TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Name: TCXO SMD 2.0x1.6 38.4MHz

TST Part No.: TX0807EA1252

Customer Part No.:_____

Company:_____

Division:_____

Approved by:_____

Date:_____

Checked by: C.C. Hsu

Approved by: Kelly Huang

Date: 1/14/2021

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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TCXO SMD 2.0x1.6 38.4MHz

MODEL NO.: TX0807EA1252 REV. NO.: 1

Revise:

Rev.	Rev. Page	Rev. Account	Date	Ref. No.	Revised by
1	N/A	Initial release	1/14/21’	N/A	C.C. Hsu

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TCXO SMD 2.0x1.6 38.4MHz

MODEL NO.: TX0807EA1252 REV. NO.: 1

Features:

- Ultra Miniature SMD Package
- Good Frequency Stability
- Good Phase Noise Response
- Moisture Sensitivity Level (MSL) : Level-1

RoHS Compliant

Lead-free soldering

Description and Applications:

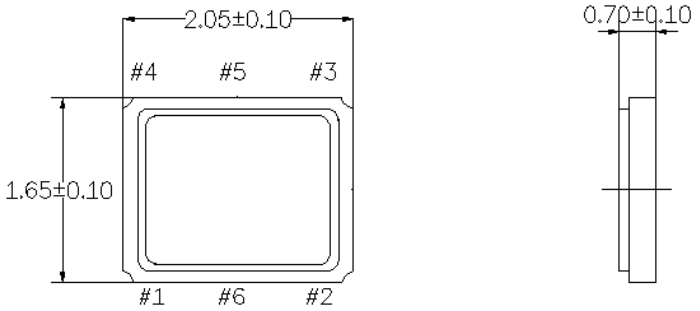
Surface mount 2.0mmx1.6mm TCXO for use in wireless communications devices

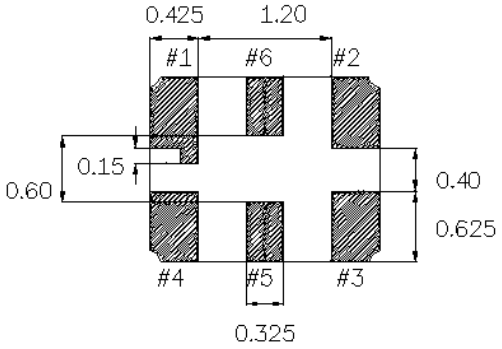
Electrical Specifications:

TX0807EA1252	**Specifications**
Nominal Frequency, Fo	38.4 MHz
Storage Temperature Range	-40°C to +85°C
Operating Temperature Range	-40°C to +85°C
Power Supply Voltage, Vcc	1.68 ~3.6 V (Nominal to 3.3 V)
Output Voltage with Load 10pF//10KΩ, Vout	0.8 Vp-p min
Power Supply Current, Icc	2.0 mA max
Output Wave form	Clipped Sinewave
Frequency Tolerance as received	+/- 1.0 ppm max @ 25°C +/- 2°C
Frequency Tolerance after reflow	+/- 2.0 ppm max @ 25°C +/- 2°C
Frequency Stability a. Vs. Temperature (-40~85°C) b. Vs. Load varied 10pF//10KΩ+/-10% c. Vs. Supply Voltage varied Vcc+/-5%	 +/- 0.5 ppm reference to the middle point between minimum and maximum frequency value +/- 0.2 ppm +/- 0.2 ppm
Frequency slope (Minimum of one measurement every 2°C)	+/-0.1ppm/℃@-40℃~+85℃
Output Load	10kΩ//10pF
Start Up Time (90% of final RF level in Vp-p)	2.0 msec max.
Aging	+/-1.0 ppm/ 1 year @25°C

SSB Phase Noise (@1Hz Carrier Offset) (@10Hz Carrier Offset) (@100Hz Carrier Offset) (@1KHz Carrier Offset) (@10KHz Carrier Offset) (@100KHz Carrier Offset)	-52 dBc/Hz typ -86 dBc/Hz typ -112 dBc/Hz typ -132 dBc/Hz typ -145 dBc/Hz typ -150 dBc/Hz typ
Marking	Laser marking

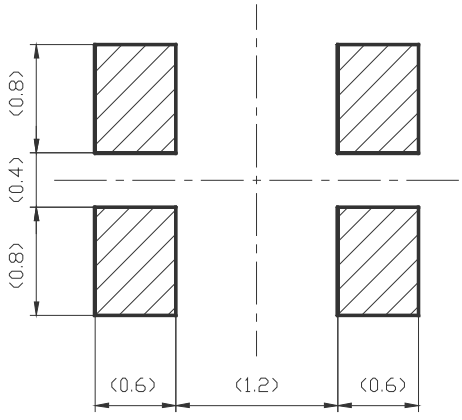
Mechanical Dimensions (mm):





	Pin Connection
#1	GND
#2	GND
#3	Output
#4	+Vcc
#5	No connect
#6	No connect

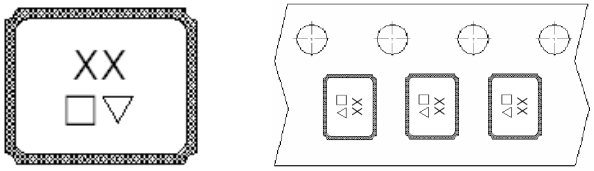
Recommended Land Pattern: (unit: mm)



Marking:

Line 1: Frequency (38)

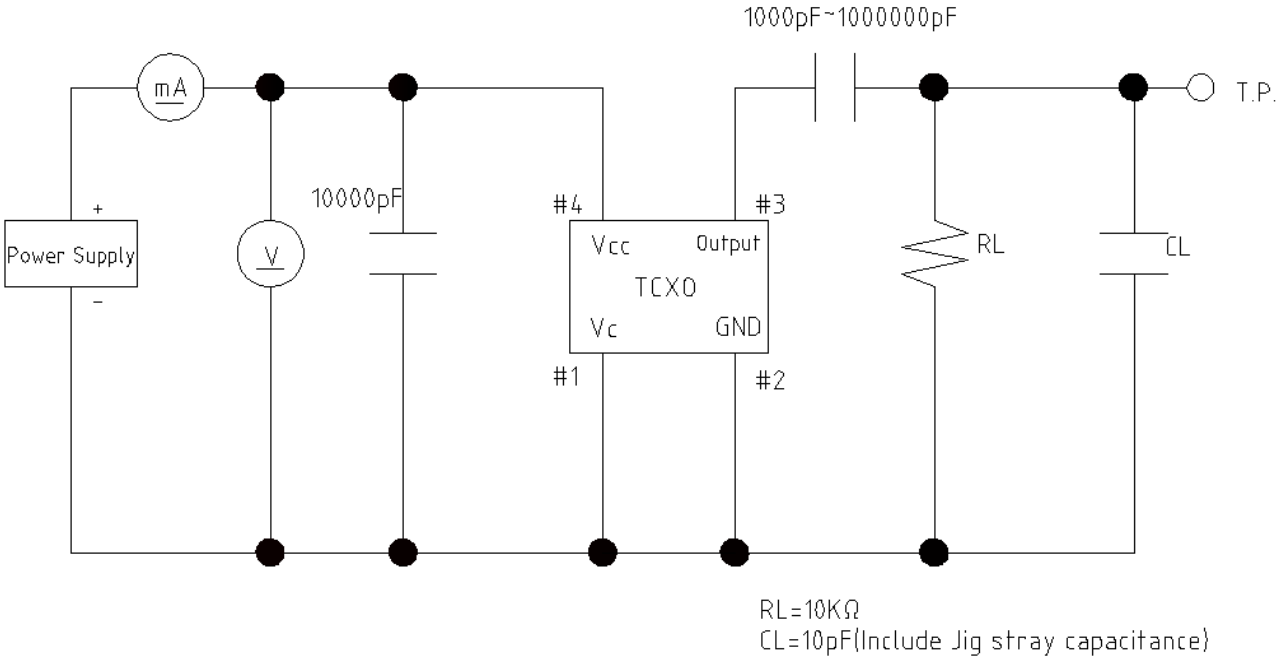
Line 2: Product Code：□ (□ is TST internal tracking code) + Date Code of Year/Month：▽



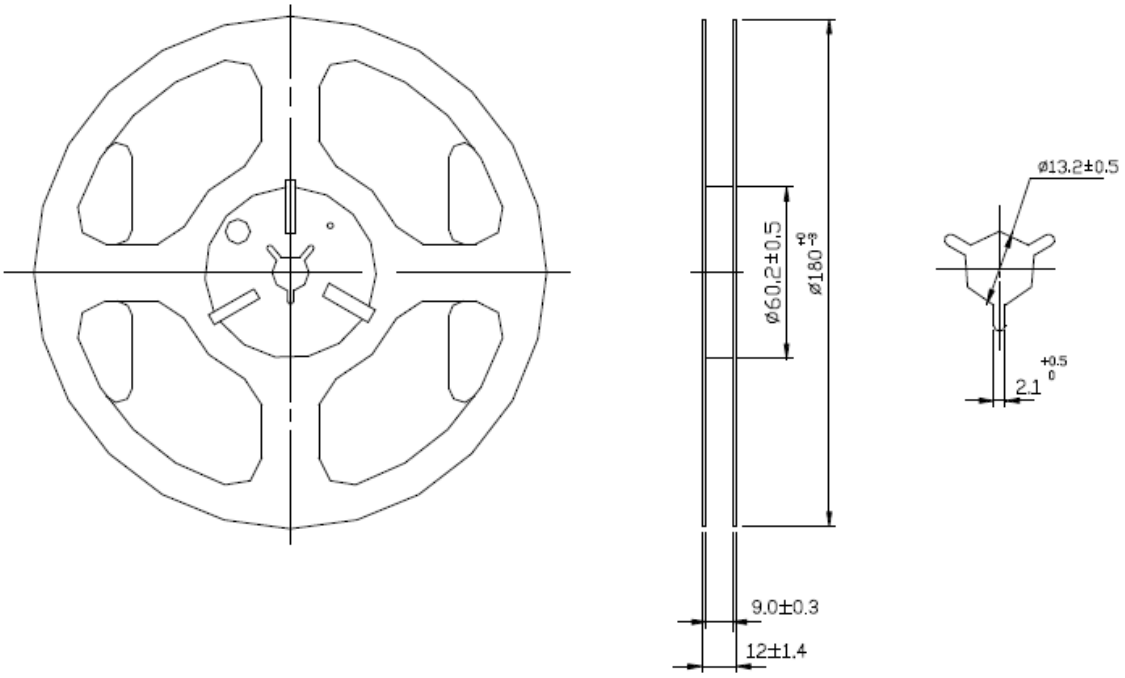
▽ ：**Date Code Table: Year/Month**

Year/Month	1	2	3	4	5	6	7	8	9	10	11	12
2017	n	p	q	r	s	t	u	v	w	x	y	z
2018	A	B	C	D	E	F	G	H	J	K	L	M
2019	N	P	Q	R	S	T	U	V	W	X	Y	Z
2020	a	b	c	d	e	f	g	h	i	j	k	m
2021	n	p	q	r	s	t	u	v	w	x	y	z

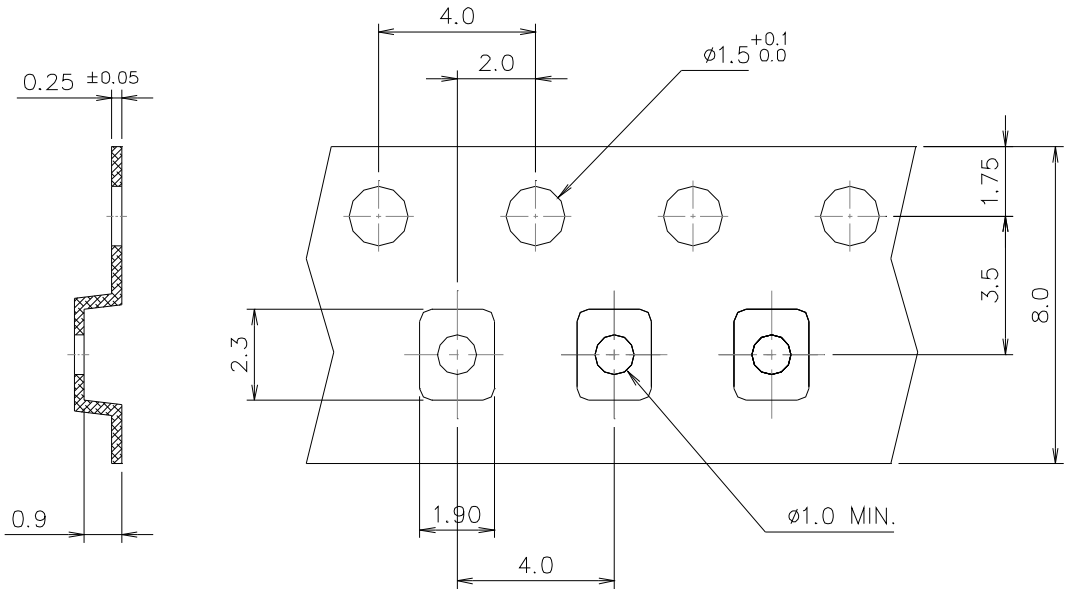
Recommended Circuit



Reel Dimension

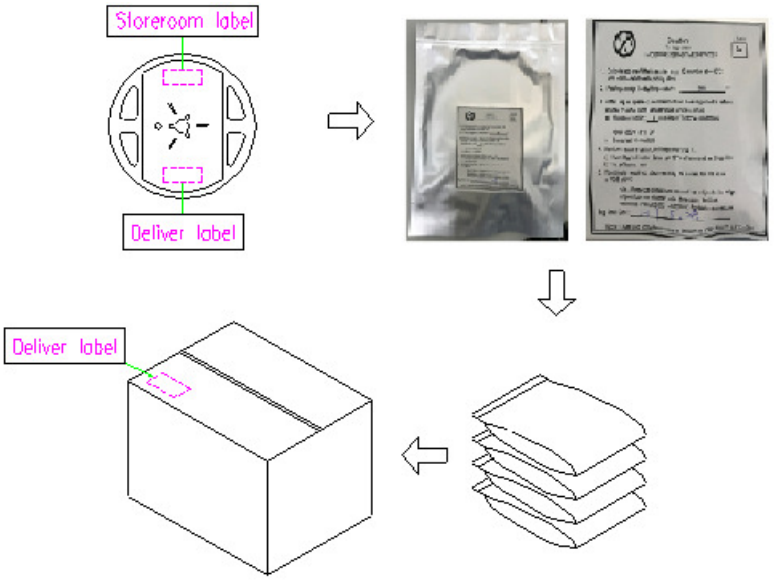


Tape Dimensions (mm)

