



# 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 Name: SAW Resonator 868.35 MHz SMD 3X3 mm

TST Parts No.: TC0331B

Customer Parts 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 868.35MHz

MODEL NO.: TC0331B

REV. NO.:2.0

### A. FEATURES:

- 1-Port Resonator.

### B. MAXIMUM RATING:

1. Input Power Level: 0 dBm
2. DC voltage: 3 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:

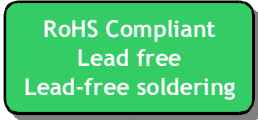
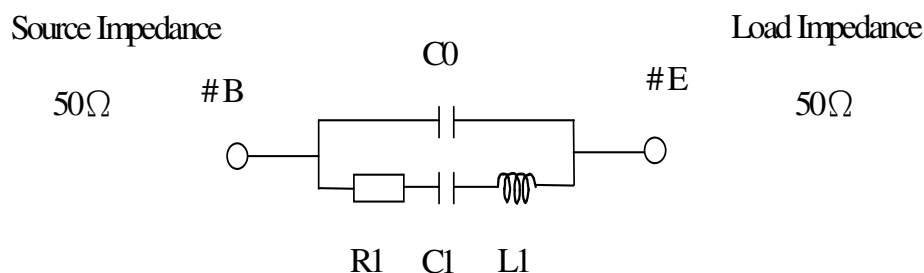
Reference Temperature  $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fc</b>	<b>MHz</b>	868.275	868.350	868.425
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.5	2.5
Unload quality factor <b>Q<sub>u</sub></b>		-	9500	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.02	-
Motional inductance <b>L1</b>	<b>μH</b>	-	37.2	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	21.3	-
Parallel capacitance <b>C<sub>0</sub></b>	<b>pF</b>	-	2.26	-
Frequency Temperature coefficient (C <sub>f</sub> )	<b>ppm/c*2</b>	-	0.032	-
Turnover To	<b>deg.C</b>	-	25	-
Package size		SMD 3x3x1.1 mm		

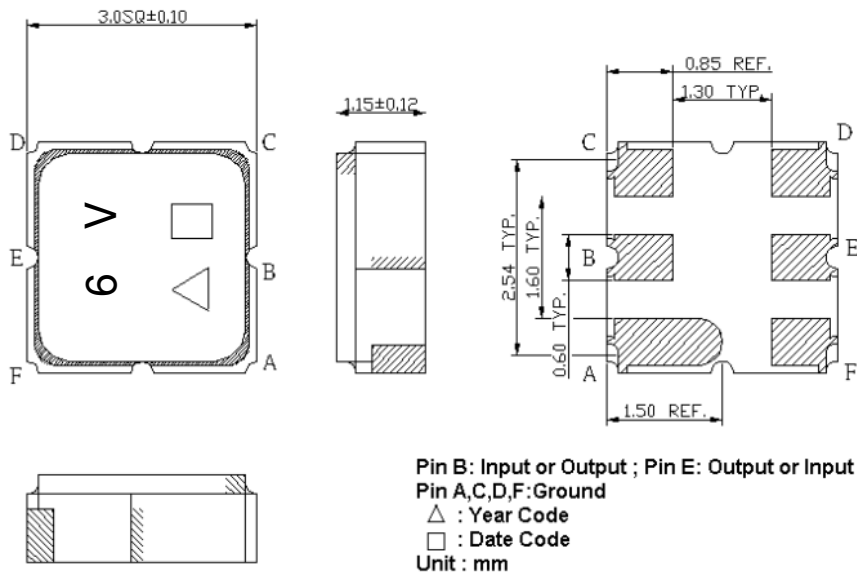
Temperature dependence of fc:  $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$

### D. EQUIVALENT CIRCUIT:

One-Port Resonator:



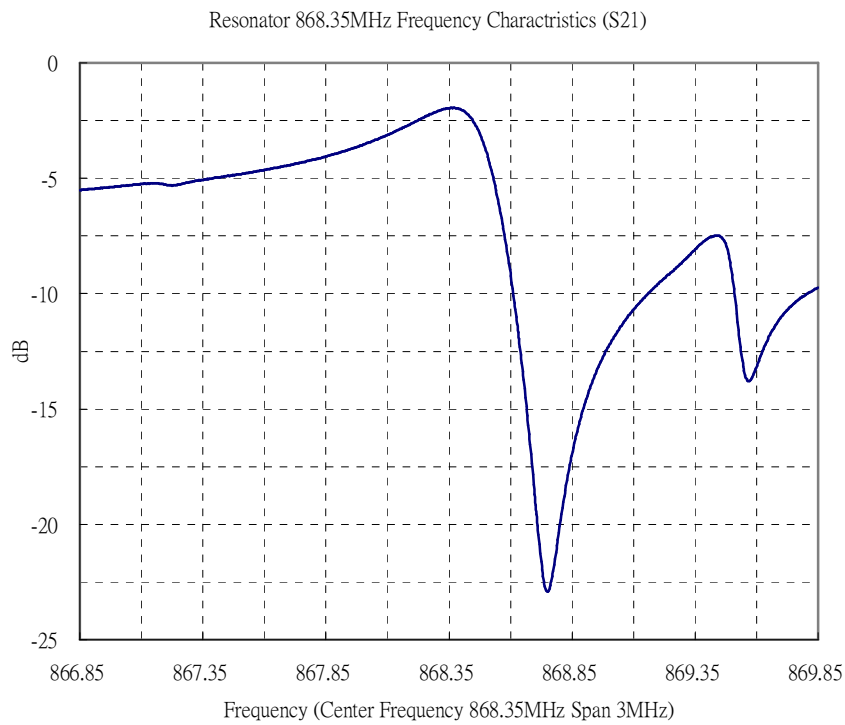
**E. OUTLINE DRAWING:**



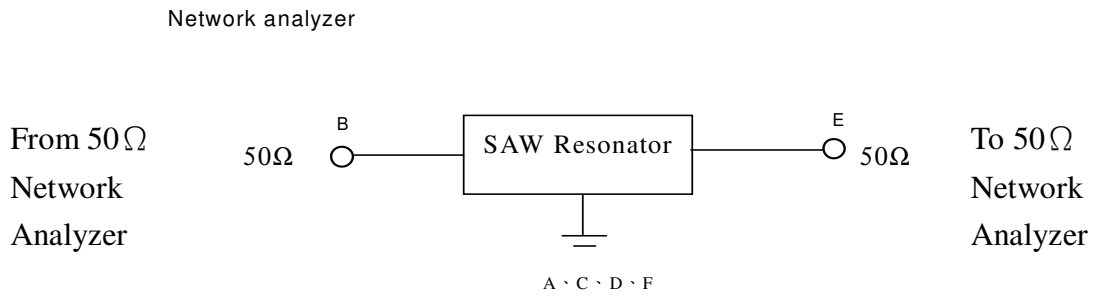
Date code: Provided by planer each year

Year code: 7 for 2007, 8 for 2008, ...

