

# Specification

Date : Jul. 25, 06

TO : Beceem

Approved by
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Selling agency  
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Let us Submit 1Copy of the approved Specification on the below items.

Product	Crystal Oscillator
Model	KT2520Y40000ECV28TBA ( <b>Pb-Free / RoHS Compliant</b> )
Frequency	40.0MHz
Specification No.	_____
Customer Parts No.	_____

Engineering KYOCERA KINSEKI Yamagata Corporation Crystal Oscillator Manufacturing Department Crystal Oscillator Engineering section	Issued by Y. Kakuta <i>Y. Kakuta</i>	Approved by Y. Tachiiri <i>Y. Tachiiri</i>	Drawing No. K1101-06241-581
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※Recycled paper is being used for the conservation of nature.

KYOCERA KINSEKI Corporation

KBSK-5110C

# Revision History

Revision No.	Revision Date	Customer Receipt Date	Supplier Receipt Date	Revision Content and reason	Notes	Approved by	Checked by	Prepared by
1	06/07/25			<input checked="" type="radio"/> Document not based on Beceem Specification. <input type="radio"/> The first edition.		<i>F. Tochiwa</i>	X	<i>F. Nakata</i>
KYOCERA KINSEKI Corporation				Dwg. Date	2006/7/25	Dwg. No.	K1101-06241-581-1/7	

## 1. Purpose and scope

This document contains specification related to CRYSTAL OSCILLATOR model KT2520Y40000ECV28TBA for Beceem.

## 2. Nominal condition

	Item	Rating
1	Operating temperature range	-30°C to +80°C
2	Storage temperature range	-40°C to +85°C
3	Nominal frequency	40.0 MHz
4	Supply voltage	2.8V±5%
5	Load impedance	10kΩ//10pF±10%
6	Output signal condition	Clipped sine wave ( Without DC-cut )

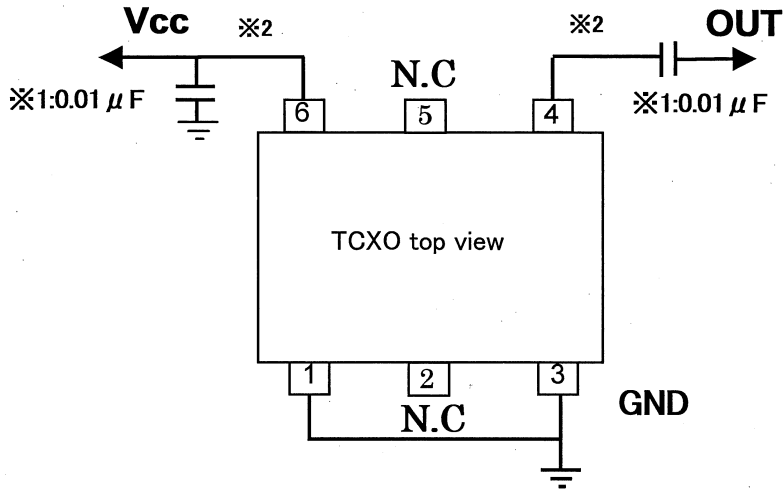
## 3. Electrical characteristics

Ta= -30°C to +80°C, Vcc=2.8V, Vc=GND, Load 10kΩ//10pF

	Item	Specification
1	Frequency stability	
	1	Temp characteristics ±2.5 × 10 <sup>-6</sup> max. / -30°C to +80°C ( On the basis of 25°C frequency )
	2	Voltage characteristics ±0.3 × 10 <sup>-6</sup> max. / 2.8V±5%
	3	Load characteristics ±0.3 × 10 <sup>-6</sup> max. / 10kΩ//10pF±10%
	4	Aging characteristics ±1.0 × 10 <sup>-6</sup> max. / year ( at 25°C±2°C )
	5	Frequency Tolerance ±1.5 × 10 <sup>-6</sup> max. (After reflow soldering. Ref. at nominal frequency) ( at 25°C±2°C )
2	Current	2.0 mA max.
3	Output voltage	0.8 Vp-p min.
4	Harmonics	-5dBc max.

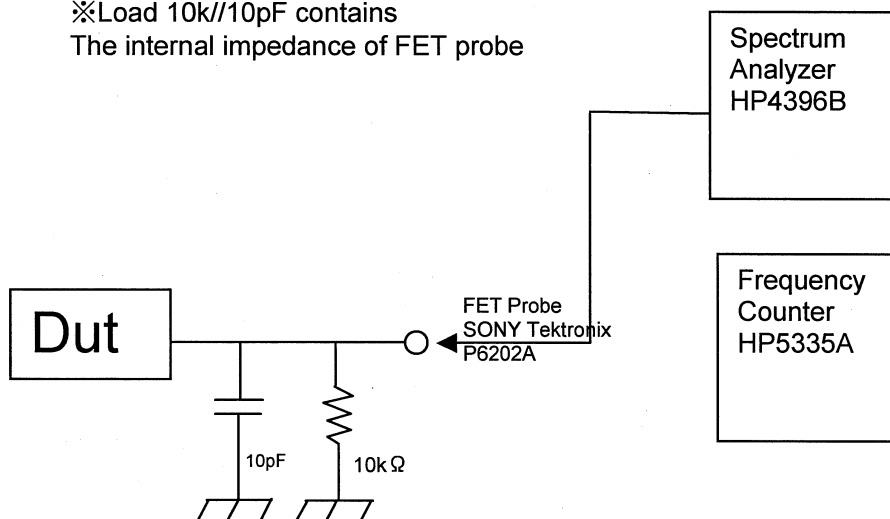
#### 4. TYPICAL EXTERNAL COMPONENT CONNECTION

※1 Bypass Capacitor and DC-Blocking Capacitor do not build in this TCXO. So, Bypass Capacitor and DC-Blocking Capacitor are attached outside and please use it. And these Capacitor should be placed as close as possible to the pin(No.3 and No.4). ※2



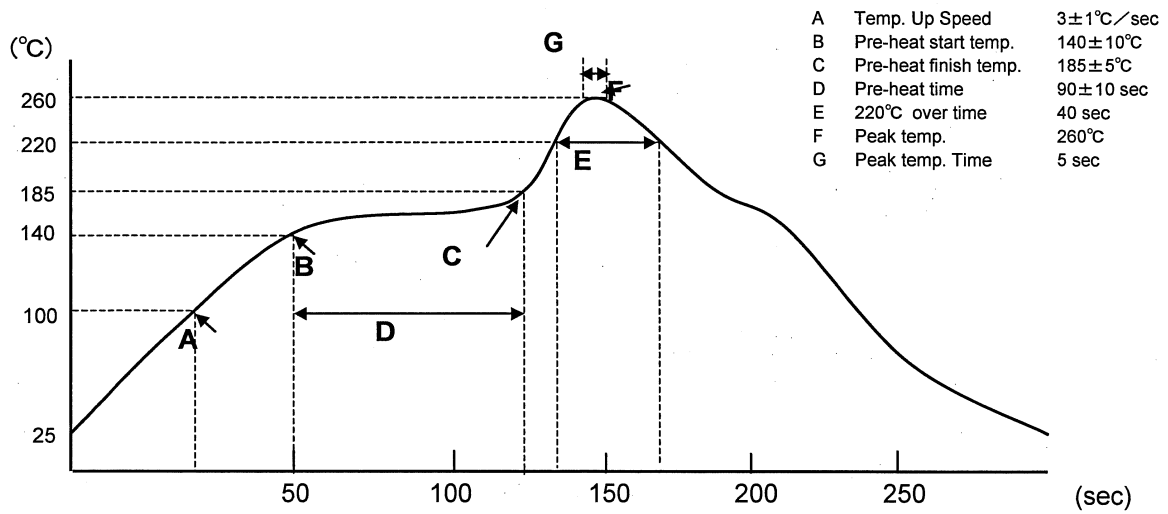
#### 5. ELECTRICAL MEASUREMENT SYSTEM DIAGRAM

※Load 10k//10pF contains  
The internal impedance of FET probe

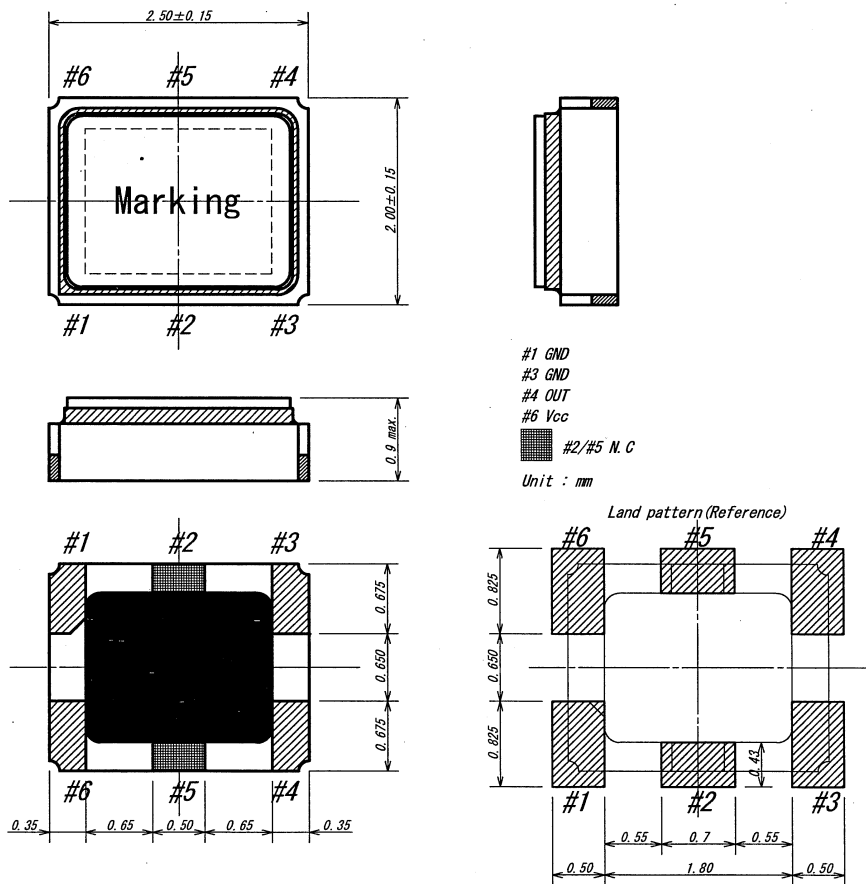


## 6. Reflow

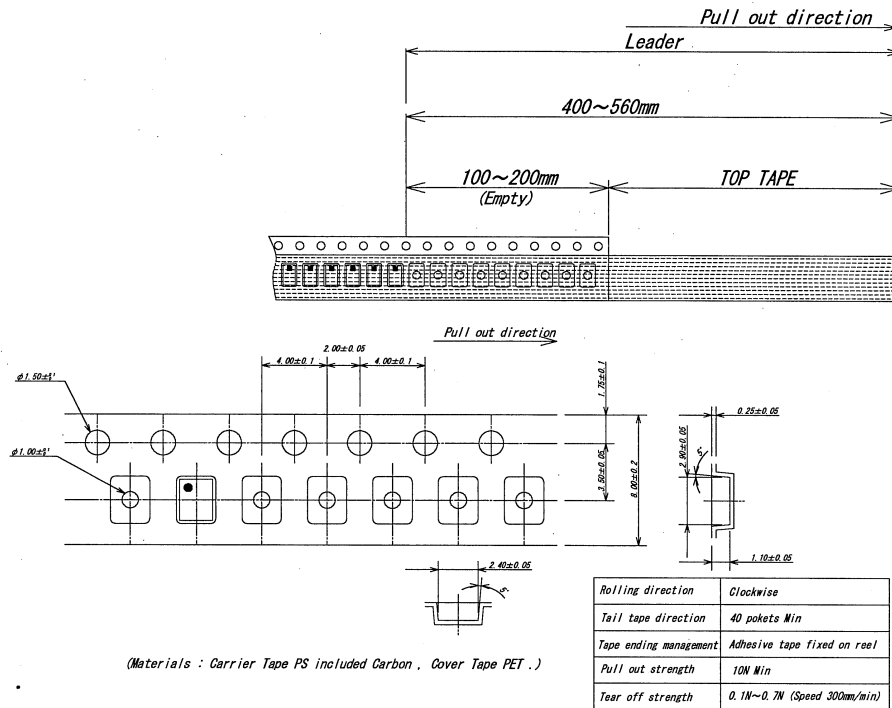
Surface of mother board



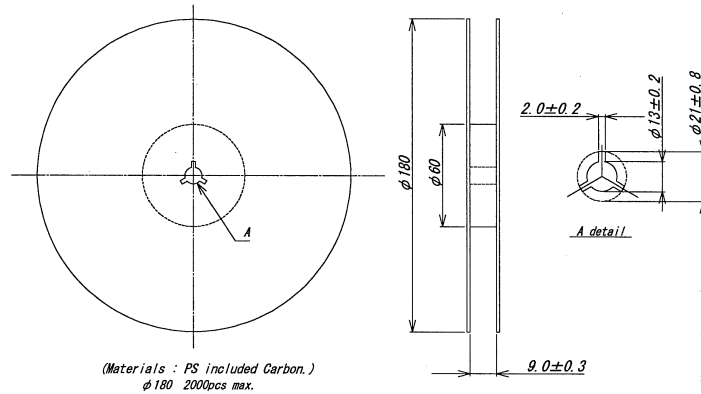
## 7. Dimensions



## 8.Packing and shipping



### Reel Dimensions



- ① Reel diameter φ180
- ② Quantity 2000pcs
- ③ Tape width 8mm
- ④ Tape pitch 4mm
- ⑤ Set direction Guide side , Fiduicail marking
- ⑥ For exclusive label No.

## 9. Parts Numbering Guide

**KT2520Y   40000   E   C   V   28   T   BA**  
A                      B        C    D    E    F        G        H

- A. Series ( 2.5 × 2.0 SMD KT2520Y )
- B. Frequency ( 40.0MHz )
- C. Frequency temperature accuracy ( E : ±2.5ppm )
- D. Minimum temperature range ( C : -30°C )
- E. Maximum temperature range ( V : +80°C )
- F. Supply voltage ( 28 : 2.8V )
- G. Control voltage stability ( T : TCXO )
- H. Customer special model Suffix