



TAI-SAW TECHNOLOGY CO., LTD.

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

Product Description: SAW Resonator 303.825 MHz SMD 3.0×3.0mm

TST Parts No.:TC0548A

Customer Parts No.:_____

Customer signature required
Company:_____
Division:_____
Approved by :_____
Date:_____

Checked by:_____ Hongpu Lin *Hongpu Lin*

Approval by:_____ Andy Yu *Andy Yu*

Date:_____ 2019/04/25

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes



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SAW Resonator 303.825 MHz

MODEL NO.: TC0548A

REV. 2.0

A. FEATURES:

- 1-Port Resonator.

B. MAXIMUM RATING:

1. Input Power Level: 0 dBm
2. DC Voltage : 5 V
3. Operating Temperature:-40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitive Level (MSL): Level 1

RoHS Compliant
Lead free
Lead-free soldering

C. ELECTRICAL CHARACTERISTICS:

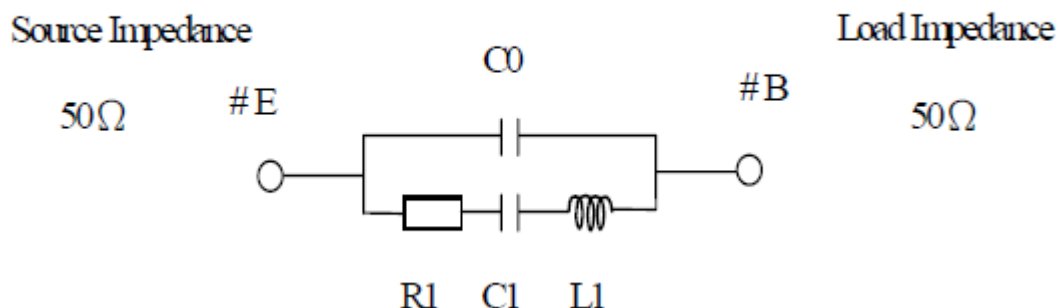
Reference Temperature $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency Fc	MHz	303.750	303.825	303.900
Insertion Loss IL	dB	-	1.3	1.8
Unload quality factor Q_U		10000	17300	-
Ageing of fc	ppm/yr	-	-	±10
Motional capacitance C1	fF	-	2.05	-
Motional inductance L1	μH	-	135.9	-
Motional resistance R1	Ohm	-	14.97	-
Parallel capacitance C₀	pF	-	3.88	-
Frequency Temperature coefficient (TC _f)	ppm/c*2	-	0.032	-
Turnover T ₀	deg.C	-5	10	25
Package size		SMD 3.0X3.0X1.4 mm		

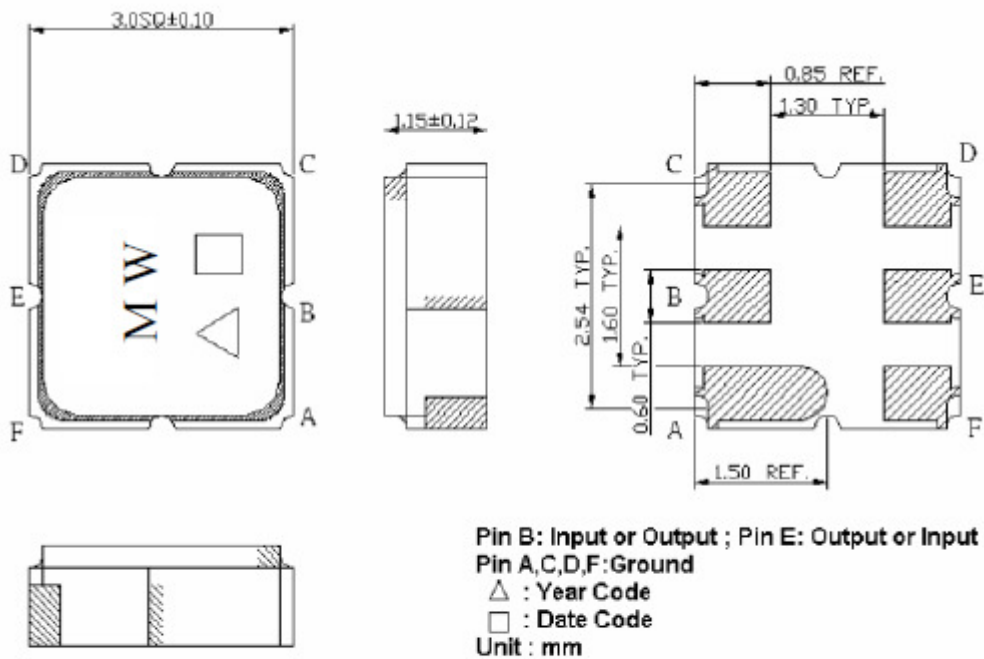
Temperature dependence of fc: $f_c(T_A)=f_c(T_0)(1-TC_f(T_A-T_0)^2)$

