



TAI-SAW TECHNOLOGY CO., LTD.

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

Product Name: SAW Resonator 868.35 MHz SMD 3X3 mm

TST Parts No.: TC0331A

Customer Parts No.: _____

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

Checked by: Marco Huang *Marco Huang*

Approval by: Bob Chau *Bob Chau*

Date: 2015/03/20

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 868.35MHz

MODEL NO.: TC0331A

REV. NO.:2

A. FEATURES:

- 1-Port Resonator.

B. MAXIMUM RATING:

1. Input Power Level: 10 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 $T_A=25^\circ\text{C}$

Characteristic	Units	Minimum	Typical	Maximum
Center frequency Fc	MHz	868.25	868.35	868.45
Insertion Loss IL	dB	-	1.5	2.5
Unload quality factor Q_U		-	9500	-
Ageing of fc	ppm/yr	-	-	±10
Motional capacitance C1	fF	-	1.02	-
Motional inductance L1	μH	-	37.2	-
Motional resistance R1	Ohm	-	21.3	-
Parallel capacitance C₀	pF	-	2.26	-
Frequency Temperature coefficient (TC _f)	ppm/°C²	-	0.032	-
Turnover To	deg.C	-	25	-
Package size		SMD 3x3x1.1 mm		

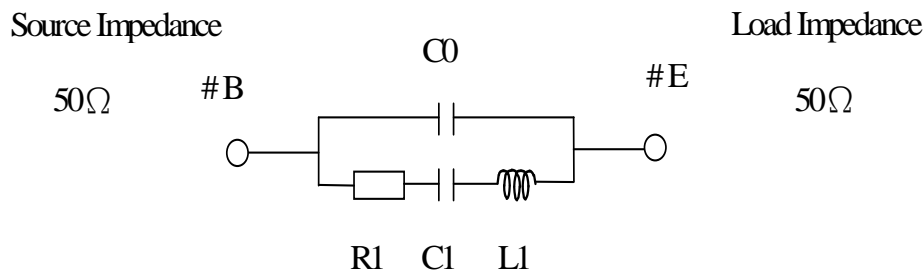
RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

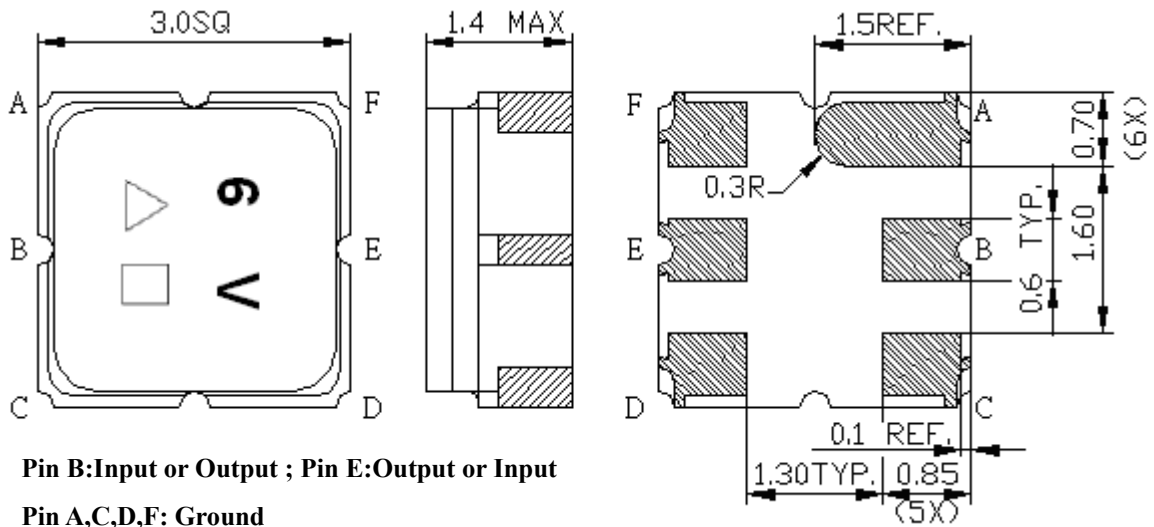
Temperature dependence of fc: $fc(T_A)=fc(T_O)(1+TC_f(T_A-T_O)^2)$

D. EQUIVALENT CIRCUIT:

One-Port Resonator:



E. OUTLINE DRAWING:



Pin B: Input or Output ; Pin E: Output or Input

Pin A,C,D,F: Ground

△: Year Code

□: Data Code

Unit: mm

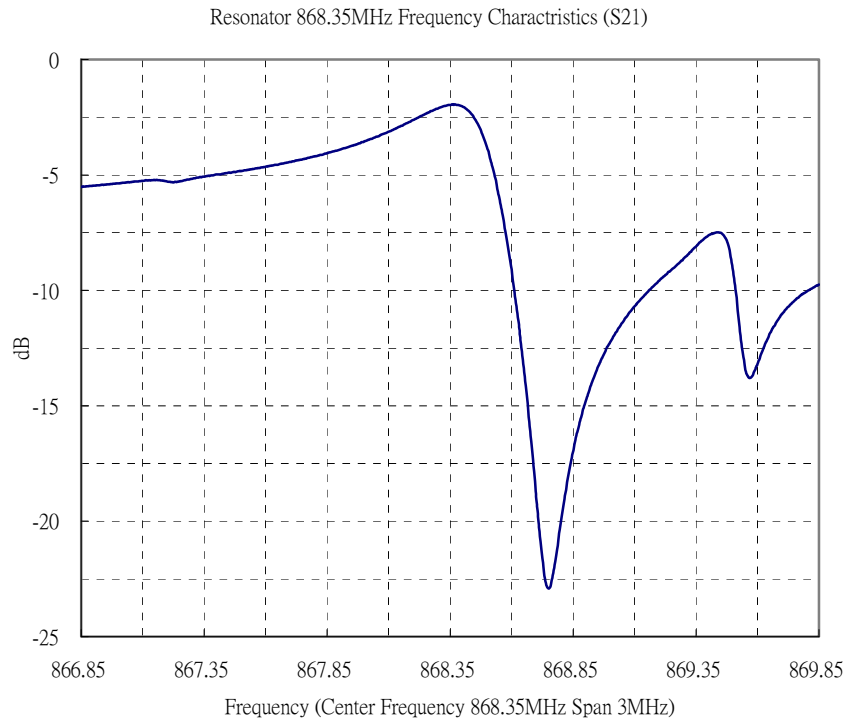
□ Data code : See the table

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

△ Year code : See the table

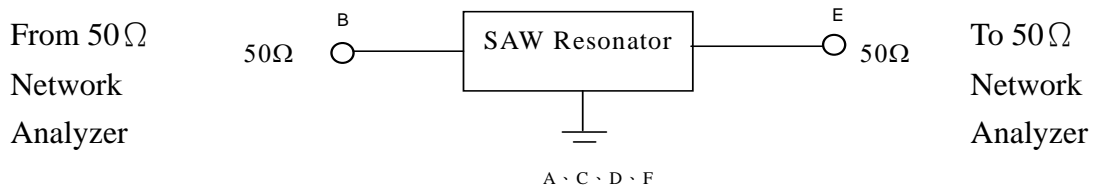
Year	2011	2012	2013	...	2019	2020	2021	...
Code	1	2	3	...	9	0	1	...

F.FREQUENCY CHARACTERISTICS:

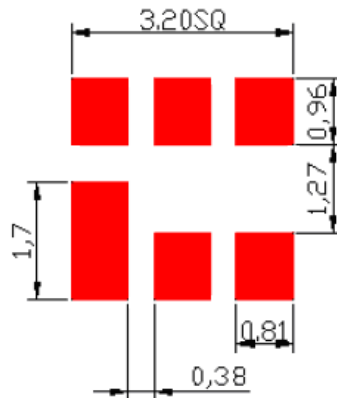


G. TEST CIRCUIT:

Network analyzer

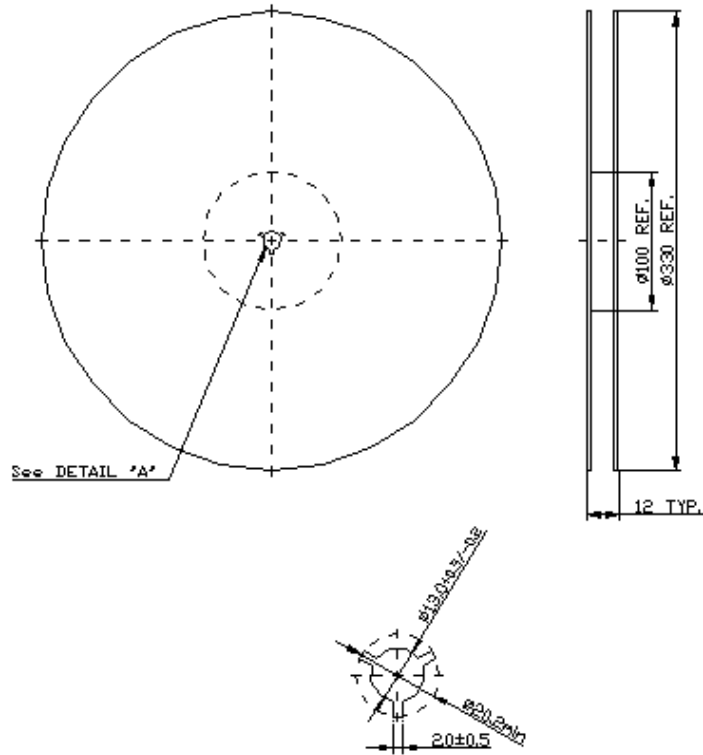


H. LAND PATTERN:

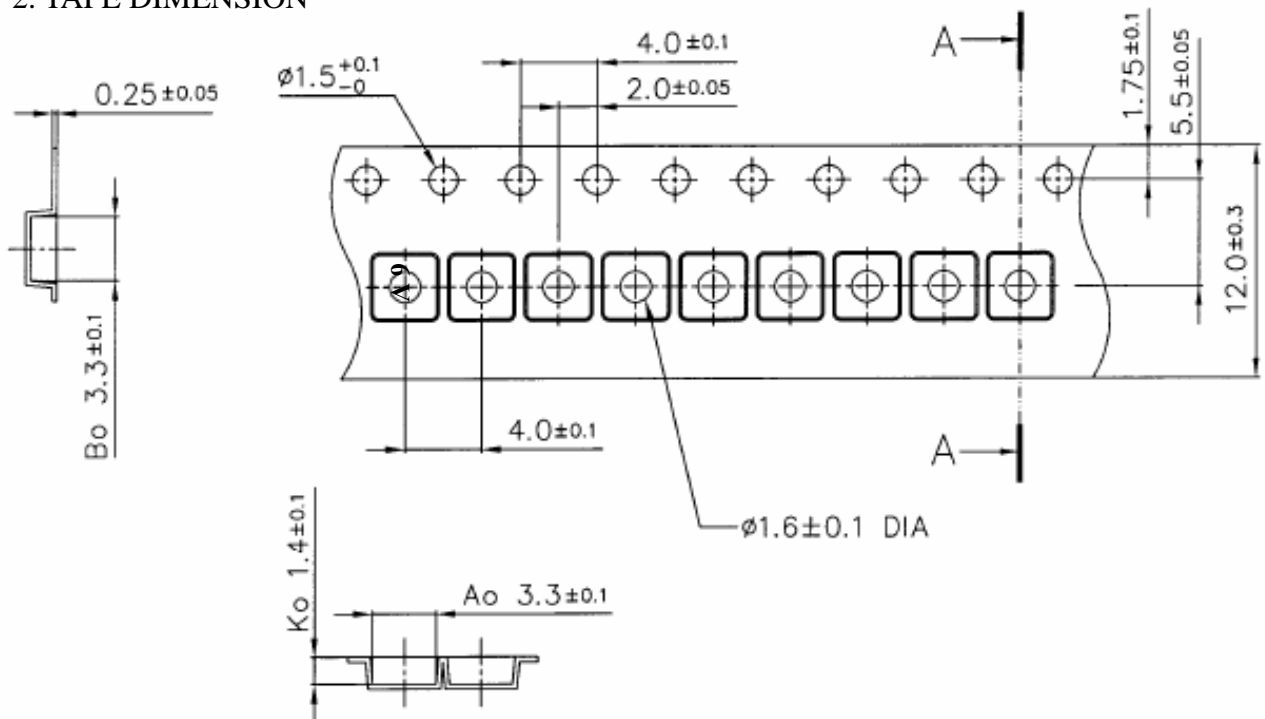


I. PACKING:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



H.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 245~260°C peak (min. 10sec).
4. Time : 2 times.

