



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 433.92 MHz SMD 3.0X3.0 mm

TST Part No.: TC0219E

Customer Part No.: _____

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

Checked by: Jimmy Han *Jimmy Han*

Approved by: Francis Chen *Francis Chen*

Date: 2011/01/11

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 433.92 MHz

MODEL NO.: TC0219E

REV. NO.:3

A. FEATURES:

- 1-Port Resonator.

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

C. ELECTRICAL CHARACTERISTICS:

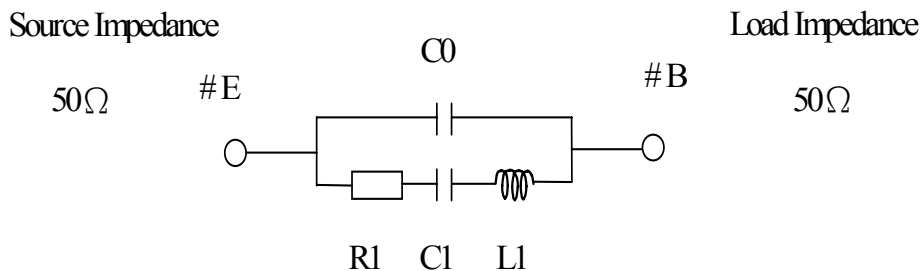
Reference Temperature $T_A=25^\circ\text{C}$

| Characteristic | Units | Minimum | Typical | Maximum |
|--|----------------|--------------------|---------|---------|
| Center frequency F_c | MHz | 433.770 | 433.920 | 434.070 |
| Insertion Loss IL | dB | - | 1.58 | 2.2 |
| Unload quality factor Q_U | | 6000 | 11000 | - |
| Ageing of fc | ppm/yr | - | - | ±10 |
| Motional capacitance C1 | fF | - | 1.5 | - |
| Motional inductance L1 | μH | - | 89.79 | - |
| Motional resistance R1 | Ohm | - | 22.25 | - |
| Parallel capacitance C₀ | pF | - | 2.95 | - |
| Frequency Temperature coefficient (TC _f) | ppm/c*2 | - | 0.032 | - |
| Turnover To | deg.C | 10 | 25 | 40 |
| Package size | | SMD 3.0X3.0X1.1 mm | | |

Temperature dependence of fc: $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$

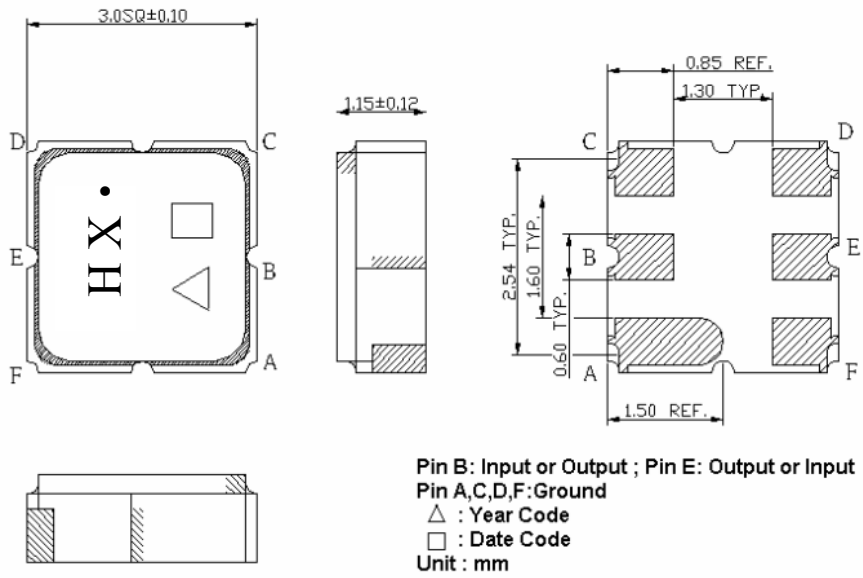
D. EQUIVALENT CIRCUIT:

One-Port Resonator:



RoHS Compliant
Lead free
Lead-free soldering

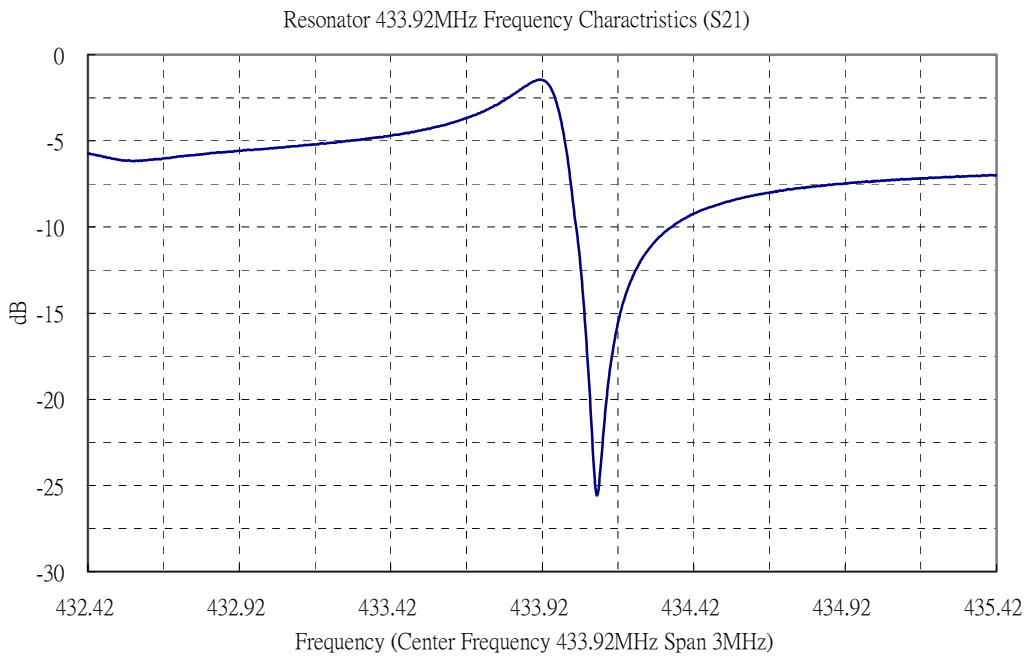
E. OUTLINE DRAWING:



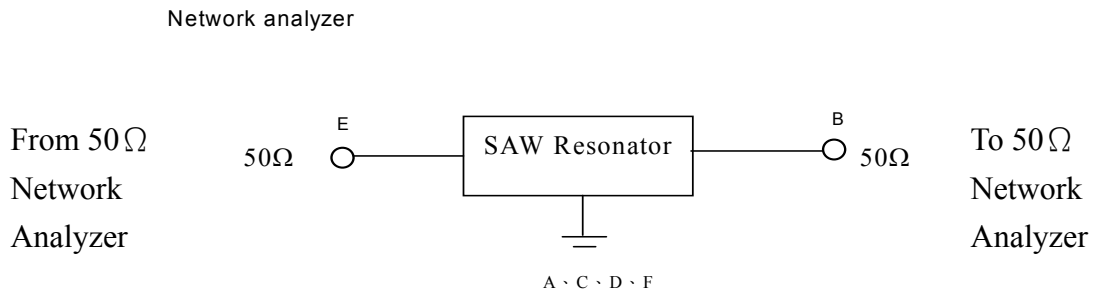
Date code: Provided by planer each year

Year code: 8 for 2008,9 for 2009,...

