

# SAW Resonator 915 MHz

MODEL NO.: TC0278A

REV. NO.:1

## A. FEATURES:

1. 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

## C. ELECTRICAL CHARACTERISTICS:

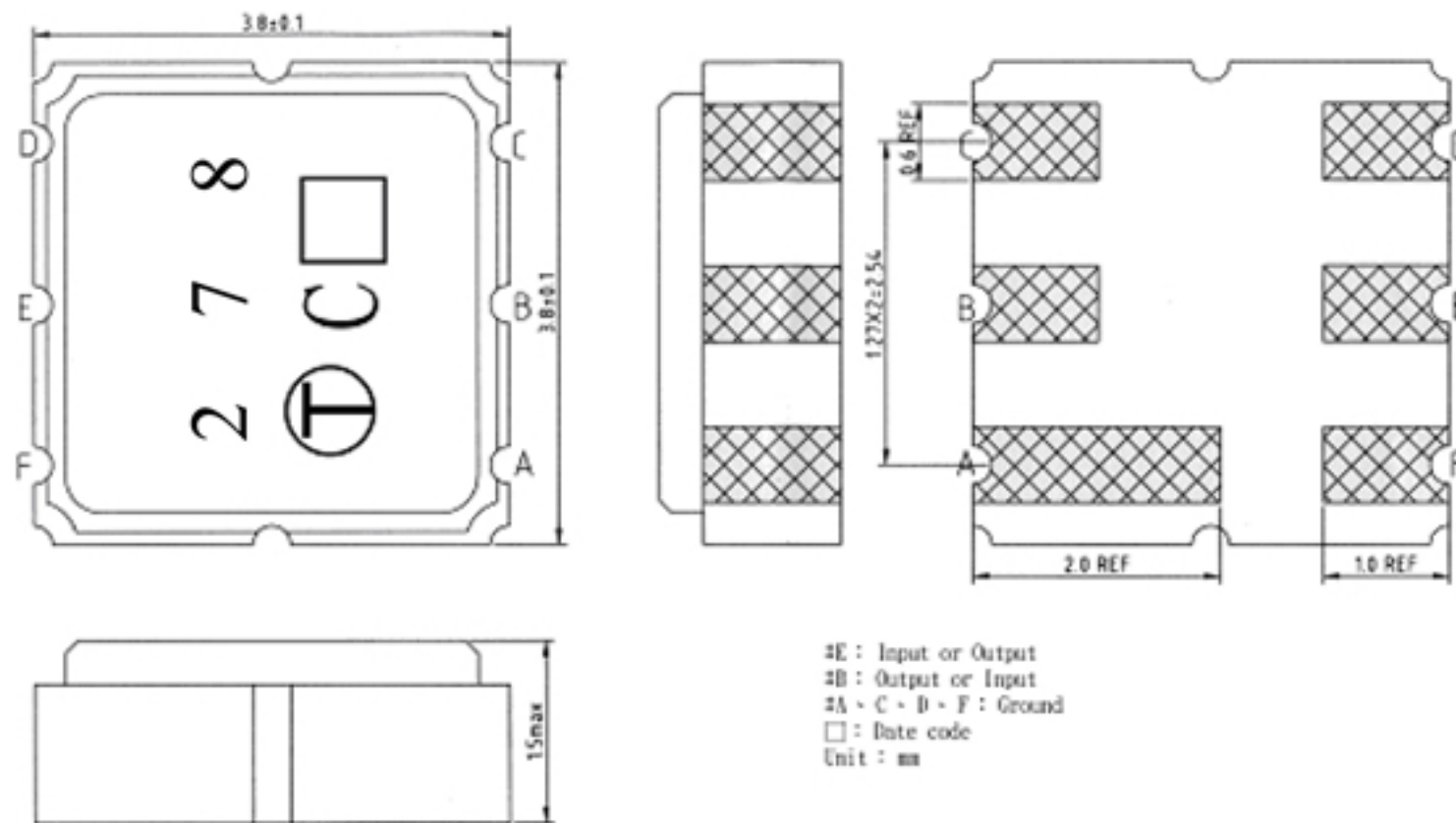
Reference Temperature  $T_A=25^\circ\text{C}$

RoHS Compliant  
Lead free  
Lead-free soldering

Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>F<sub>c</sub></b>	<b>MHz</b>	914.9	915	915.1
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.1	2.0
Unload quality factor <b>Q<sub>U</sub></b>		5000	6200	-
Ageing of fc	<b>ppm/yr</b>	-	-	±10
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.39	-
Motional inductance <b>L1</b>	<b>μH</b>	-	21.8	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	20.3	-
Parallel capacitance <b>C<sub>o</sub></b>	<b>pF</b>	-	2.6	-
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 3.8X3.8X1.4mm			

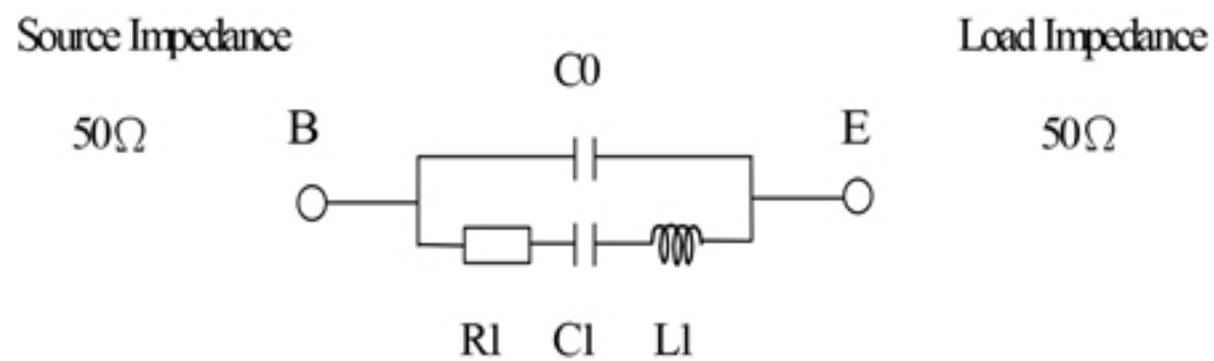
Temperature dependence of fc:  $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$

