



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Approval Sheet For Product Specification

Issued Date:

Product Name: SAW Resonator 433.92 MHz SMD 3X3 mm

TST Parts No.: TC0219A

Customer Parts No.: \_\_\_\_\_

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: Asin Lin

Approval by: Francis Chen

Date: 2006/1/11



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## SAW Resonator 433.92 MHz

MODEL NO.: TC0219A

REV. NO.:5

### A. FEATURES:

- 1-Port Resonator.

RoHS Compliant  
Lead free  
Lead-free soldering

### 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:

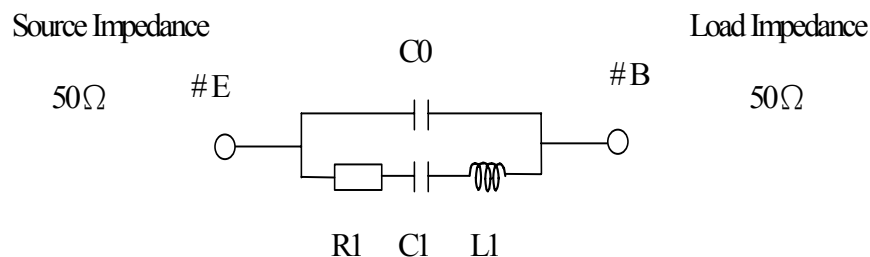
Reference Temperature  $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fc</b>	<b>MHz</b>	433.845	433.920	433.995
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.58	2.2
Unload quality factor <b>Q<sub>U</sub></b>		6000	11000	-
Ageing of fc	<b>ppm/yr</b>	-	-	$\pm 10$
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.5	-
Motional inductance <b>L1</b>	<b><math>\mu\text{H}</math></b>	-	89.79	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	22.25	-
Parallel capacitance <b>C<sub>0</sub></b>	<b>pF</b>	-	2.95	-
Frequency Temperature coefficient ( $\text{TC}_f$ )	<b>ppm/c*2</b>	-	0.032	-
Turnover $T_0$	<b>deg.C</b>	10	25	40
Package size		SMD 3X3X1.1 mm		

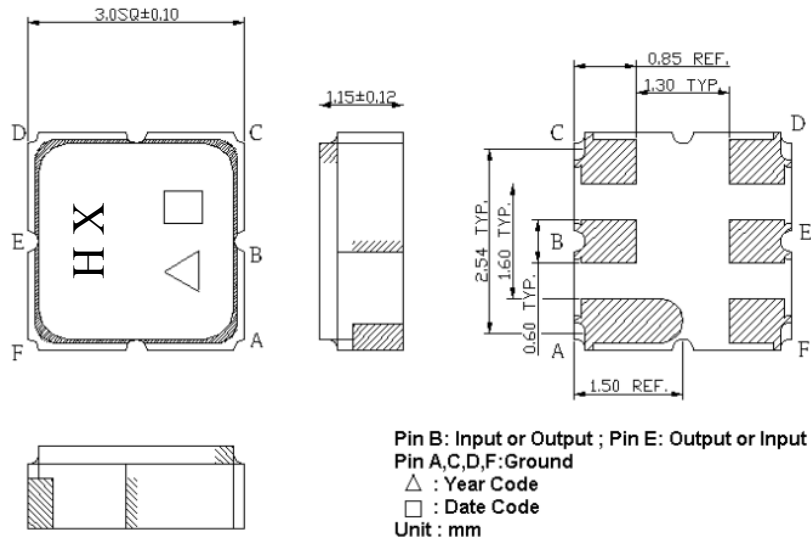
Temperature dependence of fc:  $f_c(T_A)=f_c(T_0)(1+\text{TC}_f(T_A-T_0)^2)$

### D. EQUIVALENT CIRCUIT:

One-Port Resonator:

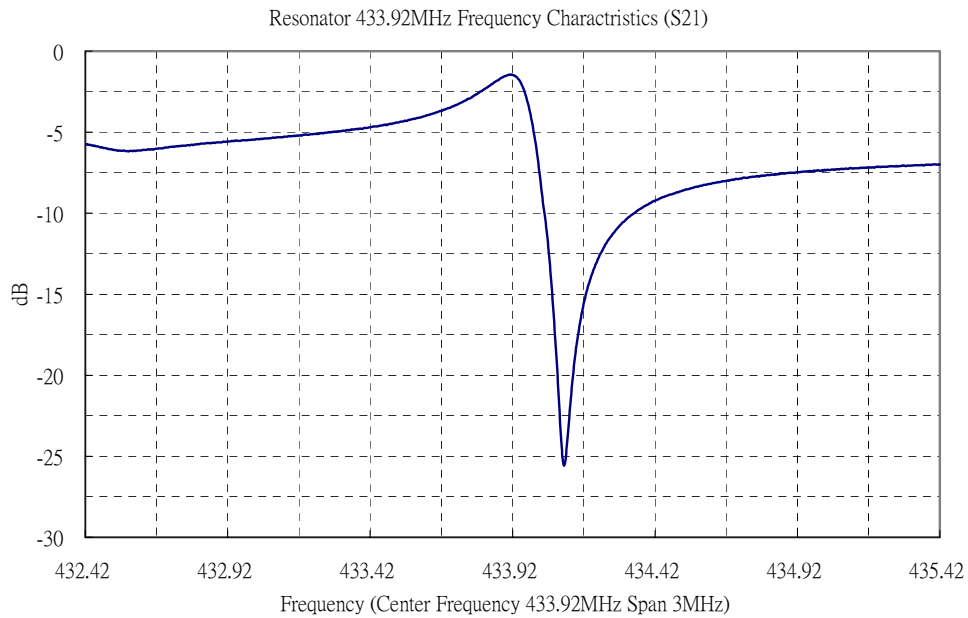


**E. OUTLINE DRAWING:**

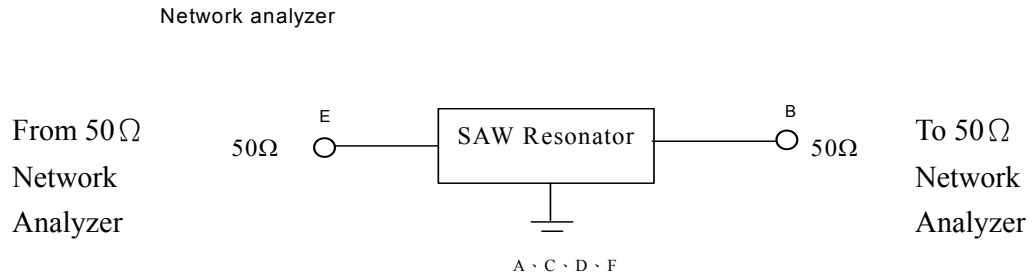


□ Date code: Provided by planer each year  
 Year code: 5 for 2005,6 for 2006,...

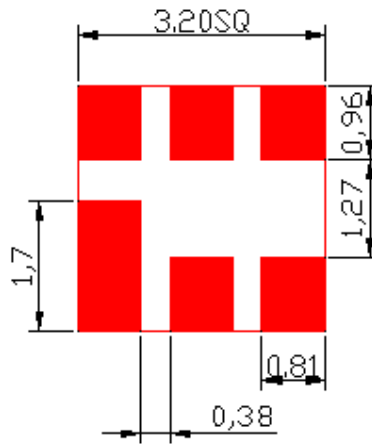
**F. FREQUENCY CHARACTERISTICS:**



## G. TEST CIRCUIT:

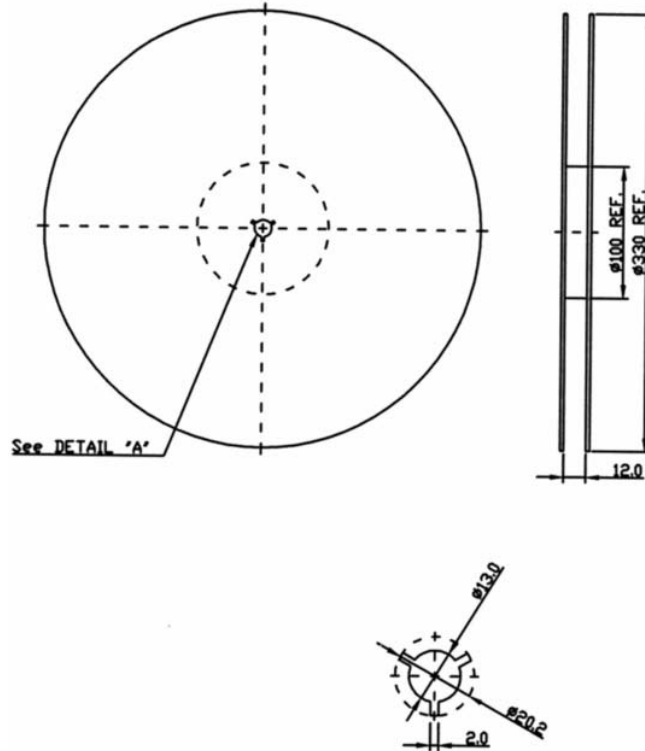


## H. PCB FOOTPRINT:



## G. PACKING:

### 1. REEL DIMENSION



### 2. TAPE DIMENSION

