

# 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

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## Product Specifications Approval Sheet

Product Description: SAW Resonator 433.72 MHz SMD 3.0X3.0 mm

TST Part No.: TC0554A

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

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

Checked by: Jimmy Han 

Approved by: Francis Chen 

Date: 2010/08/09

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 433.72 MHz

MODEL NO.: TC0554A

REV. NO.:1

### A. FEATURES:

- 1-Port Resonator.

### B. MAXIMUM RATING:

1. Input Power Level: 0 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:

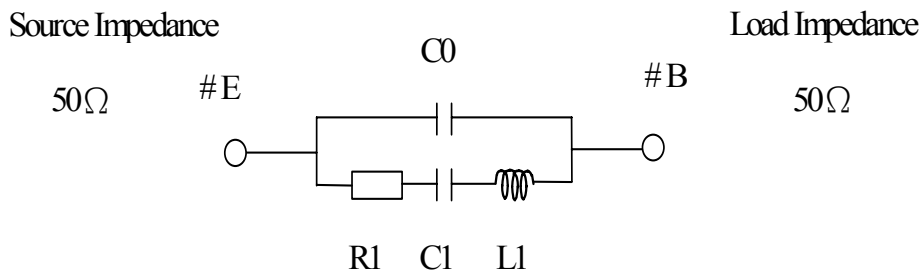
Reference Temperature  $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>F<sub>c</sub></b>	<b>MHz</b>	433.645	433.720	434.795
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.7	2.2
Unload quality factor <b>Q<sub>U</sub></b>		6000	11000	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.51	-
Motional inductance <b>L1</b>	<b>μH</b>	-	89.5	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	23	-
Parallel capacitance <b>C<sub>0</sub></b>	<b>pF</b>	-	3.15	-
Frequency Temperature coefficient (TC <sub>f</sub> )	<b>ppm/c*2</b>	-	0.032	-
Turnover To	<b>deg.C</b>	-	40	-
Package size		SMD 3.0X3.0X1.1 mm		

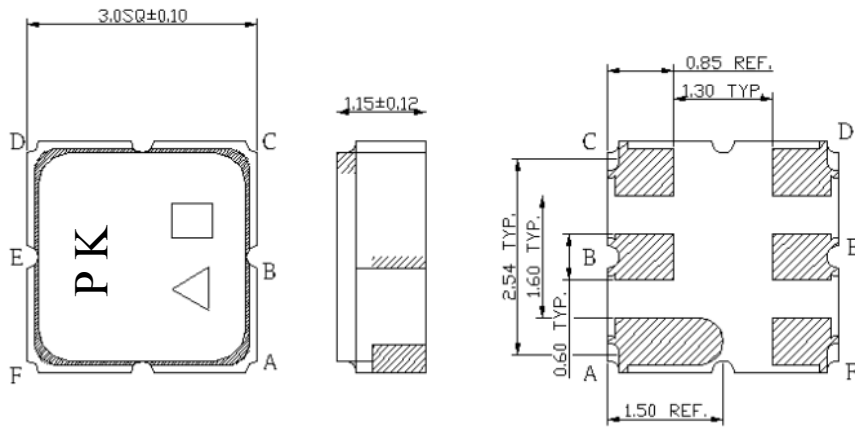
Temperature dependence of fc:  $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$

### D. EQUIVALENT CIRCUIT:

One-Port Resonator:



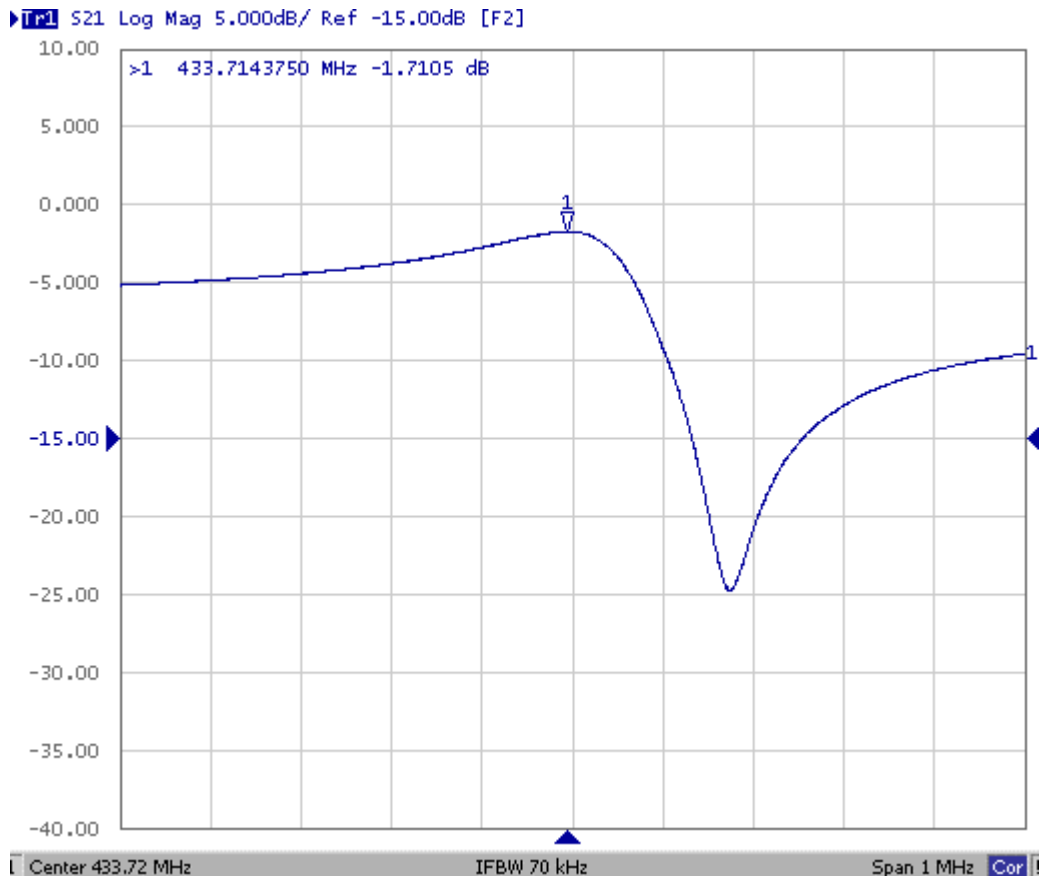
**E. OUTLINE DRAWING:**



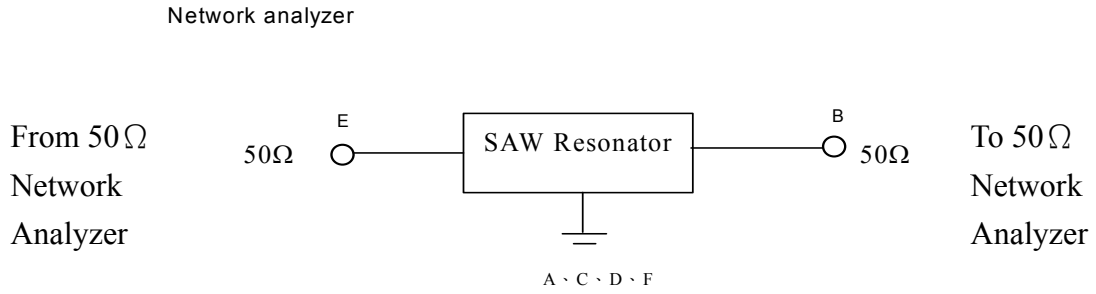
Pin B: Input or Output ; Pin E: Output or Input  
 Pin A,C,D,F:Ground  
 △ : Year Code  
 □ : Date Code  
 Unit : mm

□ Date code: Provided by planer each year  
 Year code: 8 for 2008,9 for 2009,...