D. EQUIVRENT CIRCUIT:

One-Port Resonator:



E. OUTLINEDRAWING:



Date code: Provided by planer each year

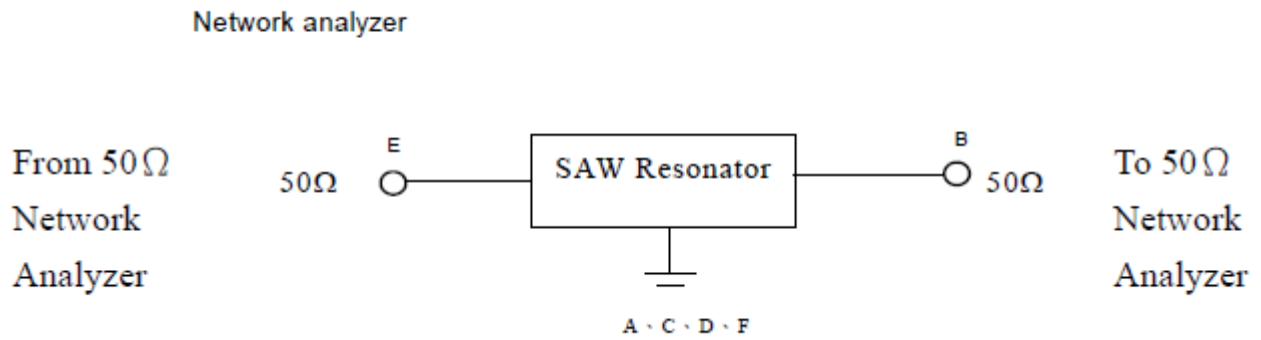
Year code: 9 for 2009, 0 for 2010, 1 for 2011...