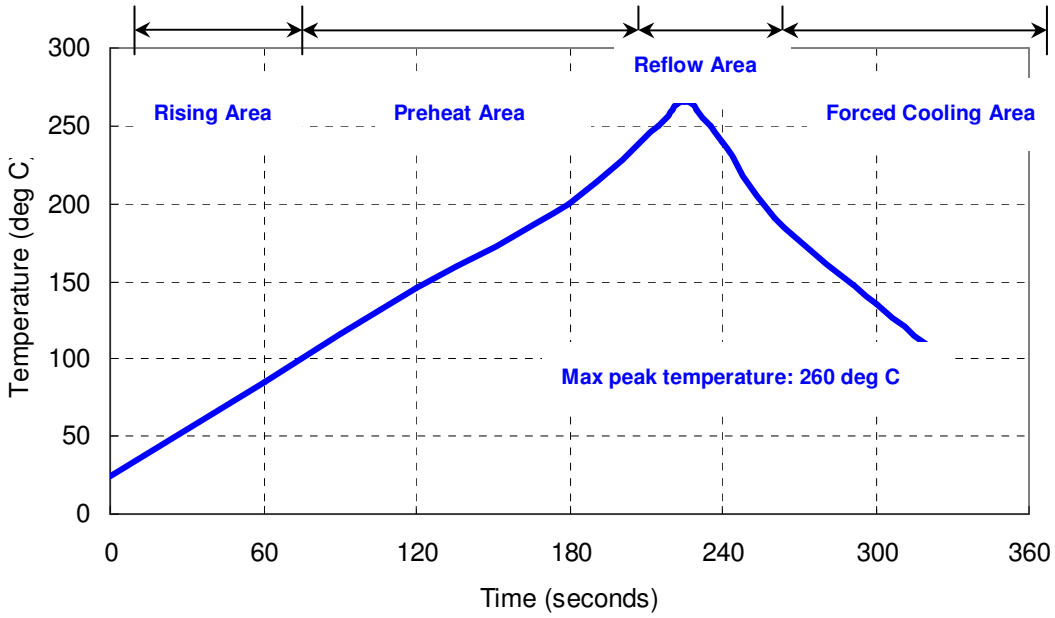


Packing Quantity/Packing:

3K pcs maximum per reel



Reflow Profile:



Notes of the Usage:

1. Touch the solder iron at 260+/-5 deg C onto the leads for 10+/-2 sec max or touch the solder at 350+/-5 deg C onto the leads for 3+/-0.5 sec.
2. In the customer's reflow process, if it will remain some mechanical stress at the soldering terminals, also make some cracks on the soldering termination. Some cracks will cause open or short circuit and cause of thermal increasing or smoking. Don't make any excess mechanical stress to soldering points.
3. In case of giving a heavy shock to the products, it may make an open or short circuit and cause of thermal increasing and smoking. To avoid heavy shock impact applying to products is strictly required.
4. Ultrasonic cleaning should be avoided to prevent damage to the crystal.
5. Do Not Use Ultrasonic-Wave Soldering or Wave Solder with Package Immersed in Solder.

Notes of the Storage:

1. To keep products under the condition at the room temperature (-5~35 deg C) with normal humidity (45~75%). Absorption of moisture and dewdrop may make inferiority of characteristics and a short circuit.
2. Oxidization of terminals shall make the solderability more inferior. Dusts and corrosive gas will make a cause of the open or short circuit. Keep it in the clean place where is not in dusty and no corrosive gas.
3. Use the anti-static material to the storage package.
4. Don't put any excess weight to the TCXO in the storage process.
5. Don't move the product from the cold place to the hot place in the short time, otherwise it may make some dew-drop, then a short circuit may happen in case.
6. Storage periods should be maximum 6 months under condition of above item 1 after delivery from TST factory.
7. Once open the bag, there is possibility of electrical characteristics deterioration due to absorption of moisture. So, please use parts within 7 days after opening the bag.
8. If you have to keep parts without using after opening the bag, please put the drying agent in the bag, fold the bag and keep it in the place where temperature and humidity are controlled (nitrogen atmosphere box etc.)