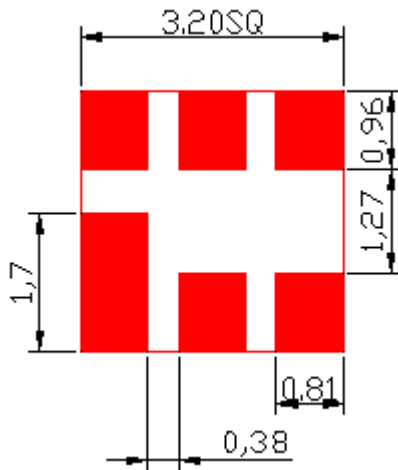
**F. FREQUENCY CHARACTERISTICS:**



### G. TEST CIRCUIT:

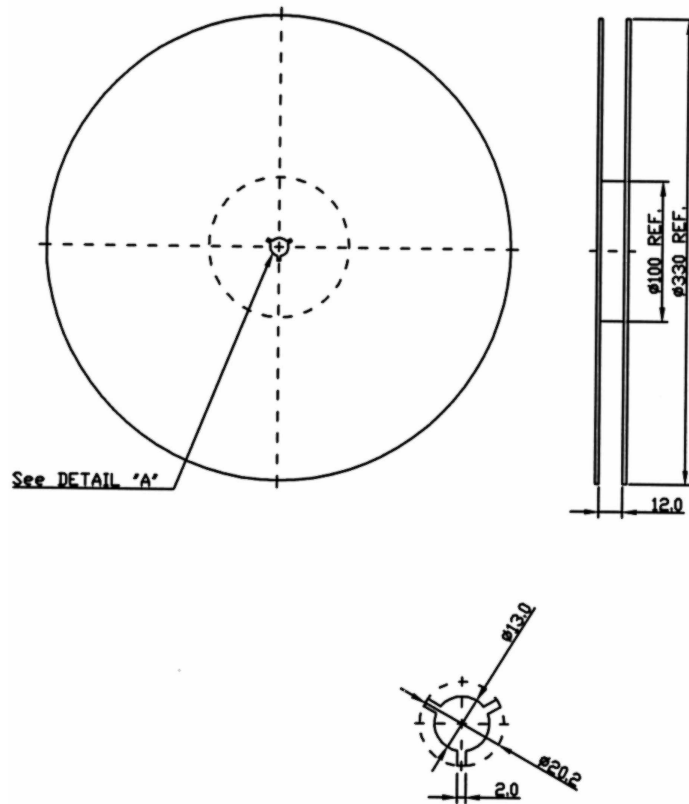


### H. LAND PATTERN:

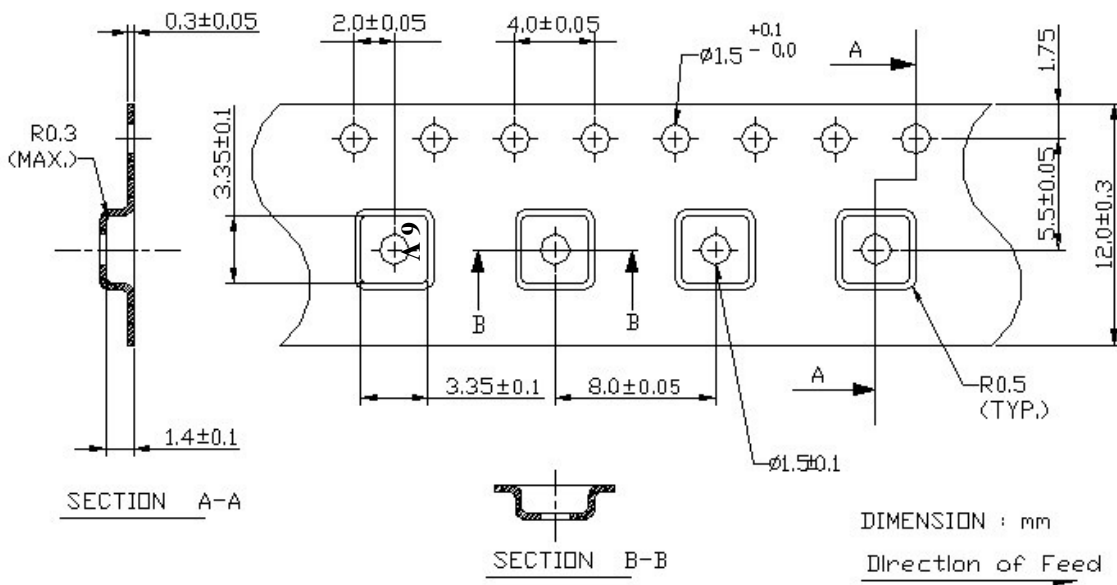


I. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



**H. RECOMMENDED REFLOW PROFILE:**

