



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Description: SAW Resonator 303.825 MHz SMD 3.0X3.0 mm

TST Part No.: TC0548A

Customer Part No.: \_\_\_\_\_

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

Checked by: Jimmy Han *Jimmy Han*

Approved by: Francis Chen *[Signature]*

Date: 2011/01/10

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.

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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## SAW Resonator 303.825MHz

MODEL NO.: TC0548A

REV. NO.:1

### A. FEATURES:

- 1. 1-Port Resonator.

### B. MAXIMUM RATING:

- 1. Input Power Level: 10 dBm
- 2. DC voltage: 5 V
- 3. Operating Temperature: -40°C to +85°C
- 4. Storage Temperature: -40°C to +85°C

### C. ELECTRICAL CHARACTERISTICS:

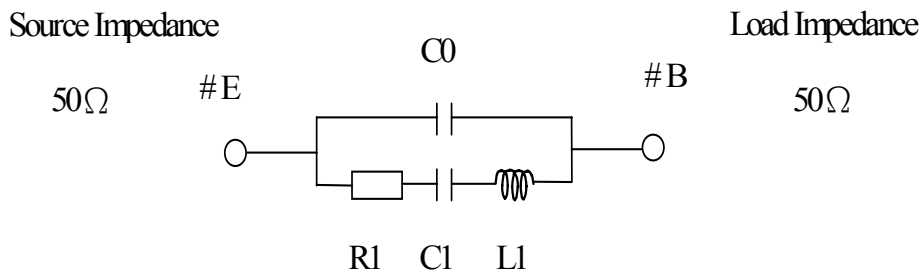
Reference Temperature  $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fc</b>	<b>MHz</b>	303.750	303.825	303.900
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.3	1.8
Unload quality factor <b>Q<sub>U</sub></b>		10000	17300	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	2.05	-
Motional inductance <b>L1</b>	<b>μH</b>	-	135.9	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	14.97	-
Parallel capacitance <b>C<sub>0</sub></b>	<b>pF</b>	-	3.88	-
Frequency Temperature coefficient (TC <sub>f</sub> )	<b>ppm/c*2</b>	-	0.032	-
Turnover To	<b>deg.C</b>	-5	10	25
Package size		SMD 3.0X3.0X1.4 mm		

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

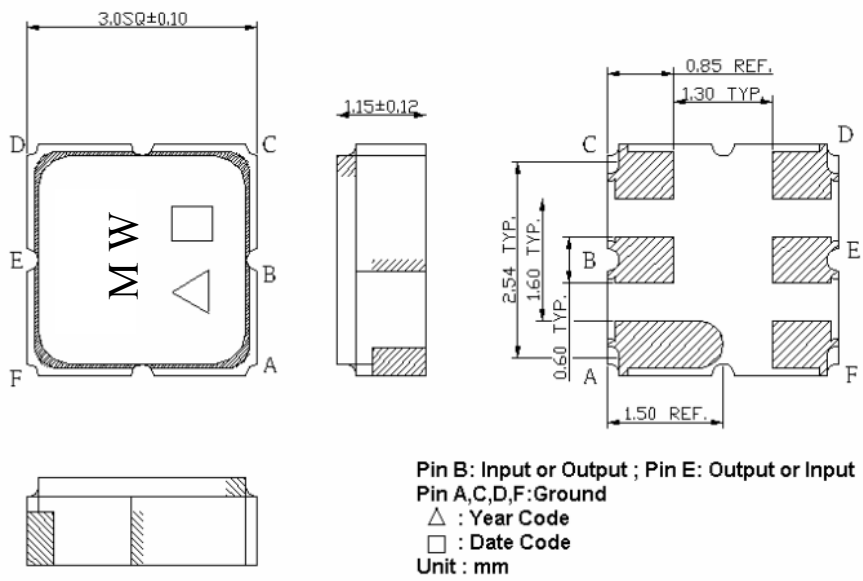
### D. EQUIVRENT CIRCUIT:

One-Port Resonator:



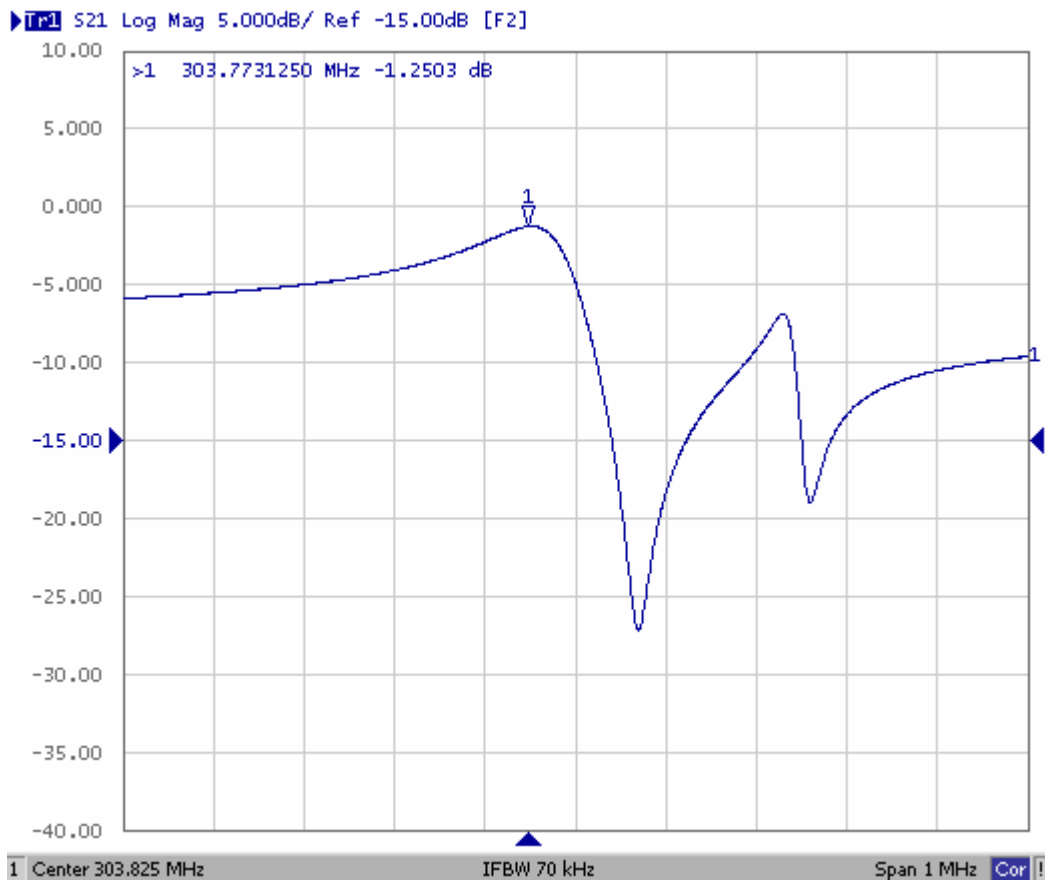
RoHS Compliant  
Lead free  
Lead-free soldering

**E. OUTLINE DRAWING:**

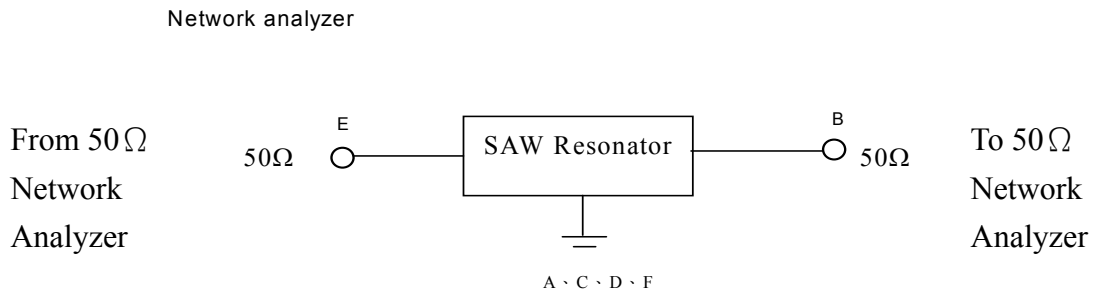


Date code: Provided by planer each year  
 Year code: 9 for 2009, 0 for 2010, 1 for 2011...