F. FREQUENCY CHARACTERISTICS:

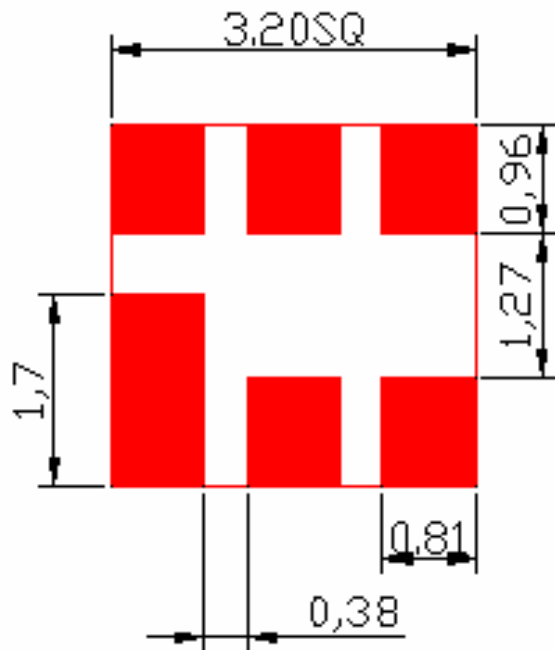


Center 303.825 MHz IFBW 70 kHz Span 1 MHz

G. TEST CIRCUIT:

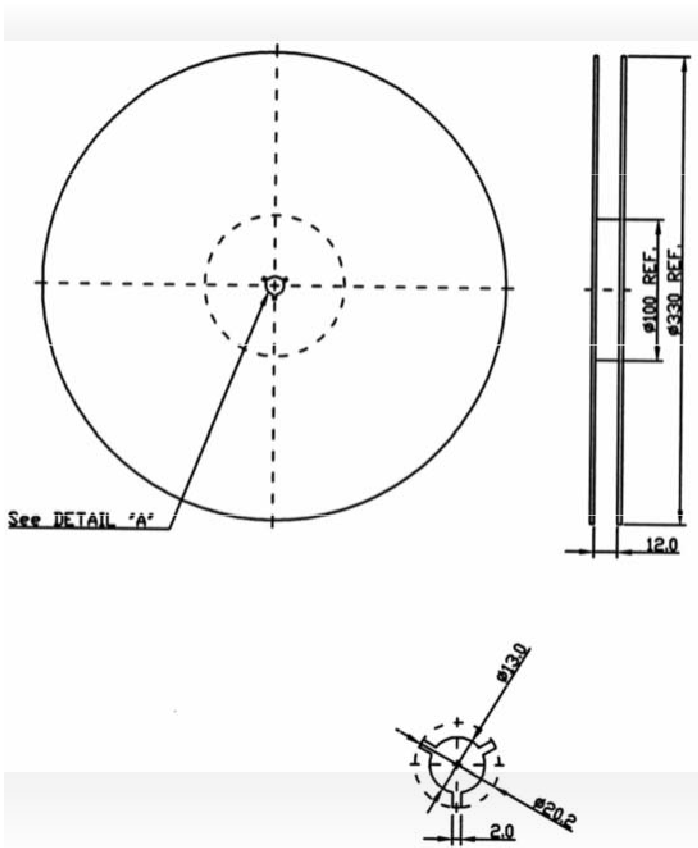


H. PCB FOOTPRINT:

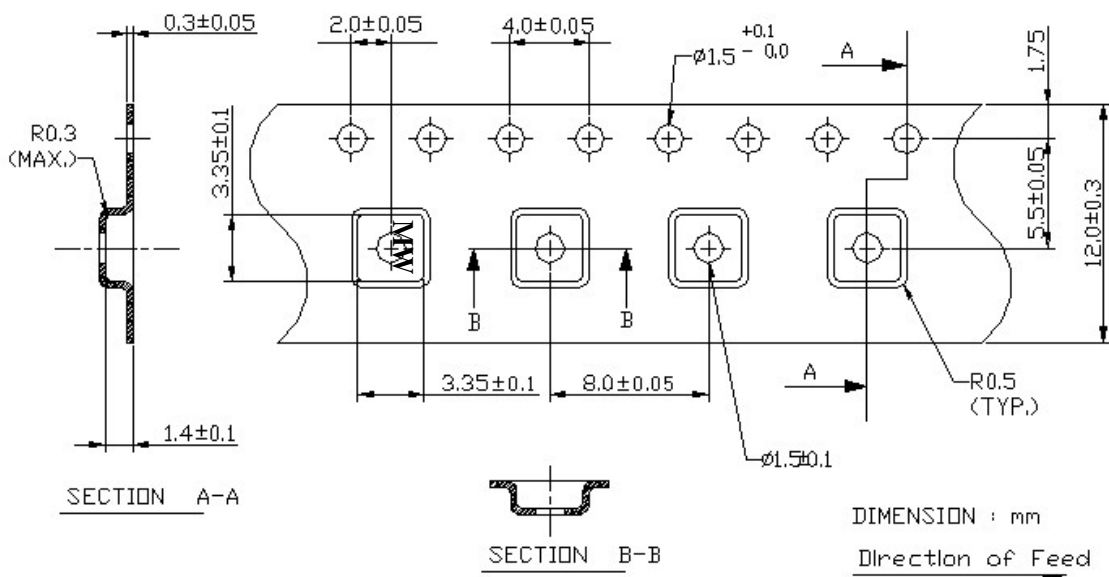


I. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



J. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