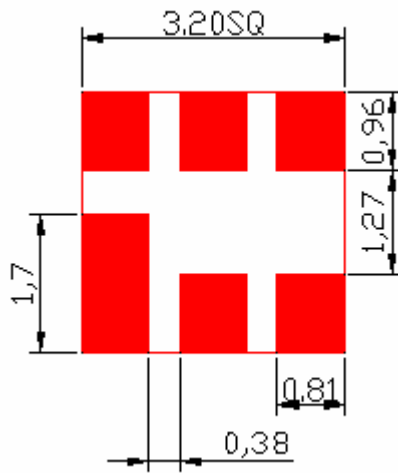
F. FREQUENCY CHARACTERISTICS:



G. TEST CIRCUIT:

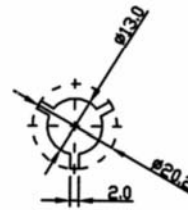
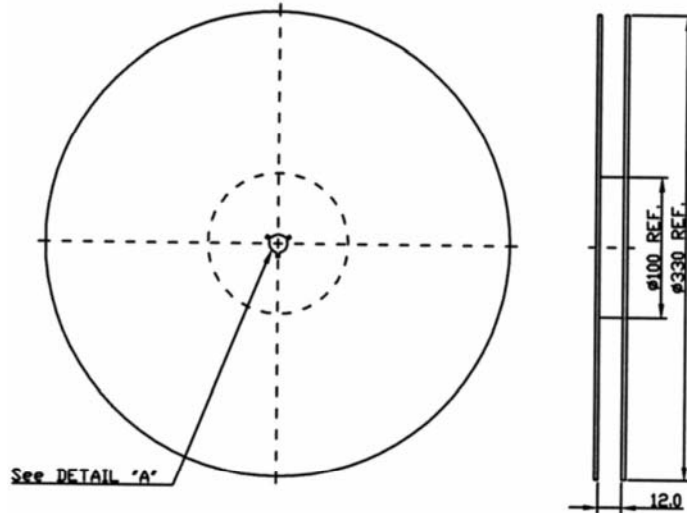


H. PCB FOOTPRINT:

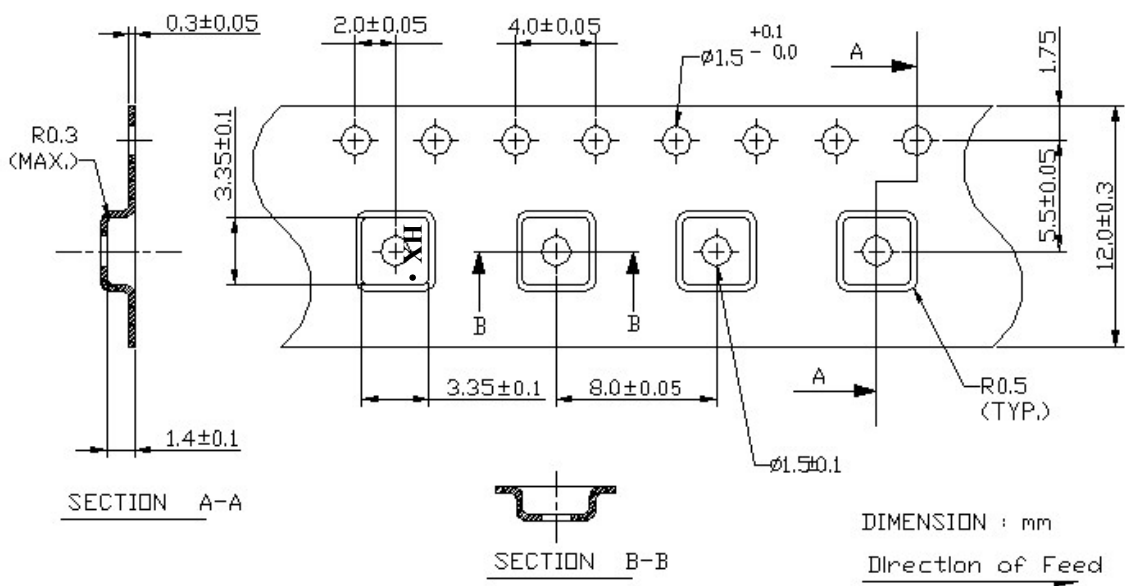


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H.RECOMMENDED REFLOW PROFILE:

