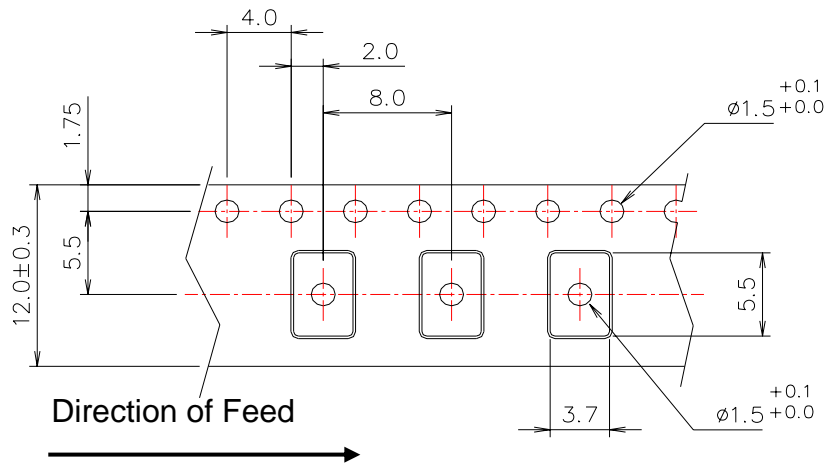
Date Code Table

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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):

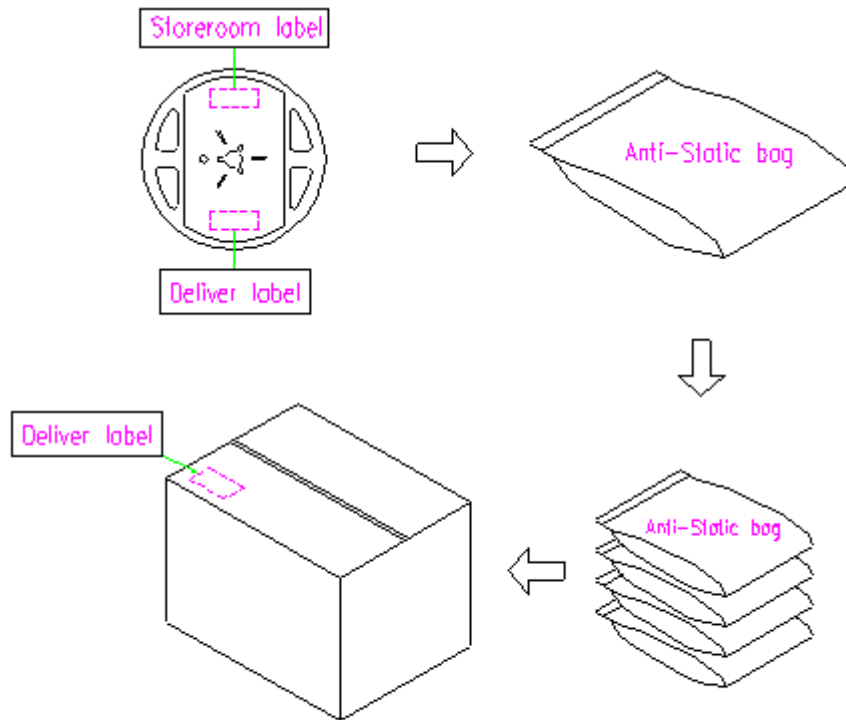


[NOTE]:

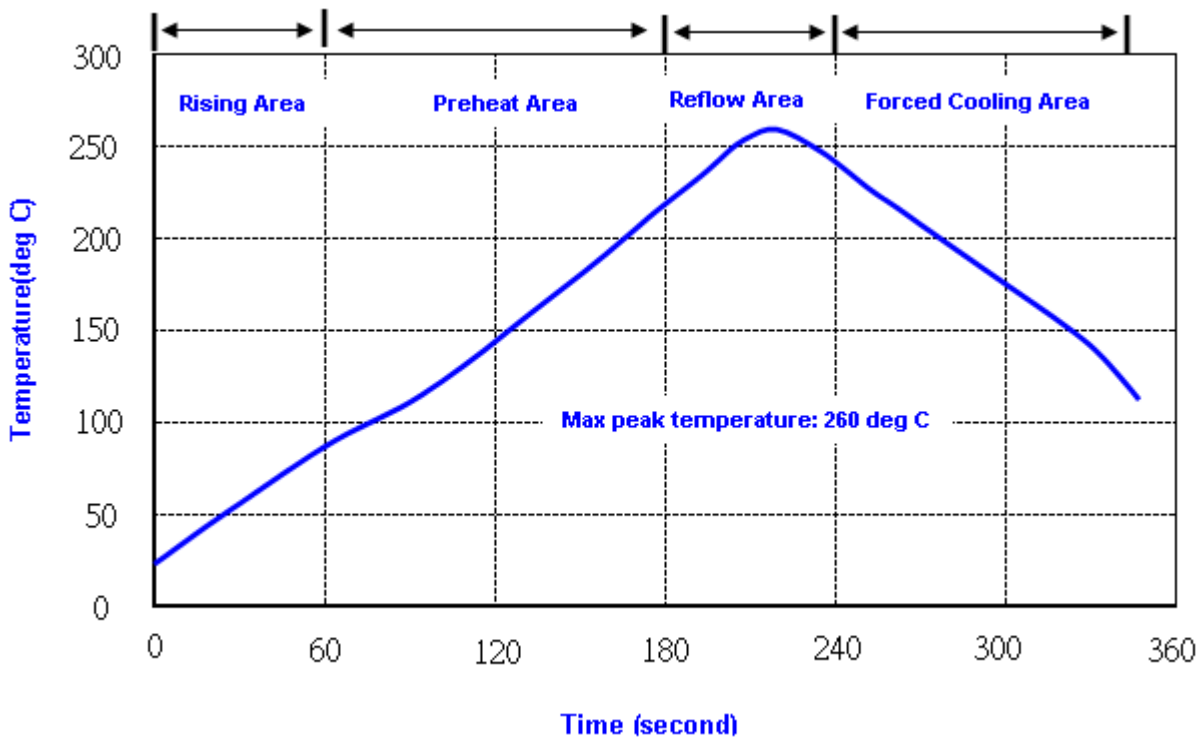
1. Unless otherwise specified tolerance on dimension +/-0.1 mm.
2. Material: conductive polystyrene with color black.
3. 10 pitch cumulative tolerance +/-0.2 mm.

Packing Quantity/Packing:

3K pcs maximum per reel



Reflow Profile:



- Note:**
1. Max peak temperature: 260 \pm 5 deg C; Time: 10 \pm 2 sec
 2. Temperature: 217 \pm 5 deg C; Time: 90~100 sec

Reliability Specifications

| Test name | Test process / method | Reference standard |
|--|---|--|
| Mechanical characteristics | | |
| resistance to Soldering heat (IR reflow) | Temp./ Duration : 260°C /10sec x2 times Total time : 4min.(IR-reflow) | EIAJED-4701 -300(301)M(II) |
| Vibration | Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc. | MIL-STD 202F method 201A |
| Mechanical Shock | directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine | MIL-STD 202F method 213C |
| Solderability | Solder Temperature:265±5°C Duration time: 5±0.5 seconds. | MIL-STD 883G method 2003 |
| Environmental characteristics | | |
| Thermal Shock | Heat cycle conditions -55 (30min) 125 (30min) * cycle time : 10 times | MIL-STD 883G method 1010.7 |
| Humidity test | Temperature : 70 ± 2 °C Relative humidity : 90~95% Duration : 96 hours | MIL-STD 202F method 103B |
| Dry heat (Aging test) | Temperature : 125 ± 2 °C Duration : 168 hours | MIL-STD 883G method 1008.2 condition C |
| PCT test | Pressure: 2.06kg/cm ² (2.03*10 ⁵ pa) Temperature : 121 ± 2 °C Relative humidity : 100% Duration : 24 hours | EIAJED-4701-3 B-123A |

单击下面可查看定价，库存，交付和生命周期等信息

[>>TAI-SAW\(台湾嘉硕\)](#)