



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

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Product Specifications Approval Sheet

Product Description: SAW Resonator 868.35 MHz SMD 3.8X3.8 mm

TST Parts No.: TC0163A

Customer Parts No.: _____

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

Checked by: _____ Hongpu Lin *Hongpu Lin*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/11/08

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.



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SAW Resonator 868.35 MHz

MODEL NO.: TC0163A

REV. NO.:3.0

A. FEATURES:

- 1-Port Resonator.

RoHS Compliant
Lead free
Lead-free soldering

B. MAXIMUM RATING:

1. Input Power Level: 0 dBm
2. DC voltage: 12 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)

Electrostatic Sensitive Device

C. ELECTRICAL CHARACTERISTICS:

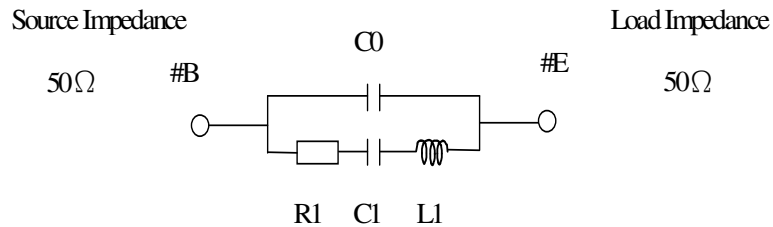
| Characteristic | Units | Minimum | Typical | Maximum |
|--------------------------------|----------------|-------------------|---------|---------|
| Center frequency Fr | MHz | 868.275 | 868.350 | 868.425 |
| Insertion Loss IL | dB | - | 1.3 | 2.5 |
| Equivalent Elements | | | | |
| Motional capacitance C1 | fF | - | 1.21 | - |
| Motional inductance L1 | μH | - | 27.66 | - |
| Motional resistance R1 | Ohm | - | 17.92 | - |
| Parallel capacitance Co | pF | - | 2.51 | - |
| Temp.coeff. | ppm/c*2 | - | 0.032 | - |
| Turnover To | deg.C | 10 | 25 | 40 |
| Package size | | SMD 3.8X3.8X1.2mm | | |

D. FREQUENCY CHARACTERISTICS:



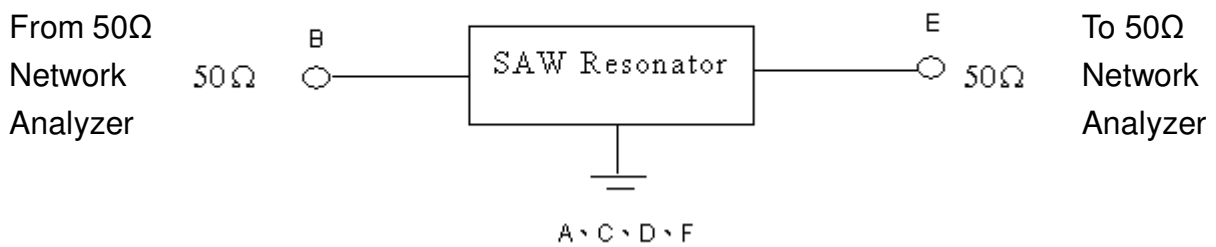
E. EQUIVRENT CIRCUIT:

One-Port Resonator:

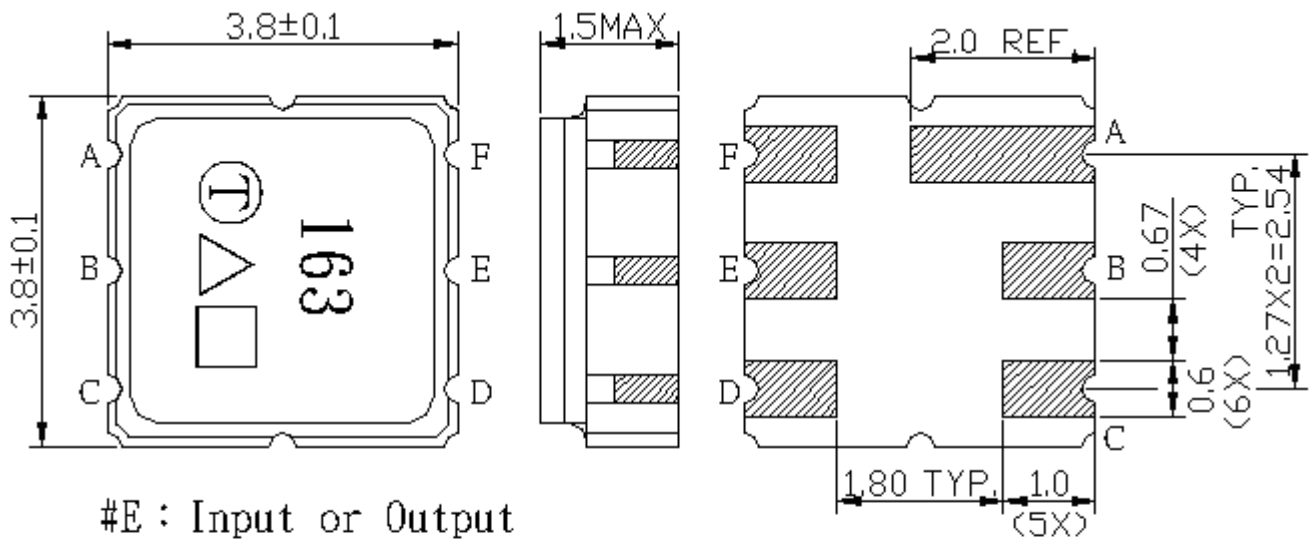


F. TEST CIRCUIT:

Network analyzer



G. OUTLINE DRAWING:



#E : Input or Output
 #B : Output or Input
 #A、C、D、F : Ground
 △ : Year code
 □ : Date code
 Unit : mm

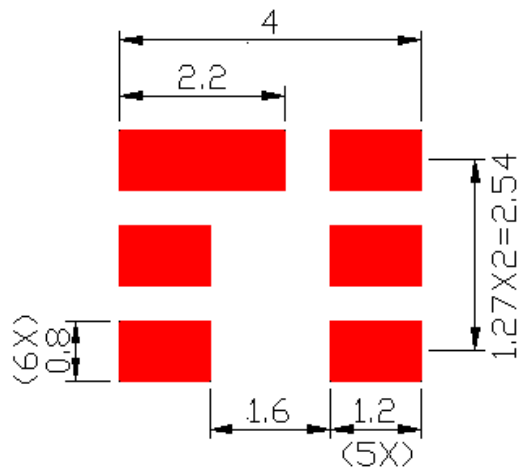
Product / Year Code- 2year cycle

| | | |
|--------------|--------------|--------------|
| Year | 2019 2021 | 2020 2022 |
| Product Code | C | c |

Week Code Table

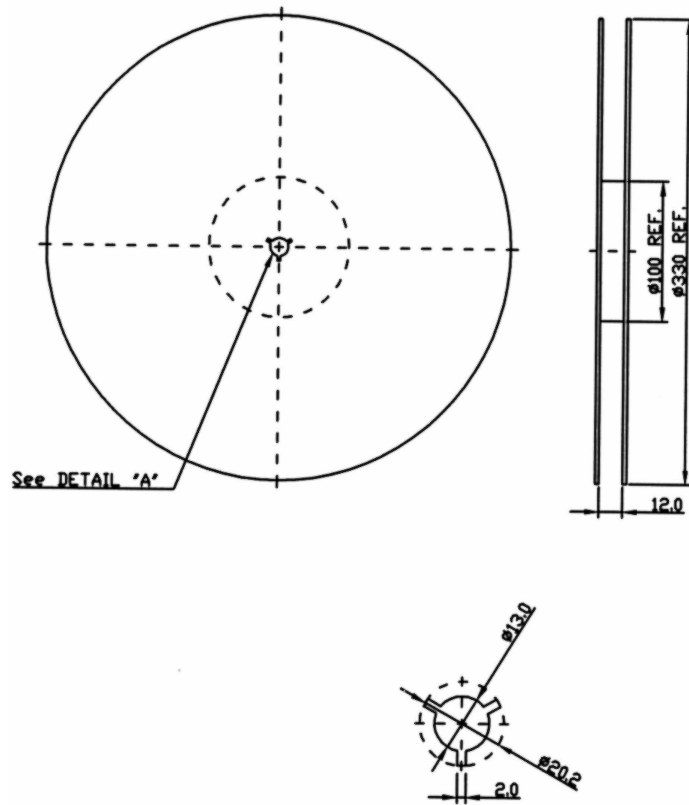
| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| WK14 | WK15 | WK16 | WK17 | WK18 | 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 |

H. PCB FOOTPRINT:

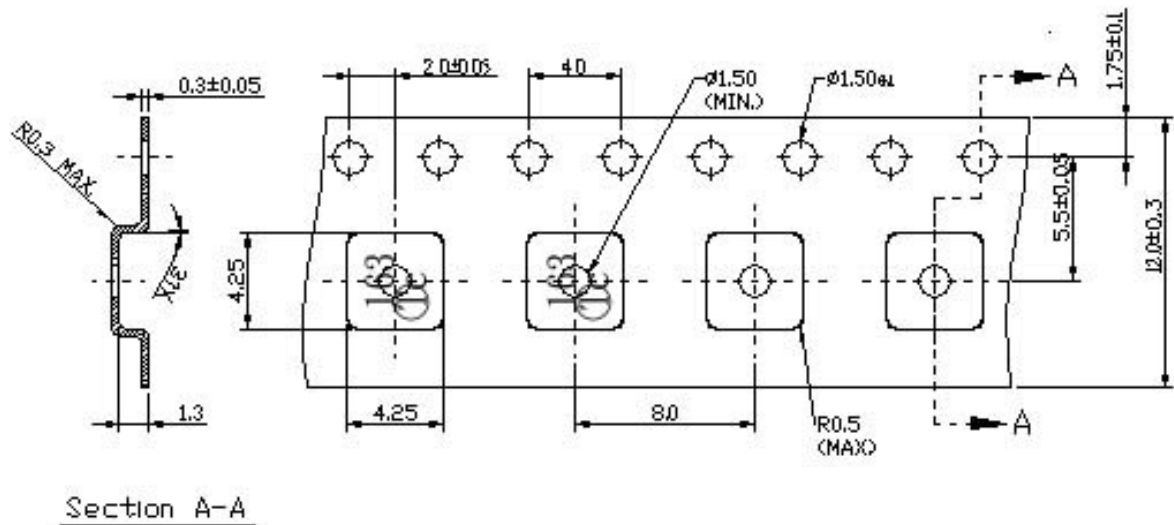


I. PACKING:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



2.TAPE DIMENSION



Section A-A

J. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

