

# SAW Resonator 916.5 MHz

MODEL NO.: TC0391A

REV. NO.:1

## A. FEATURES:

- 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:

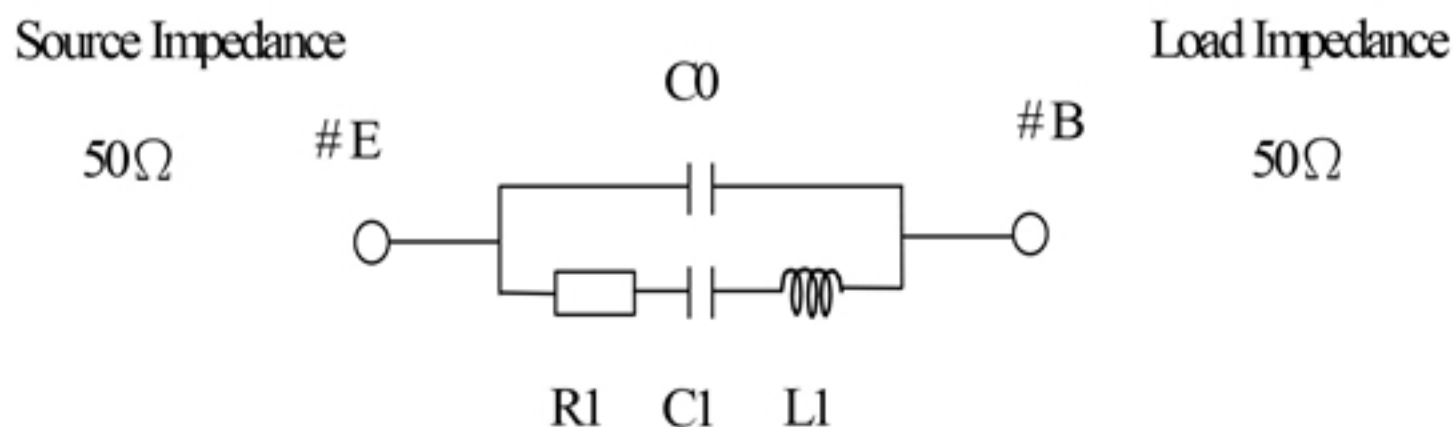
Reference Temperature  $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fc</b>	<b>MHz</b>	916.425	916.500	916.575
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.4	2.2
Unload quality factor <b>Q<sub>U</sub></b>		-	9300	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.08	-
Motional inductance <b>L1</b>	<b>μH</b>	-	27.8	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	17.2	-
Parallel capacitance <b>C<sub>0</sub></b>	<b>pF</b>	-	2.3	-
Frequency Temperature coefficient ( <b>TC<sub>f</sub></b> )	<b>ppm/c*2</b>	-	0.032	-
Turnover <b>T<sub>0</sub></b>	<b>deg.C</b>	10	25	40
Package size		SMD 3X3X1.1 mm		

Temperature dependence of fc:  $f_c(T_A)=f_c(T_0)(1+TC_f(T_A-T_0)^2)$

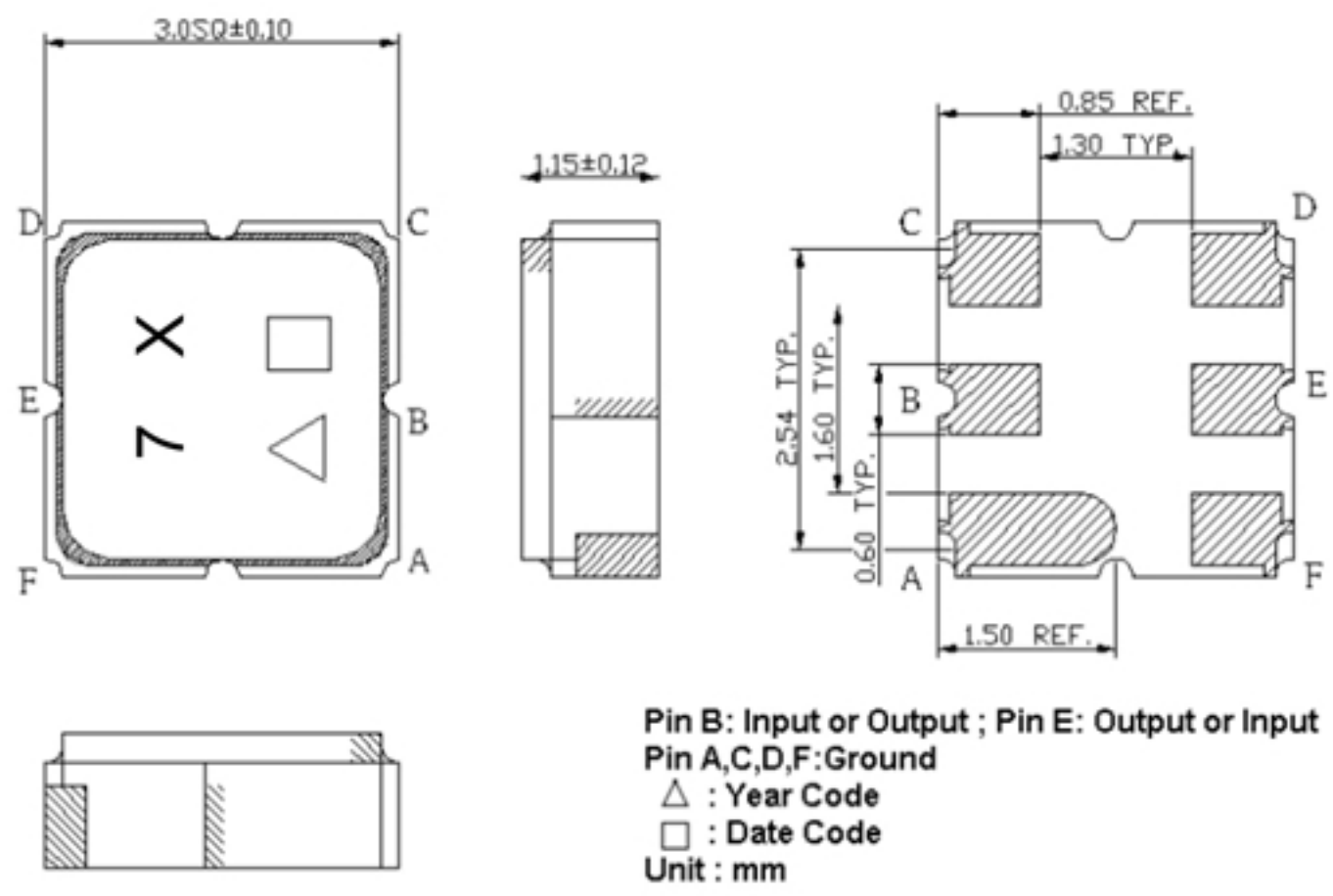
## D. EQUIVALENT CIRCUIT:

One-Port Resonator:



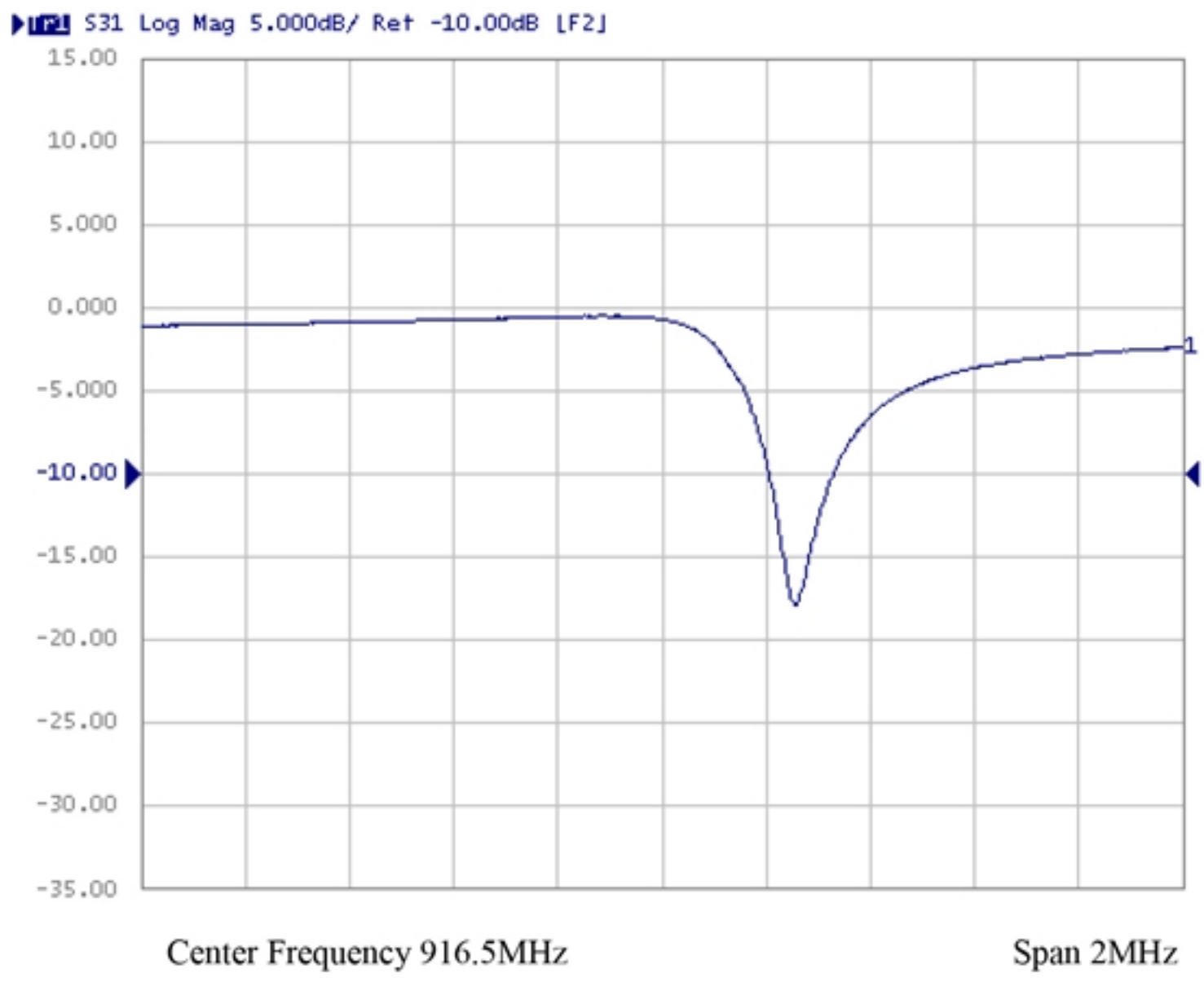
RoHS Compliant  
Lead free  
Lead-free soldering

E.OUTLINE DRAWING:



Date code: Provided by planer each year  
 Year code: 7 for 2007,8 for 2008,...

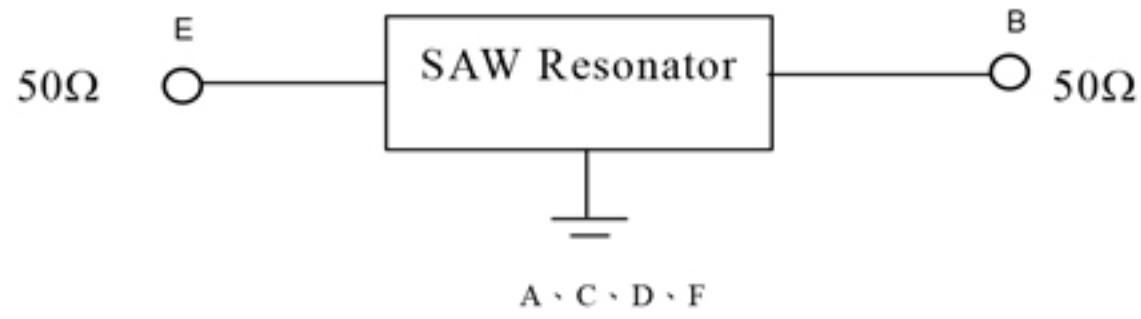
F.FREQUENCY CHARACTERISTICS:



## G. TEST CIRCUIT:

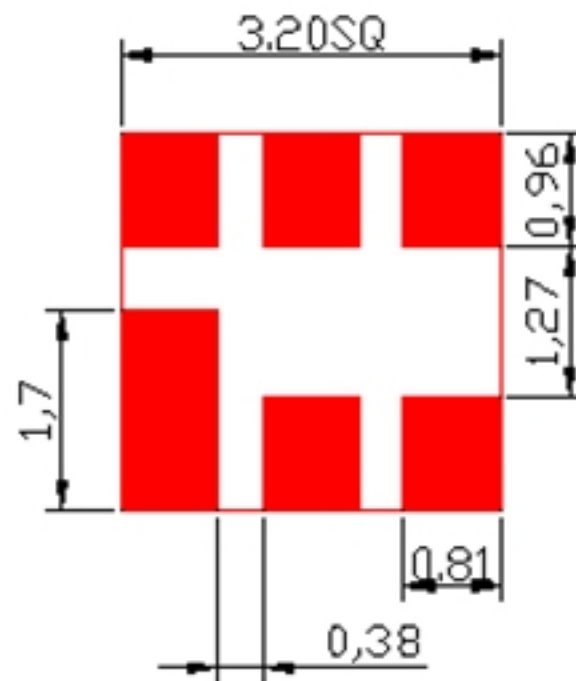
Network analyzer

From  $50\Omega$   
Network  
Analyzer



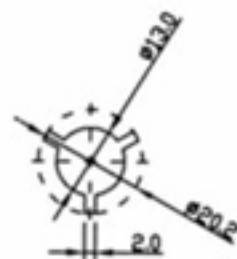
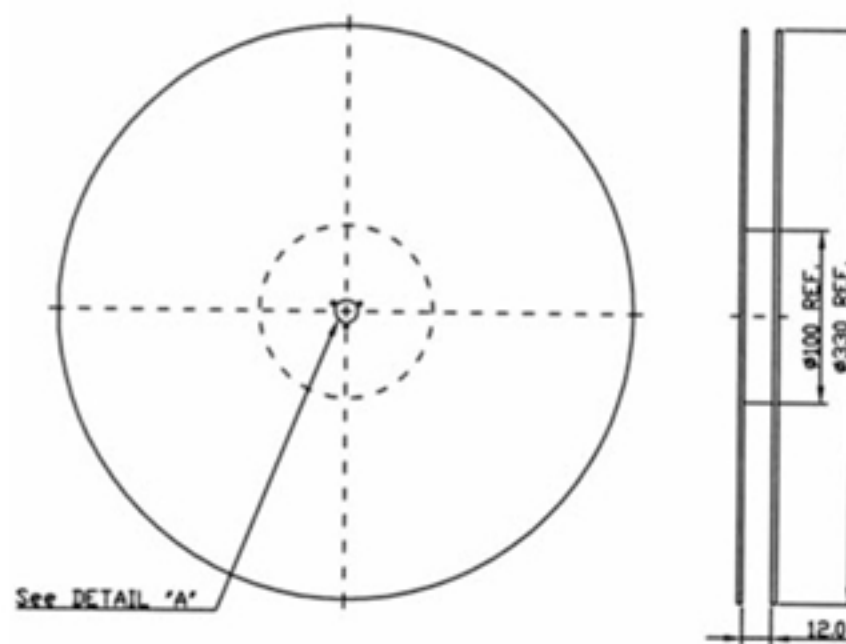
To  $50\Omega$   
Network  
Analyzer

