



# 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 433.385 MHz SMD 5X5 mm

TST Parts No.: TC0241A

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

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

Checked by: Vincent Liu

Approval by: Francis Chen

Date: 2003/12/03



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## SAW Resonator 433.385 MHz

MODEL NO.: TC0241A

REV. NO.:1

### A. FEATURES:

1. 1-Port Resonator.

### 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

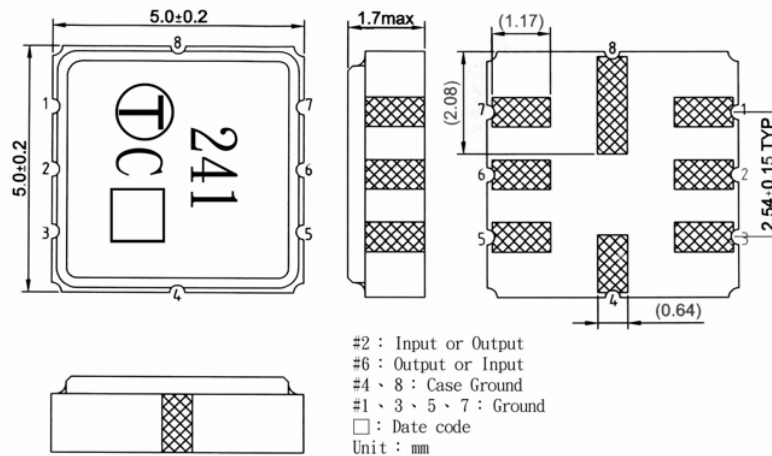
### C. ELECTRICAL CHARACTERISTICS:

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

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fc</b>	<b>MHz</b>	433.345	433.385	433.425
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.0	2.0
Unload quality factor <b>Q<sub>U</sub></b>		6000	14500	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.8	-
Motional inductance <b>L1</b>	<b>μH</b>	-	73	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	13	-
Parallel capacitance <b>C<sub>o</sub></b>	<b>pF</b>	-	3.0	-
Frequency Temperature coefficient (TC <sub>f</sub> )	<b>ppm/c*2</b>	-	0.032	-
Turnover To	<b>deg.C</b>	10	25	40
Package size	SMD 5X5X1.4mm			

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

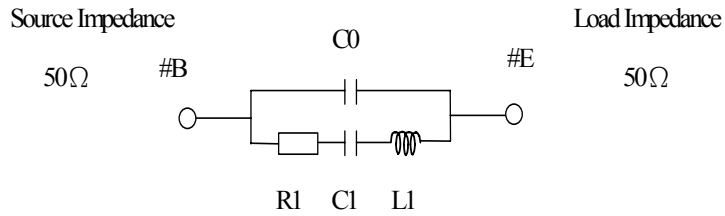
### D. OUTLINE DRAWING:



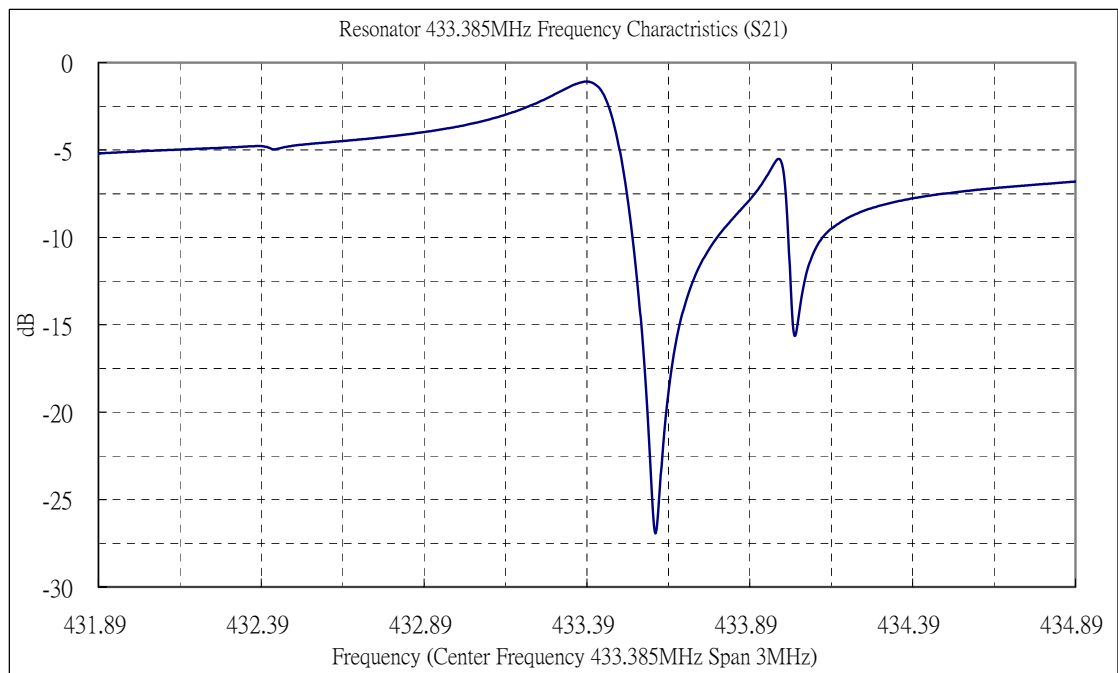
RoHS Compliant  
Lead free  
Lead-free soldering

**E. EQUIVALENT CIRCUIT:**

One-Port Resonator:



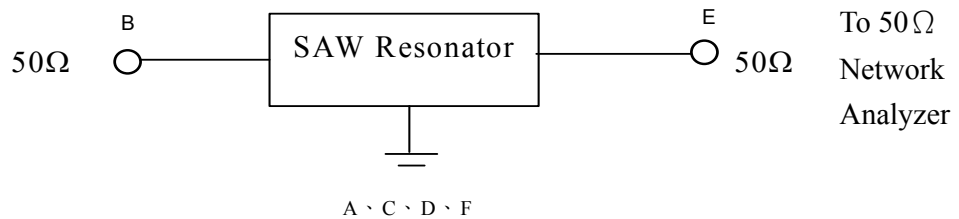
**F. FREQUENCY CHARACTERISTICS:**



**G. TEST CIRCUIT:**

Network analyzer

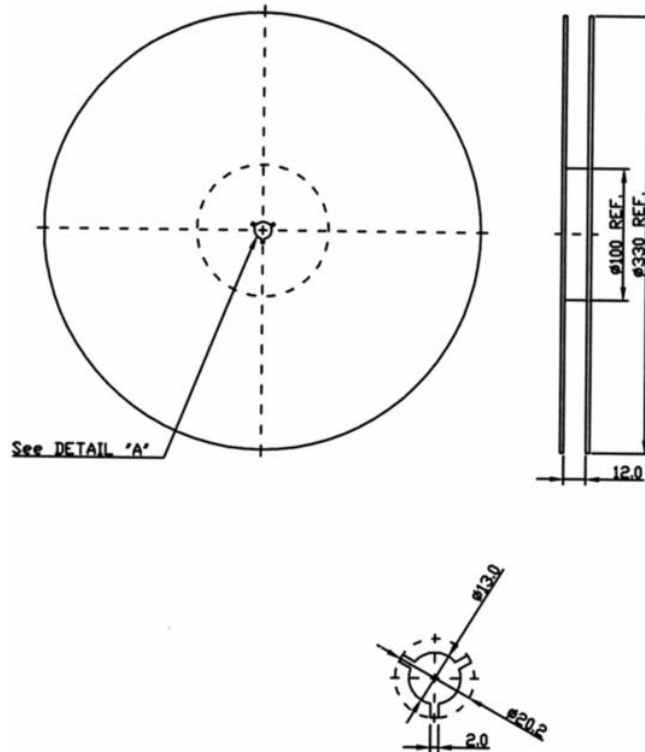
From 50Ω  
Network  
Analyzer



To 50Ω  
Network  
Analyzer

## H. PACKING:

### 1. REEL DIMENSION



### 2. TAPE DIMENSION