### D. OUTLINE DRAWING:

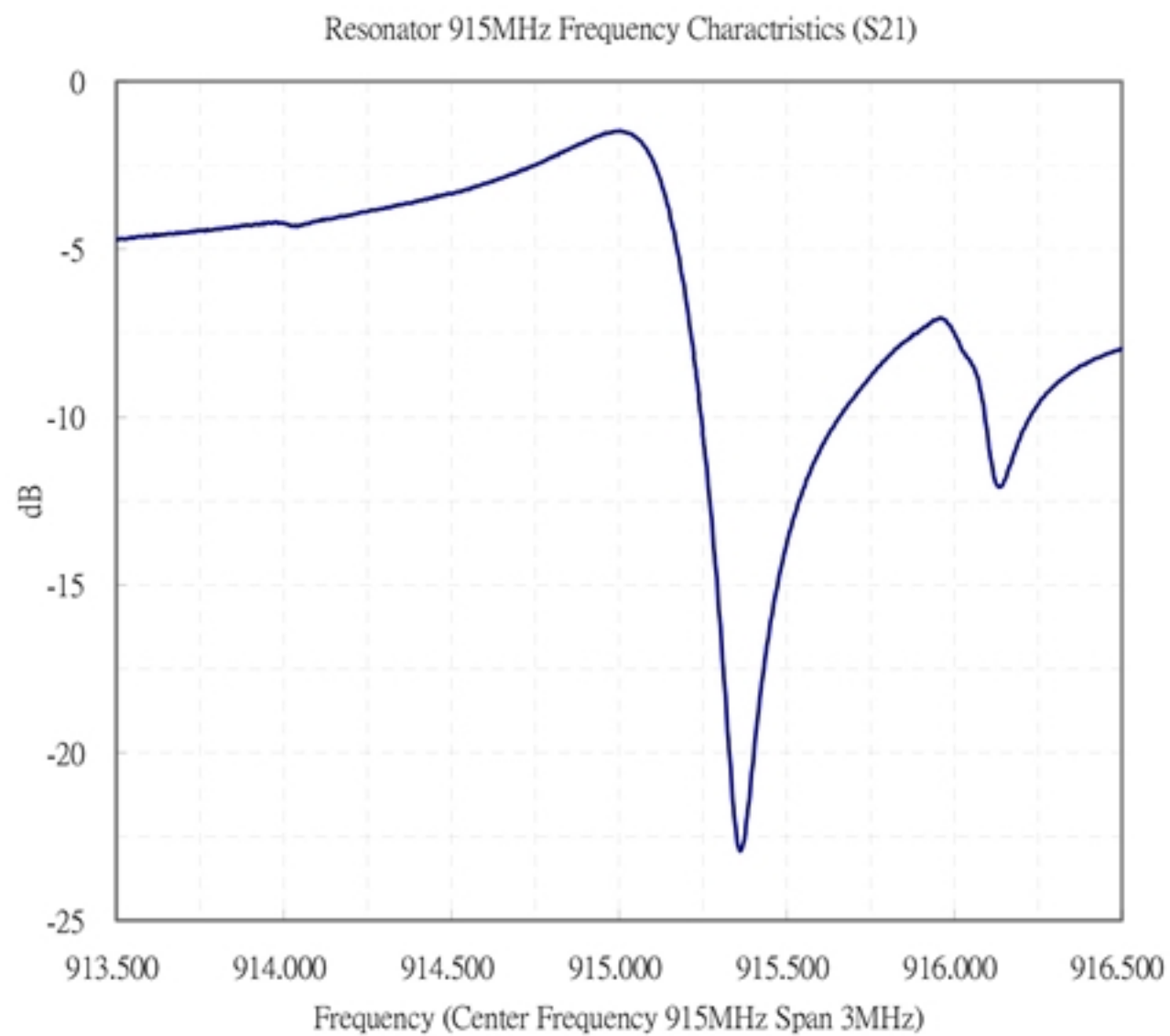


### E. EQUIVALENT CIRCUIT:

One-Port Resonator:



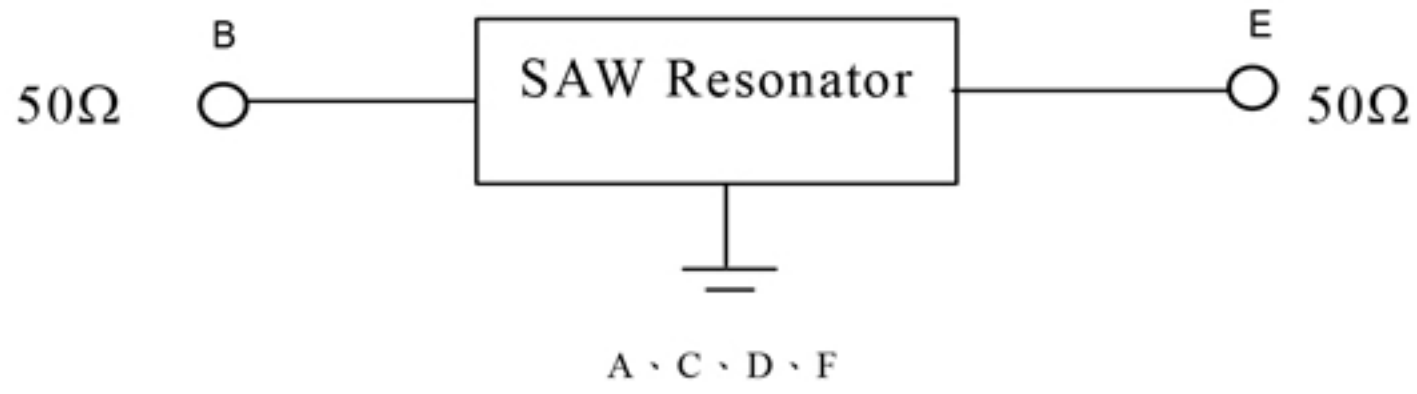
### F. FREQUENCY CHARACTERISTICS:



## G. TEST CIRCUIT:

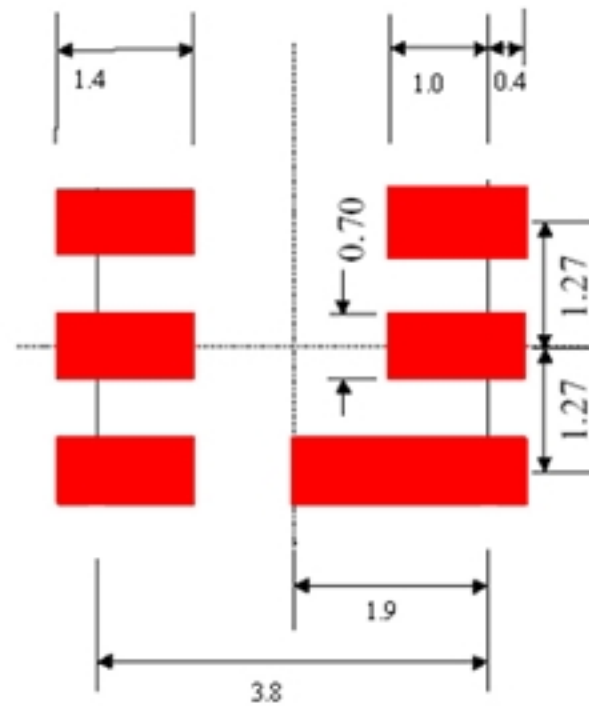
Network analyzer

From  $50\ \Omega$   
Network  
Analyzer



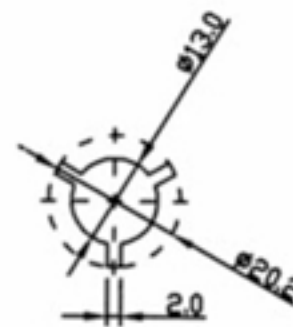
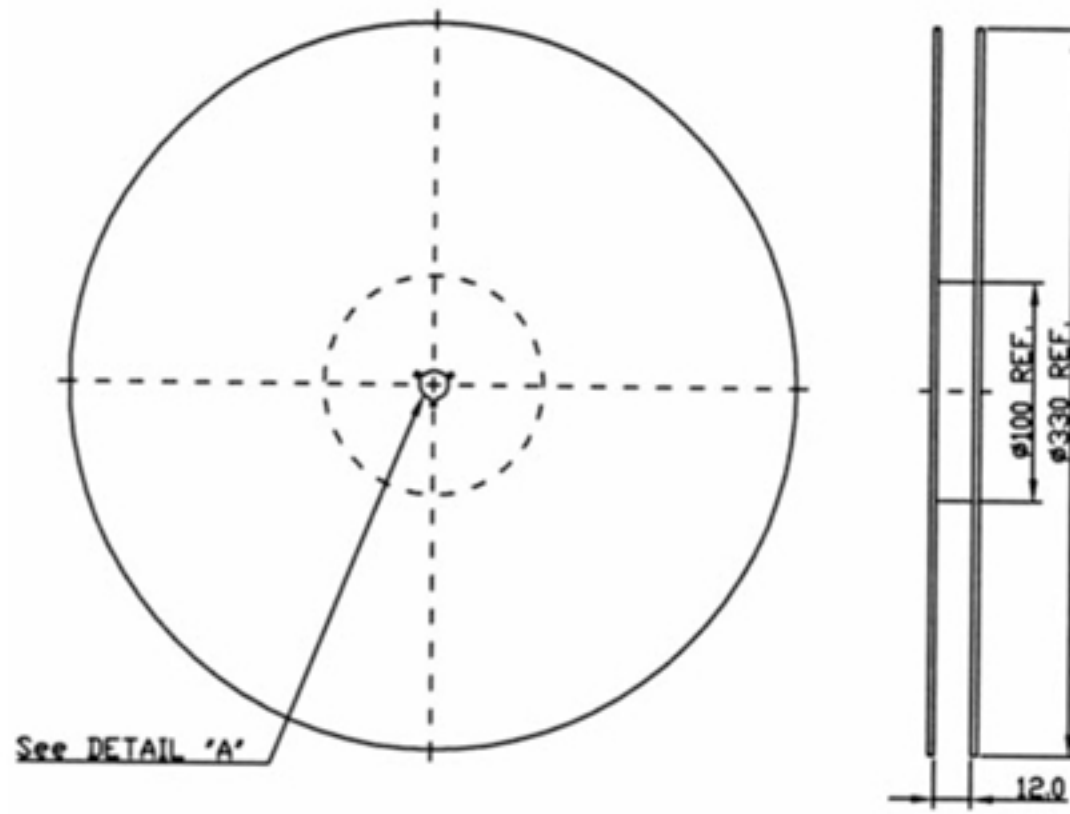
To  $50\ \Omega$   
Network  
Analyzer

## H. PCB FOOTPRINT



# I. PACKING:

## 1. REEL DIMENSION



## 2. TAPE DIMENSION