## H. PCB Foot Print:

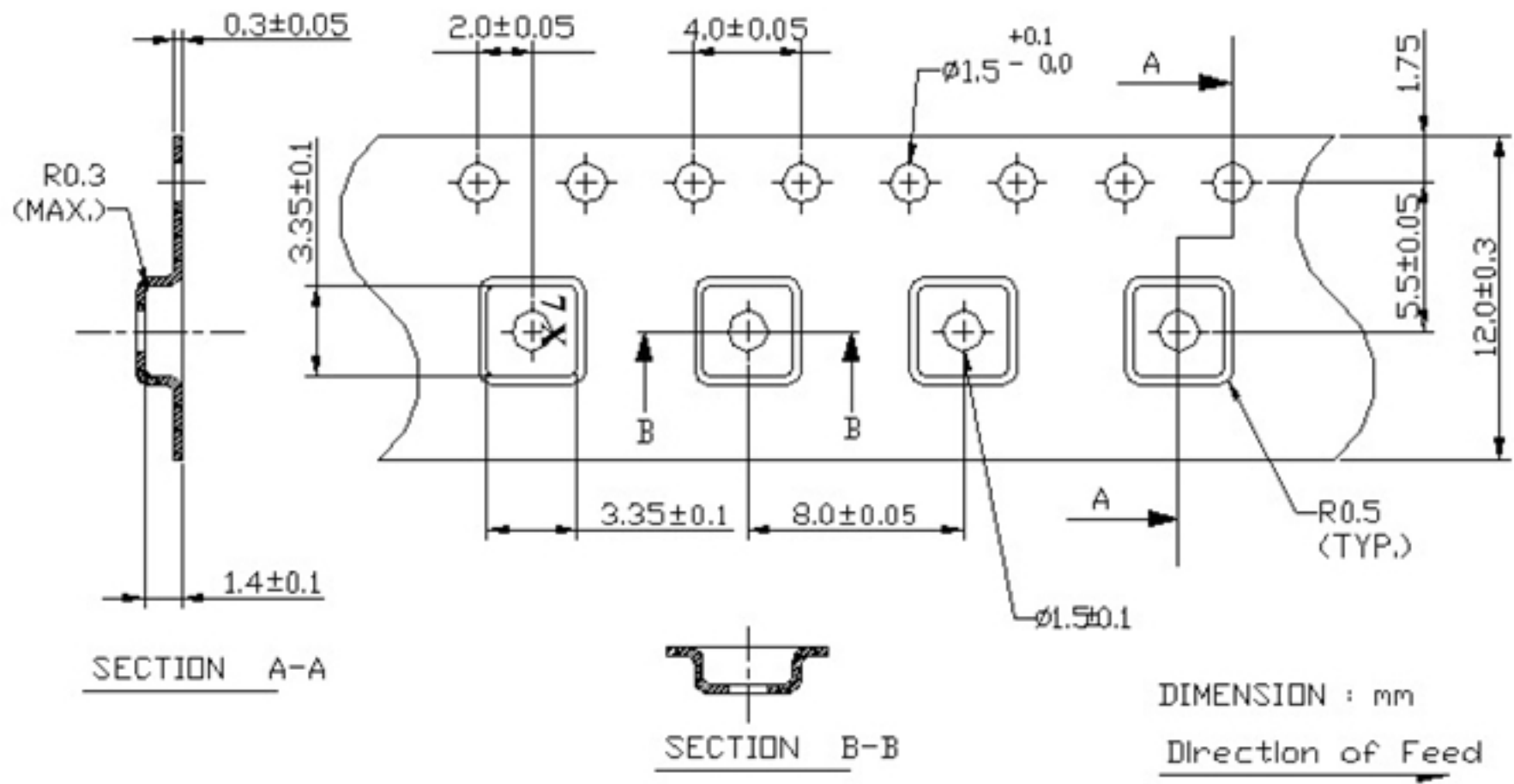


## I. PACKING:

### 1. REEL DIMENSION



## 2.TAPE DIMENSION



## H.RECOMMENDED REFLOW PROFILE:

