**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: SAW Resonator 303.852 MHz SMD 3.8X3.8 mm

TST Part No.: TC0583A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Hongpu Lin Hong Pu Lin

Approval by:_____ Andy Yu Andy Yu

Date:_____ 2019/04/25

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 303.852MHz

MODEL NO.: TC0583A REV. NO.:2.0

A. FEATURES:

1. 1-Port Resonator.

RoHS Compliant
Lead free
Lead-free soldering

B. MAXIMUM RATING:

1.Input Power Level: 0 dBm

**E**lectrostatic **S**ensitive **D**evice (**ESD**)

2.DC voltage: 5 V

3.Operating Temperature: -40°C to +85°C

4.Storage Temperature: -40°C to +85°C

5. Moisture Sensitive Level: Level 1 (MSL1)

C. ELECTRICAL CHARACTERISTICS:

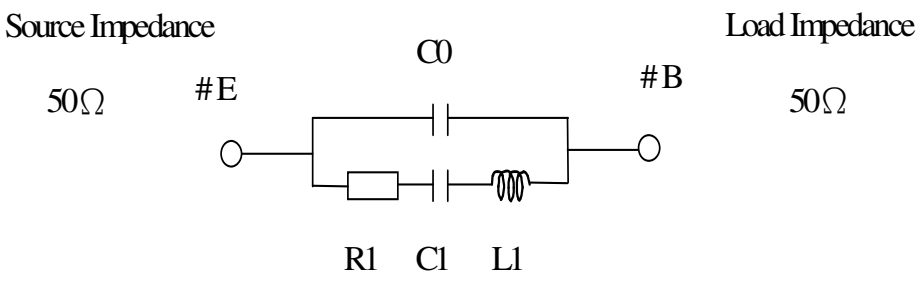
Reference Temperature $T_A$=25℃

| Characteristic | Units | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Center frequency **Fc** | **MHz** | 303.777 | 303.852 | 303.927 |
| Insertion Loss **IL** | **dB** | - | 1.3 | 1.8 |
| Unload quality factor **$Q_U$** | | 10000 | 17500 | - |
| Ageing of fc | **ppm/yr** | - | - | ±10 |
| Motional capacitance **C1** | **fF** | - | 2.04 | - |
| Motional inductance **L1** | **μH** | - | 134.3 | - |
| Motional resistance **R1** | **Ohm** | - | 15.5 | - |
| Parallel capacitance **Co** | **pF** | - | 3.85 | - |
| Frequency Temperature coefficient ($TC_f$) | **ppm/c*2** | - | -0.032 | - |
| Turnover To | **deg.C** | -5 | 10 | 25 |
| Package size | | SMD 3.8X3.8X1.4 mm | | |

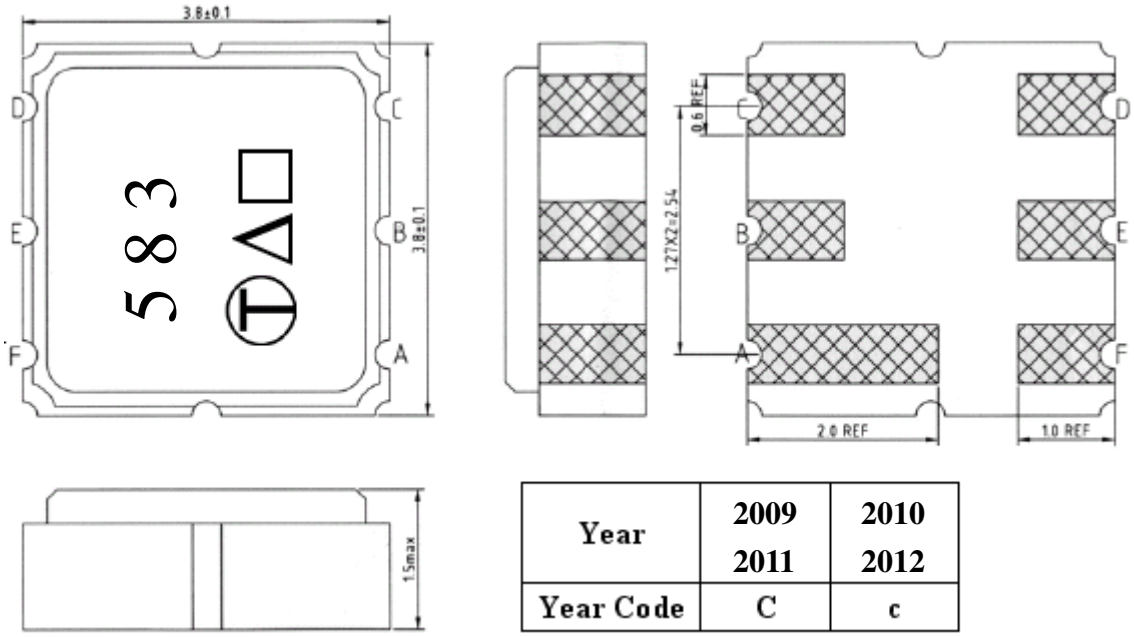
Temperature dependence of fc: $fc(T_A)=fc(T_O)(1-TC_f(T_A-T_O)^2)$

