

# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

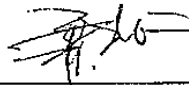
## Product Specifications Approval Sheet

Product Description: VCO, SMD, 7.8mmx6.0mm 740MHz

TST Part No.: TV0143A

Customer Part No.: \_\_\_\_\_

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

Checked by: Eddie Huang 

Approved by: Kelly Huang 

Date: 03/10/2010

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders receive 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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Part No. TV0143A

REV. NO.:1.0

## Description and Application:

- Voltage Control Oscillator, SMD type, 7.8mmx6.0mm.
- Main application: Motorola Barney 350



## Conditions:

Parameter	Symbol	Limits			Units
		min.	typ.	max.	
Supply Voltage	V <sub>cc</sub>	4.4	4.5	4.6	V
Control Voltage Range	V <sub>t</sub>	0.5	2.5	4.5	V
Load Impedance	-	-	50	-	Ohm
Operating Temperature	-	-30	25	70	°C

## Electrical Specifications:

Parameter	°C	Condition	Limits			Units
			min.	typ.	max.	
Power Consumption	25 ± 3	-	-	6	7	mA
Operation Frequency Range	25 ± 3	-	700	-	780	MHz
Control Voltage Sensitivity	25 ± 3	-	25	30	35	MHz/V
Output Level	25 ± 3	-	-15	-	-5	dBm
C/N	25 ± 3	25 KHz offset	-	-	-113.5	dBc/Hz
C/N	25 ± 3	50 KHz offset	-	-	-119.5	dBc/Hz
C/N	25 ± 3	100 KHz offset	-	-	-125.5	dBc/Hz
C/N	25 ± 3	500 KHz offset	-	-	-139	dBc/Hz
C/N	25 ± 3	10 MHz offset	-	-	-152	dBc/Hz
Harmonics	25 ± 3	2fo, 3fo	-	-	-15	dBc
Pushing	25 ± 3	V <sub>cc</sub> =4.5±0.1V, ref V <sub>cc</sub> =4.5V	-	-	+0.5	MHz
Pulling	25 ± 3	VSWR=2.0 for all phase, ref:50Ohm	-	-	+1.0	MHz

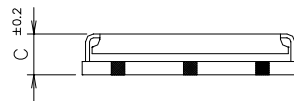
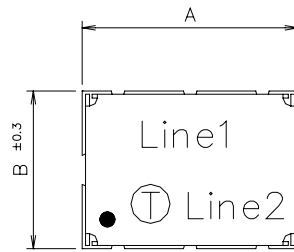
Unless otherwise specified, the standard test conditions are as follow:

Ambient temperature: 25 ± 3 °C

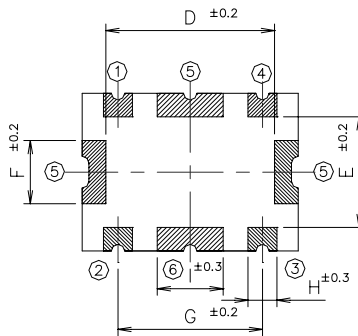
Relative humidity: 40% to 70%

## Mechanical Dimensions (mm):

A=7.8  
 B=6.0  
 C=1.7  
 D=6.0  
 E=4.2  
 F=2.4  
 G=5.5  
 H=1.1  
 I=2.2



Pin #1= RF OUT  
 Pin #2= Vcc  
 Pin #3= Vcont (Vt)  
 Pin #4= GND  
 Pin #5= GND  
 Pin #6= GND



## Marking:

Line 1= 0143 (TST P/N)  
 Line 2= TST Logo + VCO Product/Year Code + Date Code

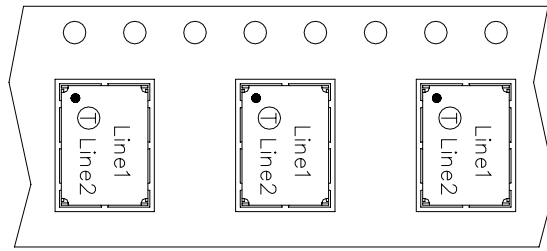
## Product/Year Code Table:

Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	V	v	<u>V</u>	<u>v</u>

## Date Code 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

## Part Orientation:

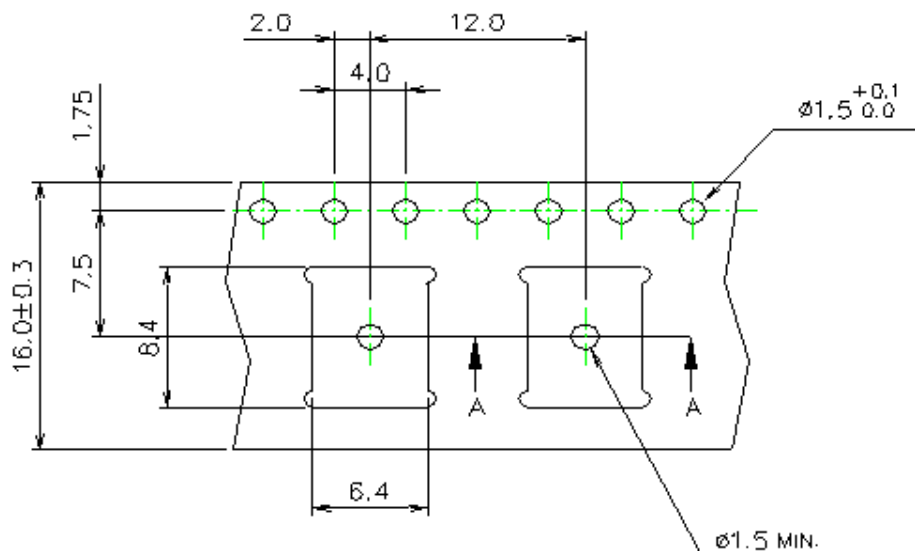


### 7.8x6.0mm Package Carrier Tape

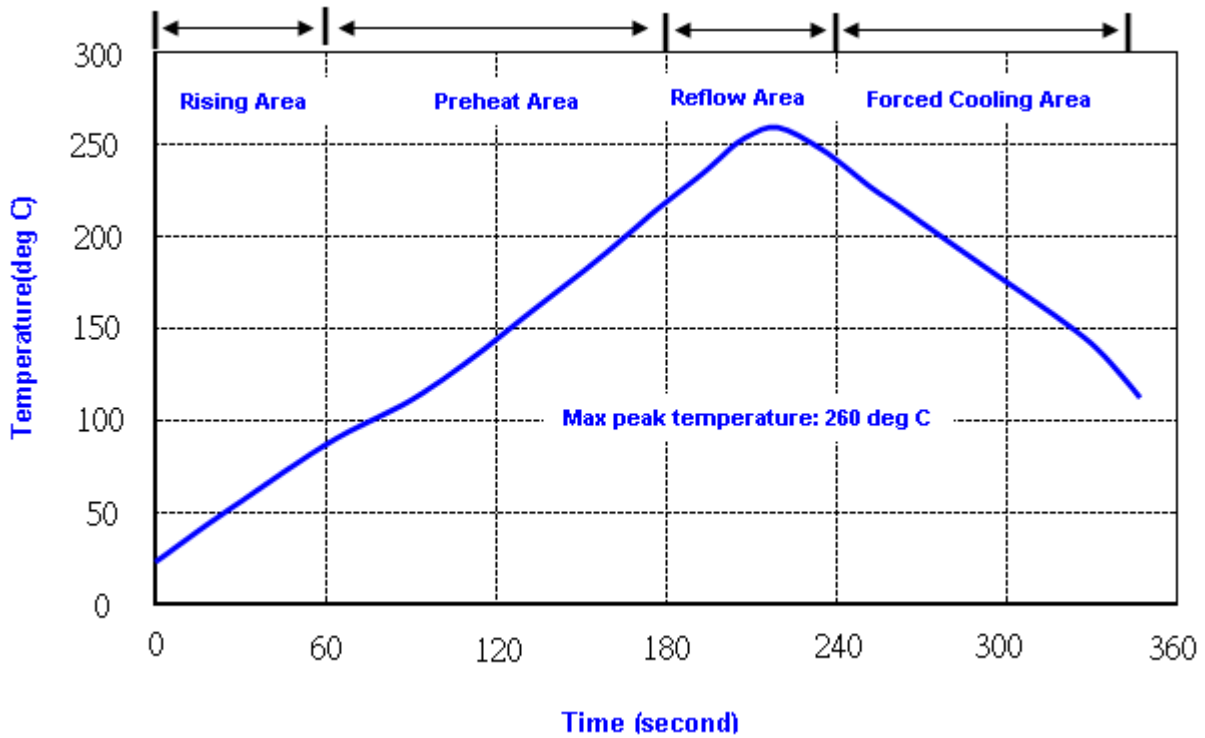
Tape Width:	16 mm
Tape Pitch (part to part):	12 mm
Reel Diameter	320.2 mm (13 inches)
Quantity per reel	2000

### [NOTES]

1. UNIT : MM.
2. UNLESS OTHERWISE SPECIFIED TOLERANCE ON DIM. +/-0.1MM.
3. MATERIAL: CONDUCTIVE POLYSTYRENE.
4. COLOR: BLACK.
5. 10 PITCH CUMULATIVE TOLERANCE +/-0.2MM.



## Suggested Reflow Profile:



**Note: 1. Max peak temperature: 260 $\pm$ 5 deg C; Time: 10 $\pm$ 2 sec**

**2. Temperature: 217 $\pm$ 5 deg C; Time: 90~100 sec**