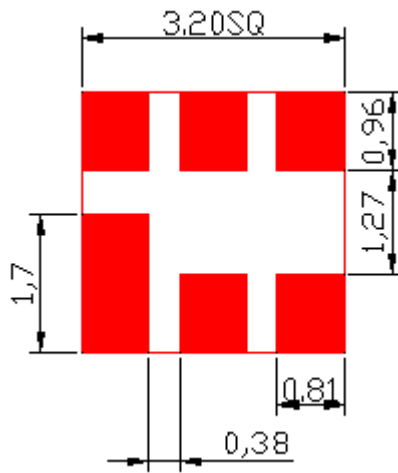
**F. FREQUENCY CHARACTERISTICS:**



G. TEST CIRCUIT:

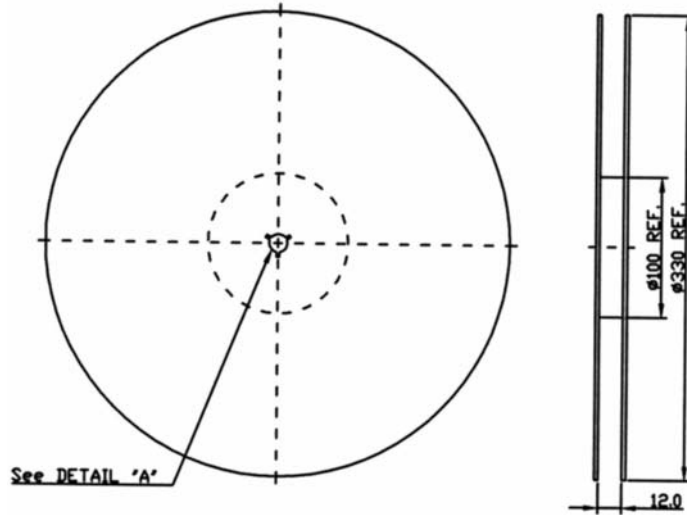


H. PCB FOOTPRINT:

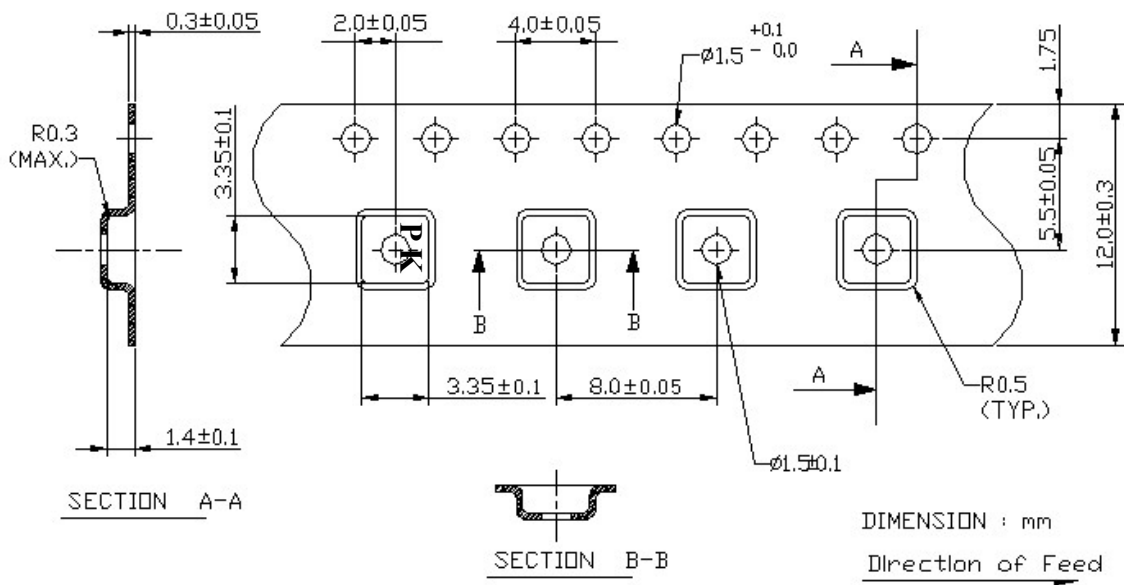


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



**J. RECOMMENDED REFLOW PROFILE:**

