



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Approval Sheet For Product Specification

Issued Date:

Product Name: SAW Resonator 649.046 MHz SMD 3X3 mm

TST Parts No.: TC0270A

Customer Parts No.: _____

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Asin Lin

Approval by: _____ Francis Chen

Date: _____ 2004/12/01



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SAW Resonator 649.046 MHz

MODEL NO.: TC0270A

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

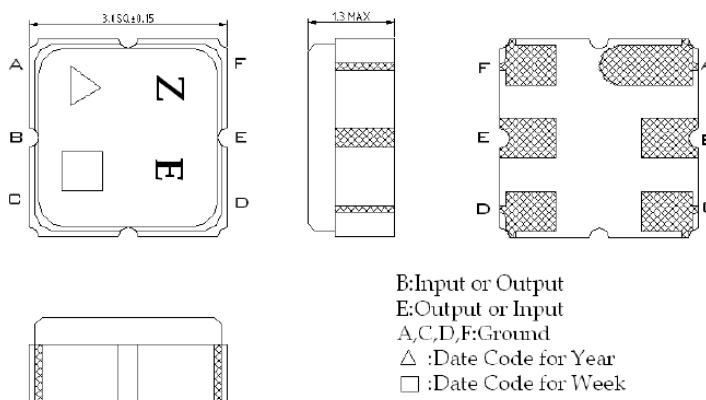
C. ELECTRICAL CHARACTERISTICS:

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

Characteristic	Units	Minimum	Typical	Maximum
Center frequency Fc	MHz	649.006	649.046	649.076
Insertion Loss IL	dB	-	1.3	2.0
Unload quality factor Q_U		-	10000	-
Ageing of fc	ppm/yr	-	-	±10
Motional capacitance C1	fF	-	1.55	-
Motional inductance L1	μH	-	38.86	-
Motional resistance R1	Ohm	-	15.4	-
Parallel capacitance Co	pF	-	2.87	-
Frequency Temperature coefficient (TC _f)	ppm/c*2	-	0.032	-
Turnover To	deg.C	10	25	40
Package size		SMD 3X3X1.1 mm		

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

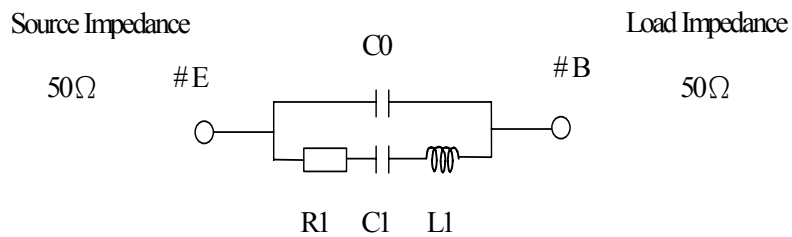
D. OUTLINE DRAWING:



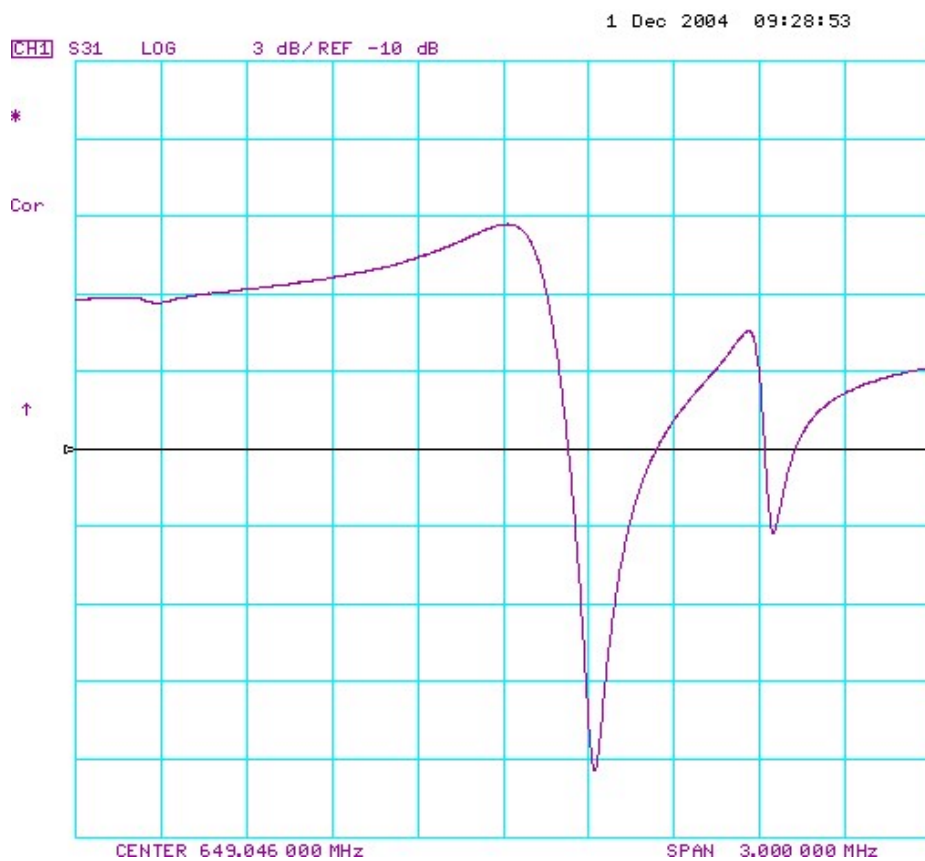
RoHS Compliant
Lead free
Lead-free soldering

E. EQUIVALENT CIRCUIT:

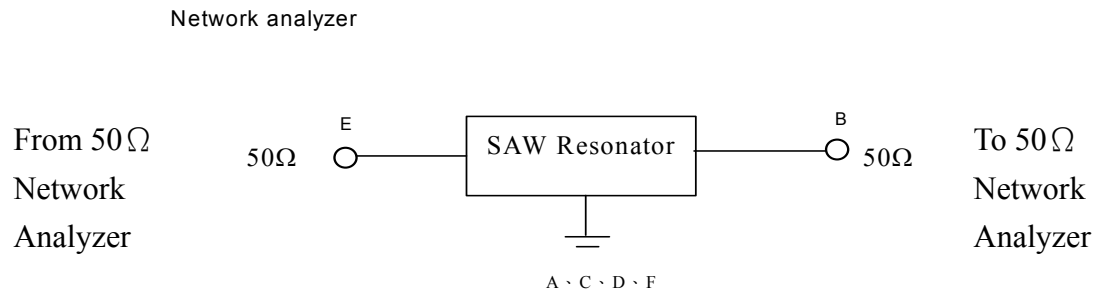
One-Port Resonator:



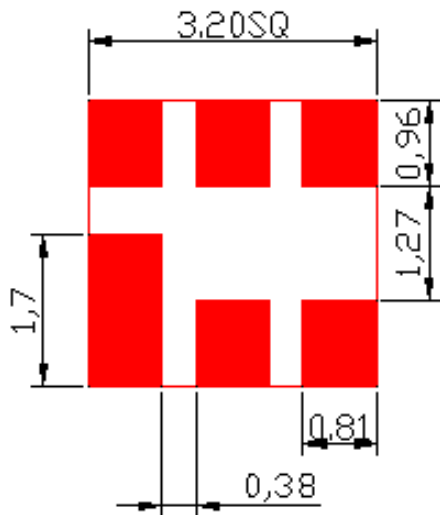
F. FREQUENCY CHARACTERISTICS:



G. TEST CIRCUIT:

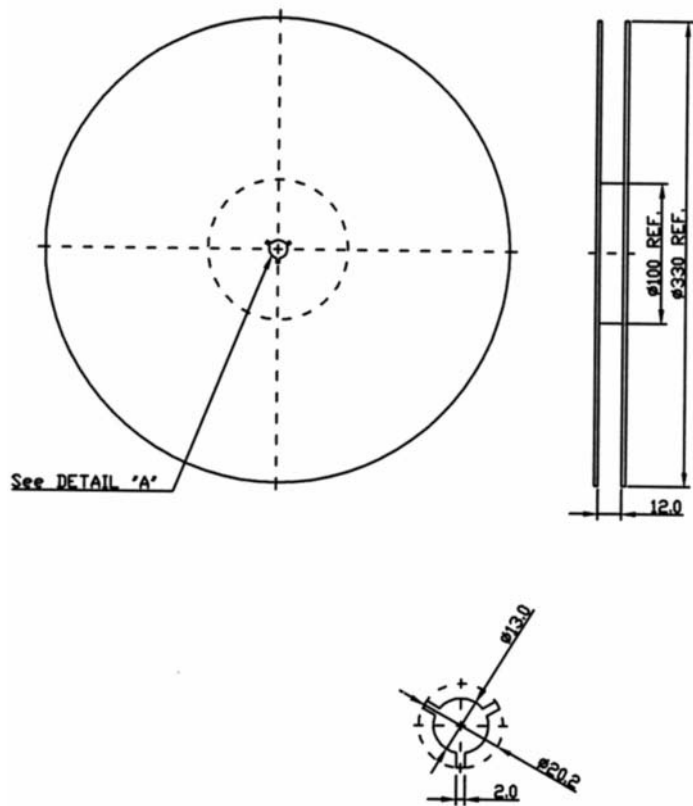


H. PCB FOOTPRINT:



I. PACKING:

1. REEL DIMENSION



2.TAPE DIMENSION