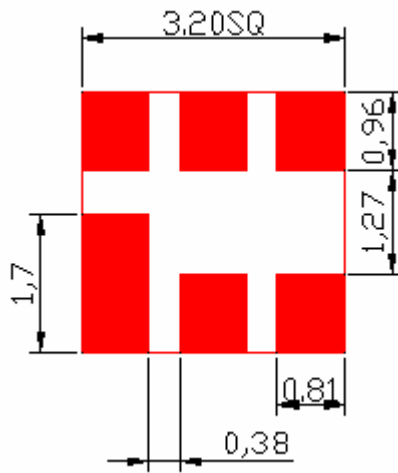
**F. FREQUENCY CHARACTERISTICS:**



G. TEST CIRCUIT:

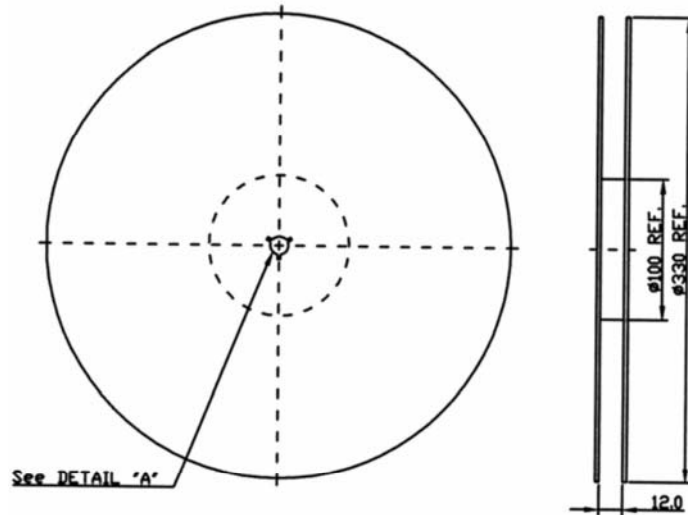


H. PCB FOOTPRINT:

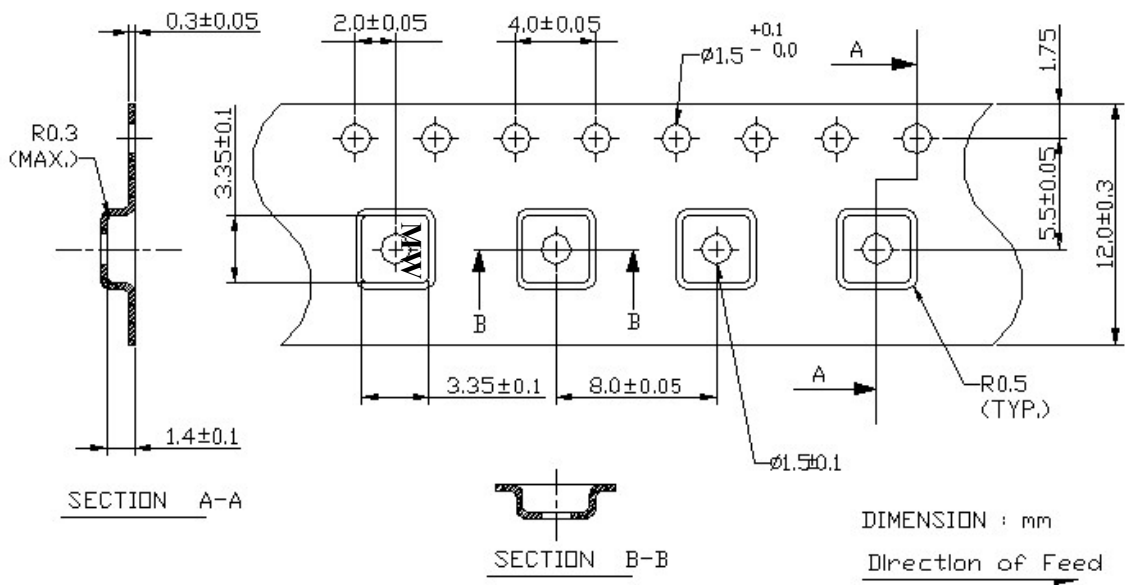


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



**J. RECOMMENDED REFLOW PROFILE:**