D.EQUVIRENT CIRCUIT:

One-Port Resonator:



## E.OUTLINE DRAWING:




| Year | 2009<br>2011 | 2010<br>2012 |
|---|---|---|
| Year Code | C | c |

**#E：Input or Output**

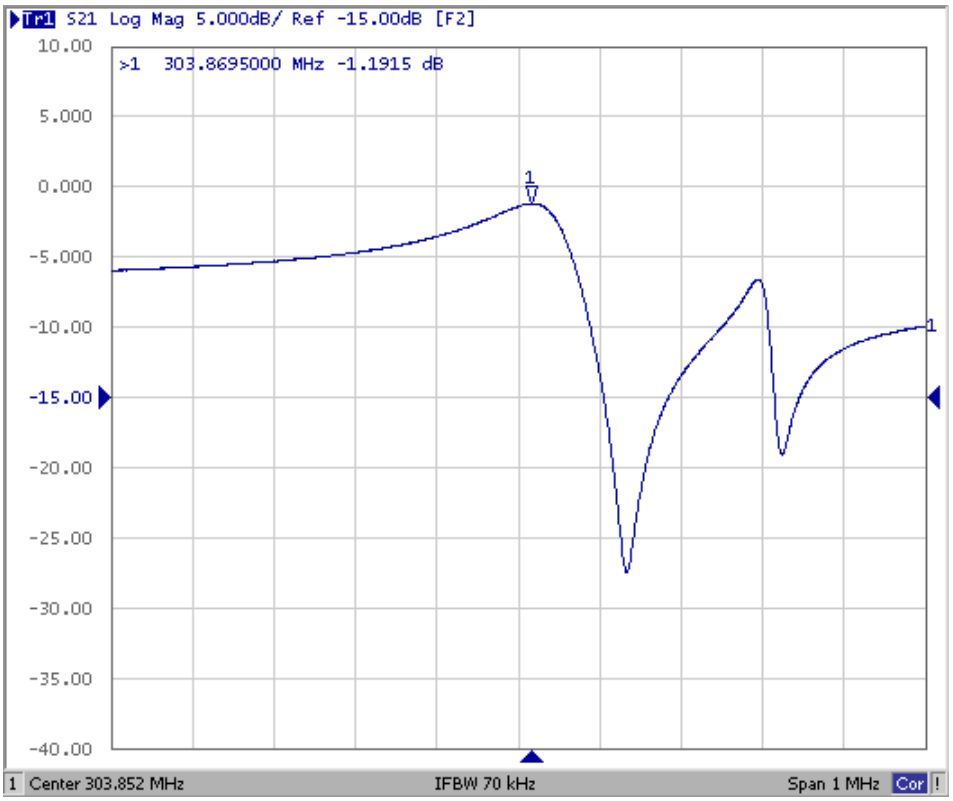
**#B：Output or Input**

**#A、C、D、F：Ground**

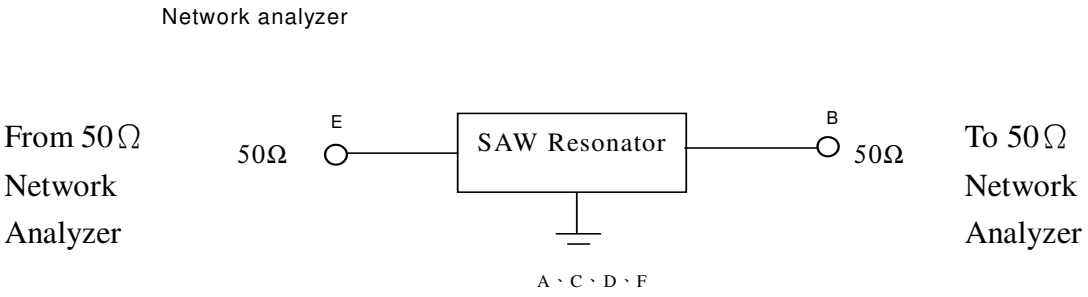
**Δ：Year Code**

**□：Data Code(Follow the table provided by planer each year )**

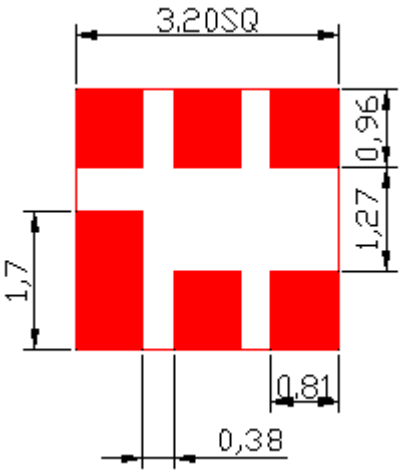
## F.FREQUENCY CHARACTERISTICS:



## G. TEST CIRCUIT:

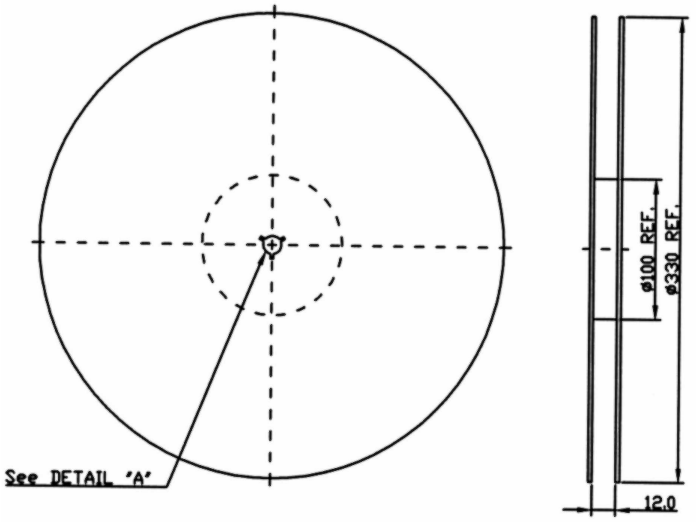


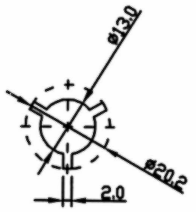

## H. PCB FOOTPRINT:



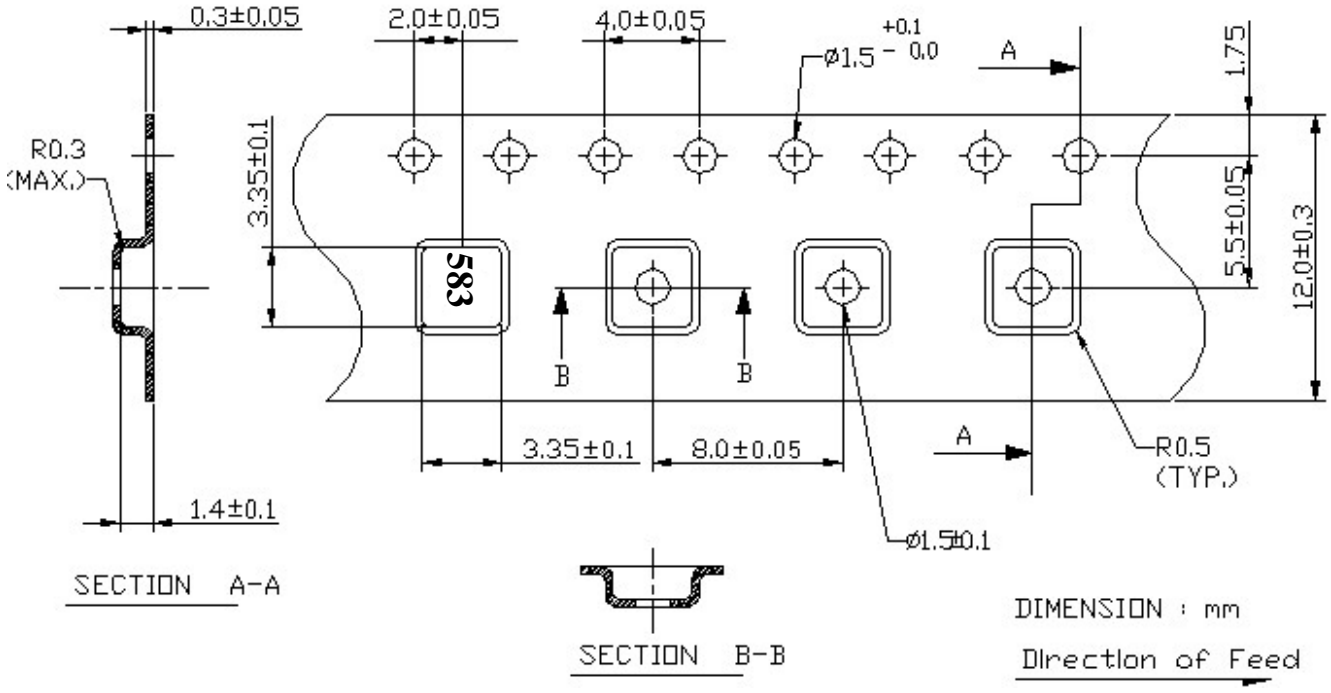
G. PACKING:

1.REEL DIMENSION




2.TAPE DIMENSION



J. RECOMMENDED REFLOW PROFILE: