

TCXO 6TG2600001	Product Specification	Produced date Revised date	2016.04.07
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Product Specification

TCXO

Model	6TG2600001
Size	2016
Frequency	26.000000MHz
Type	TCXO
Vcc	+1.7V ~ +3.3V
Vcont	-
AFC Range	-
Temp.	±0.5ppm max.@-30 ~ +85℃
Slope	±0.1ppm/℃ max.@-20 ~ +70℃ ±0.2ppm/℃ max.@-30 ~ -20℃, ±0.2ppm/℃ max.@+70 ~ +85℃
Initial Frequency	±1.0ppm max.

Issued	2016.04.07
Revised	
Customer	
Prepared part	R&D
Drawn	BaiCuiLi
Checked	Jin Zhe
Approved	Liu GuoQiang

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1. Electrical Characteristics

Supply Voltage(Vcc)	+1.8V±5%
	+2.4V±5%
	+2.8V±5%
	+3.0V±5%
Output Load	10kohm//10pF±10%
Control Voltage(Vcont)	-

Parameter	Value	Conditions
Output Level	0.8Vp-p min	Clipped sine wave(DC-coupled)
Current	1.5mA max	10koms//10pF±10%
Operating Temperature Range	-30~+85℃	
Storage Temperature Range	-40~+85℃	
Frequency Stability		
vs. Temperature(-30 ~ +85℃)	±0.5ppm max.	Referenced to +25℃ frequency
vs. Supply Voltage	±0.2ppm max.	+1.8V±5% , +2.4V±5% , +2.8V±5%, +3.0V±5%
vs. Load	±0.2ppm max.	10koms//10pF±10% each
vs. Aging	±1.0ppm max.	1Year
vs. Reflow soldering	±1.0ppm max.	2times
Frequency Stability Slope		
vs. Temperature(-20 ~ +70℃)	±0.1ppm/℃ max.	Every +2℃
vs. Temperature(-30 ~ -20℃)	±0.2ppm/℃ max.	
vs. Temperature(+70 ~ +85℃)	±0.2ppm/℃ max.	
Initial Frequency Tolerance	±1.0ppm max.	+25℃
Startup Time	2ms max.	more than 90% of final amplitude
Voltage Control Range	-	-
Phase Noise	-91dBc/Hz typ. -120dBc/Hz typ. -138dBc/Hz typ. -145dBc/Hz typ. -143dBc/Hz typ.	10Hz offset 100Hz offset 1KHz offset 10KHz offset 100KHz offset

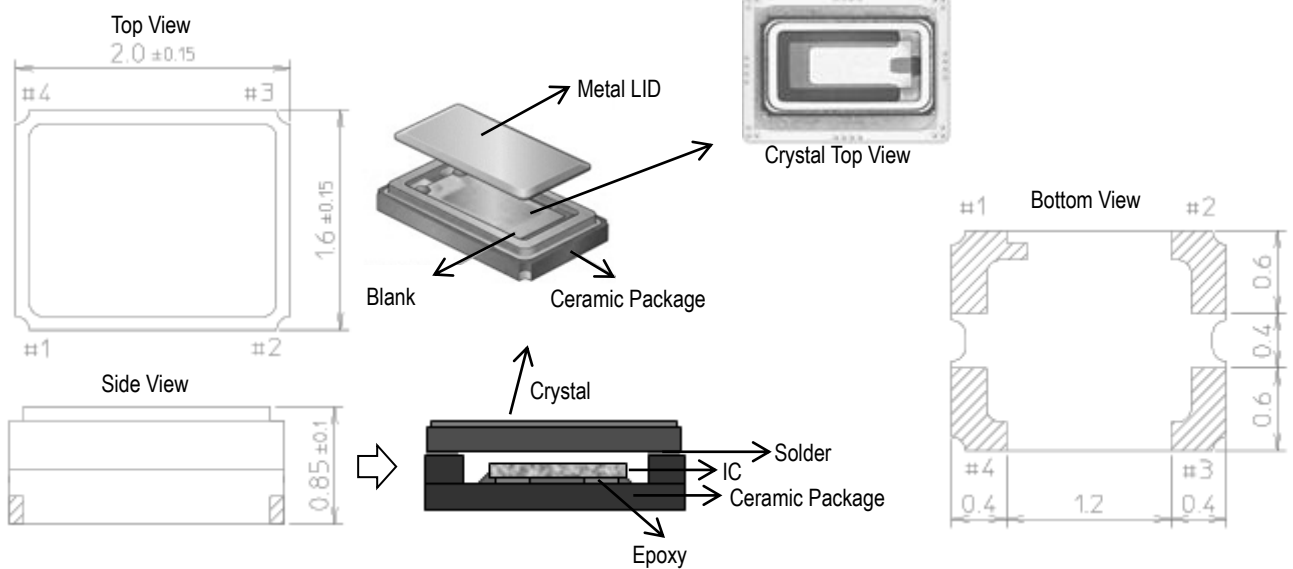
Notes:

- Please leave after reflow in 2h or more at room ambient

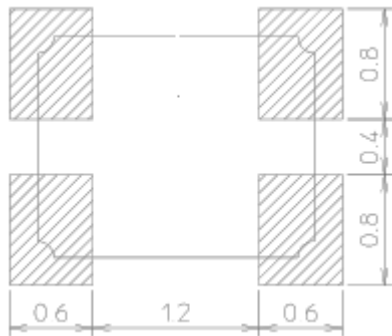
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2. Outline Specification

Unit: mm

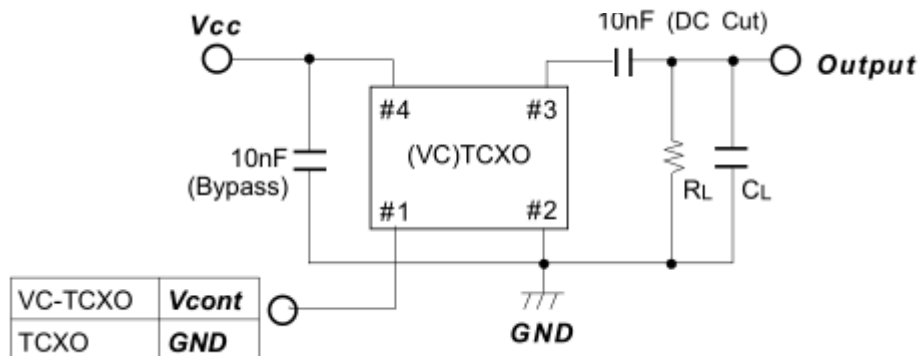


Recommended Land Pattern



Pad No.	Connection	
	TCXO	VC-TCXO
#1	GND	Vcont
#2	GND	GND
#3	Output	Output
#4	Vcc	Vcc

Measurement Circuit

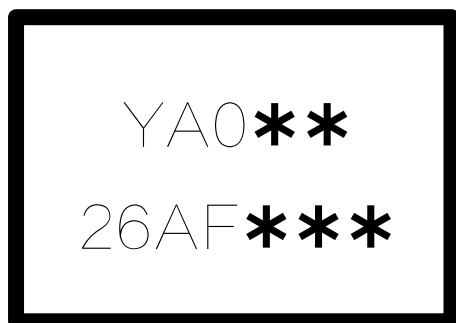


Notes:

- Please connect a bypass capacitor closely to Vcc Pad.
- Load capacitance (CL) includes probe and test board capacitance.

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3. Marking Specification



●Mark-1: YA0**
① ②~③ ④~⑤

●Mark-2: 26AF***
①~③ ④ ⑤~⑦

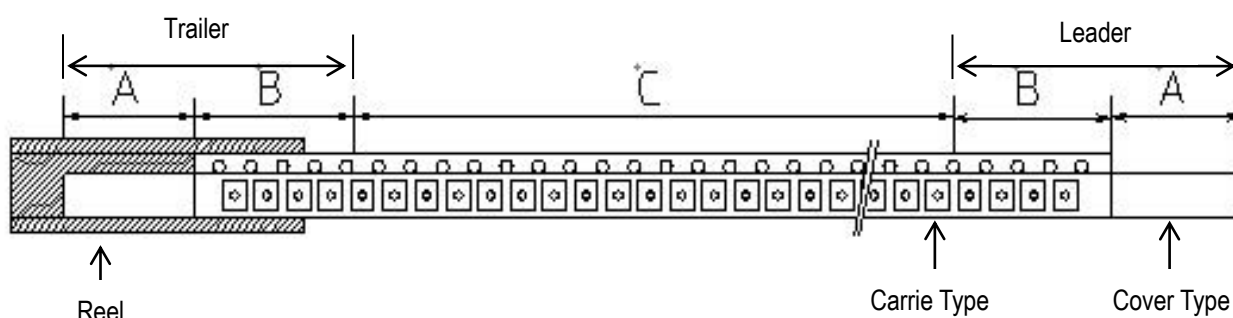
Mark-1 (X-TAL Marking)		
Digit order	Symbol	Explanation
1	Y	YL(YouLian)
2~3	A0	Frequency
4~5	**	Production Week
Mark-2 (TCXO Marking)		
Digit order	Symbol	Explanation
1~3	26A	Frequency
4	F	Serial Number(A~Z)
5~7	***	Production Year + Month + Day

X-TAL Frequency: A0					
Symbol	Frequency [MHz]	Symbol	Frequency [MHz]	Symbol	Frequency [MHz]
A0	26.000000	E0	16.367000	I0	24.576000
B0	19.200000	F0	16.384000	J0	20.480000
C0	40.000000	G0	27.456000		
D0	16.368000	H0	38.400000		
TCXO Frequency: 26A					
Symbol	Frequency [MHz]	Symbol	Frequency [MHz]	Symbol	Frequency [MHz]
16B	16.367667	13A	13.000000	40A	40.000000
16C	16.367000	19B	19.200000	38B	38.400000
16D	16.367600	26A	26.000000		
16E	16.368000	32A	32.000000		
16F	16.369000	32B	32.768000		

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4. Packing Specifications

Basic Taping Specification

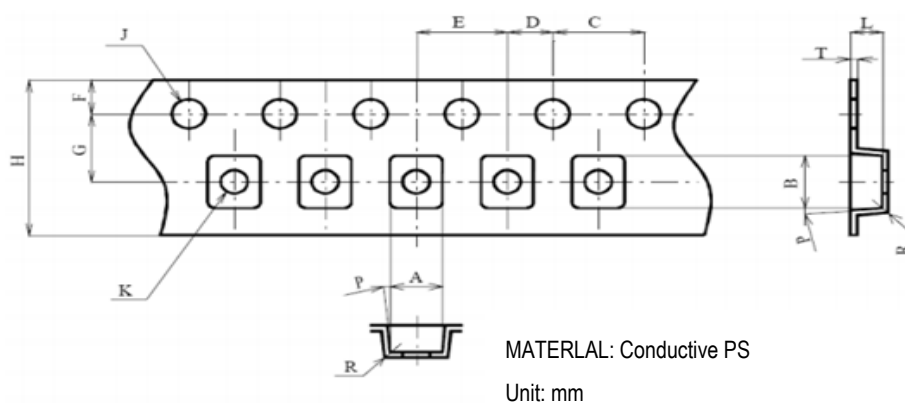


A	Cover tape only	200mm min.
B	Empty carrier tape	300mm min.
C	Component Section	

Notes:

- Insert TCXO product in carrier tape
- Attach cover tape using heat pressing method

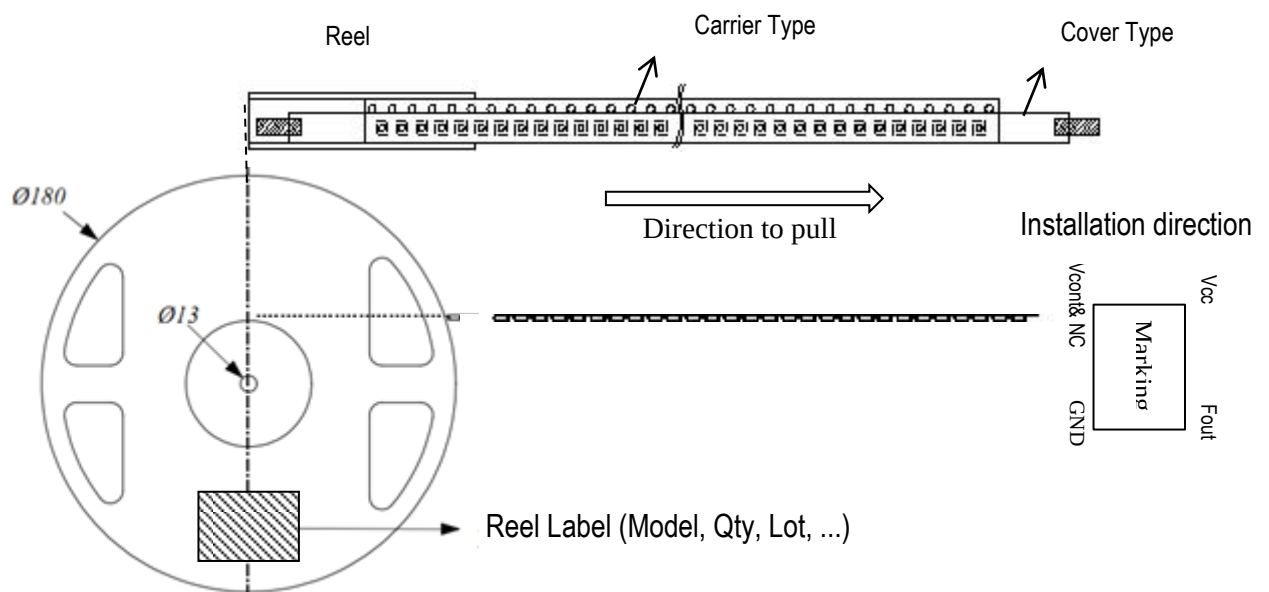
Carrier Tape (8mm)



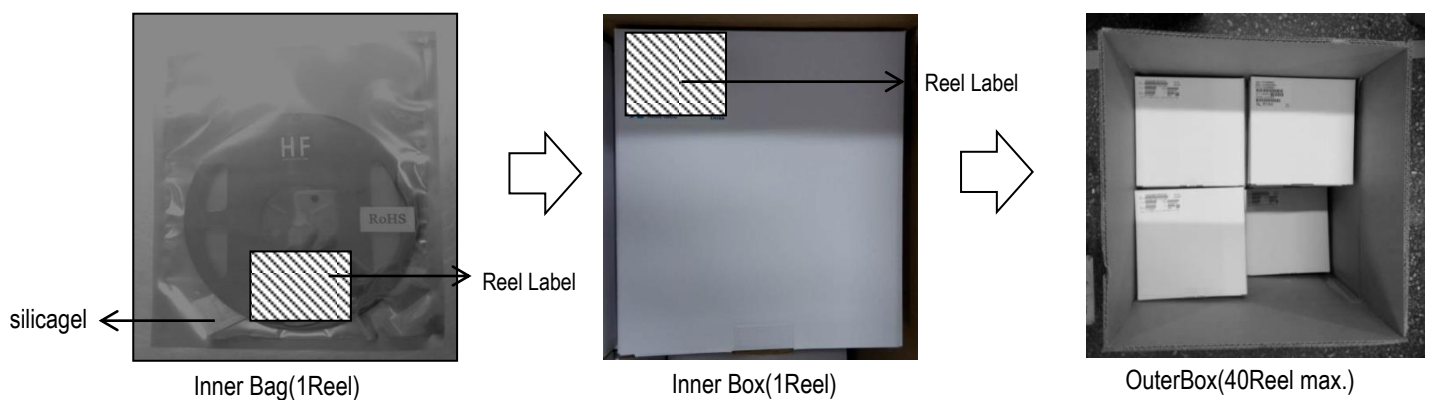
Symbol	A	B	C	D	E	F	G
Dimension	2.95±0.1	2.35±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.75±0.1	3.5±0.05
Symbol	H	J	K	L	P	T	R
Dimension	8.0±0.2	Φ 1.5+0.1/-0	Φ 1.0±0.1	1.25±0.1	8° max.	0.25±0.05	R0.3 max.

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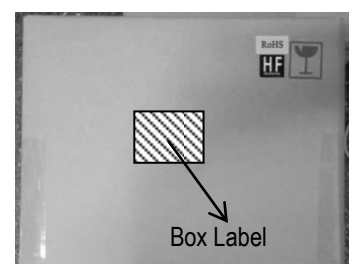
Reel Taping



Inner Bag / Inner Box / Outer Box

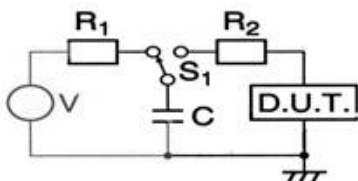


Reel	Inner Bag	Inner Box	Outer Box
3,000pcs	3,000pcs	3,000pcs	120,000pcs max.



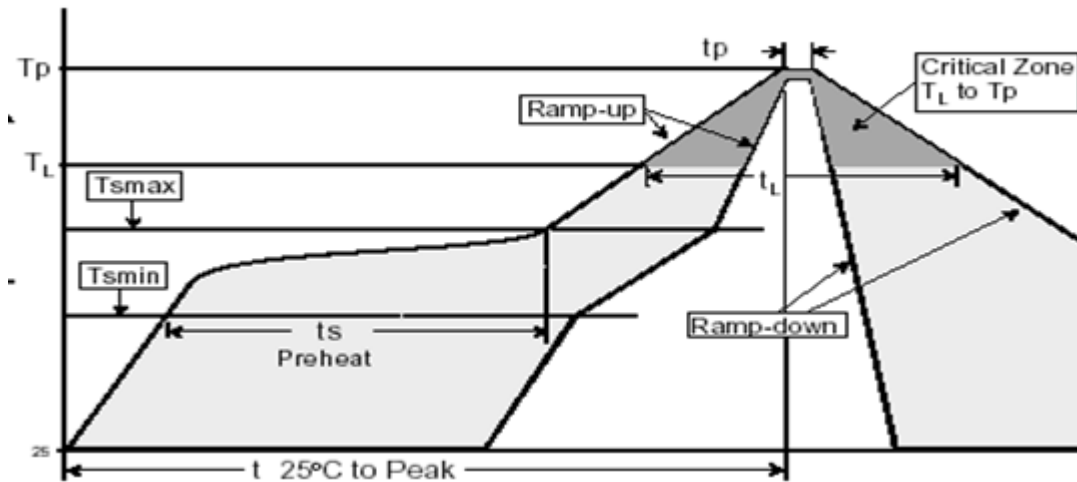
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5. Reliability Specifications

N	Test Item	Test condition	Criteria
1	MSL 1 (Preconditioning)	125°C 24hr → 85°C/85%RH 168hr → 3times Reflow It shall be measured after 4hr to 12hr at room temperature, humidity.	±1.0ppm
2	Temp. Operating	25°C → Low Operating Temp.(72hr) → High Operating Temp.(72hr) [Bias : Supply Voltage]	±0.5 ppm
3	THB-Temperature Humidity Bias	+85±2°C, 85±5%RH, 240hr [Bias : Supply Voltage] It shall be measured after 4hr to 12hr at room temperature, humidity.	±1.0 ppm
4	High Temp. Storage	+125±2°C, 240hr It shall be measured after 4hr to 12hr at room temperature, humidity.	±1.0 ppm
5	Low Temp. Storage	-55±2°C, 240hr It shall be measured after 4hr to 12hr at room temperature, humidity.	±1.0 ppm
6	Temp. Cycling	-55±2°C/30min ~ +85±2°C/30min, 100Cycle It shall be measured after 4hr to 12hr at room temperature, humidity.	±1.0 ppm
7	Drop	120cm(12times), 150cm(9times), Total 31times onto Iron-plate, Jig(120~150g)	±1.0 ppm
8	PCT	121°C, 100%, 96hr It shall be measured after 2hr to 48hr at room temperature, humidity. ● Recommend 24hr	±1.0 ppm
9	Vibration	20~2000Hz, PSD 0.053g ² /Hz, X.Y.Z direction, 15min/direction	±1.0 ppm
10	ESD-HBM	HBM, V=±1KV, C=100pF, R1=10M, R2=1.5K, 3times 	±1.0 ppm

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6. Recommended Reflow Profile



1	Preheat(Ts,ts)	+160~+180°C, 120s max.
2	Soldering(TL,tL)	+220°C, 60s max.
3	Peak(Tp,tp)	+260°C, 10s max.
4	25°C to peak(t)	8min max.