

VC-TCXO 2WN2600001	Product Specification	Produced date / Rev. Revised date	2020.08.31 / S1 2020.09.15 / S2
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Product Specification

VC-TCXO

Customer	
Model	2WN2600001
Size	2520
Frequency	26.000000MHz
Type	VC-TCXO
Vcc	+2.4V ~ +3.3V
Vcont	+1.4 ± 1.0V
AFC Range	±9.0 ~ ±15.0ppm
Temp.	±2.0ppm max.@-30 ~ +85°C
Initial Frequency	±2.0ppm max.(After 2times reflow)

Issued Date	2020.08.31
Revised Date	2020.09.15
Prepared part	R&D
Drawn	Han Shuang
Checked	kuro.peng
Approved	Jay

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1. Electrical Characteristics

Parameter		Value	Conditions
Frequency		26.000000MHz	
Supply Voltage(Vcc)		+2.8V±5%	
		+3.0V±5%	
Output Load		10kohm//10pF±10%	
Auto Frequency Control(AFC)		±9.0 ~ ±14.0ppm	+1.4 ± 1.0V
Output Level		0.8Vp-p min.	Clipped sine wave(DC-coupled)
Current		1.5mA max.	10koms//10pF±10%
Duty Cycle		50±10%	
Operating Temperature Range		-30~+85℃	
Storage Temperature Range		-40~+85℃	
Initial Frequency Tolerance		±2.0ppm max.	After 2times reflow
Frequency Stability	vs. Temperature(-30 ~ +85℃)	±2.0ppm max.	Referenced to +25℃ frequency
	vs. Supply Voltage	±0.1ppm max.	Vcc±5%
	vs. Load	±0.1ppm max.	10koms//10pF±10% each
	vs. Aging	±1.0ppm max.	1 st Year
Startup Time		2ms max.	more than 90% of final amplitude
Phase Noise		-130dBc/Hz typ.	1KHz offset
ESD		HBM>2000V	JESD22-A114-B
MSL		1 级	IPC/JEDEC J-STD-033C

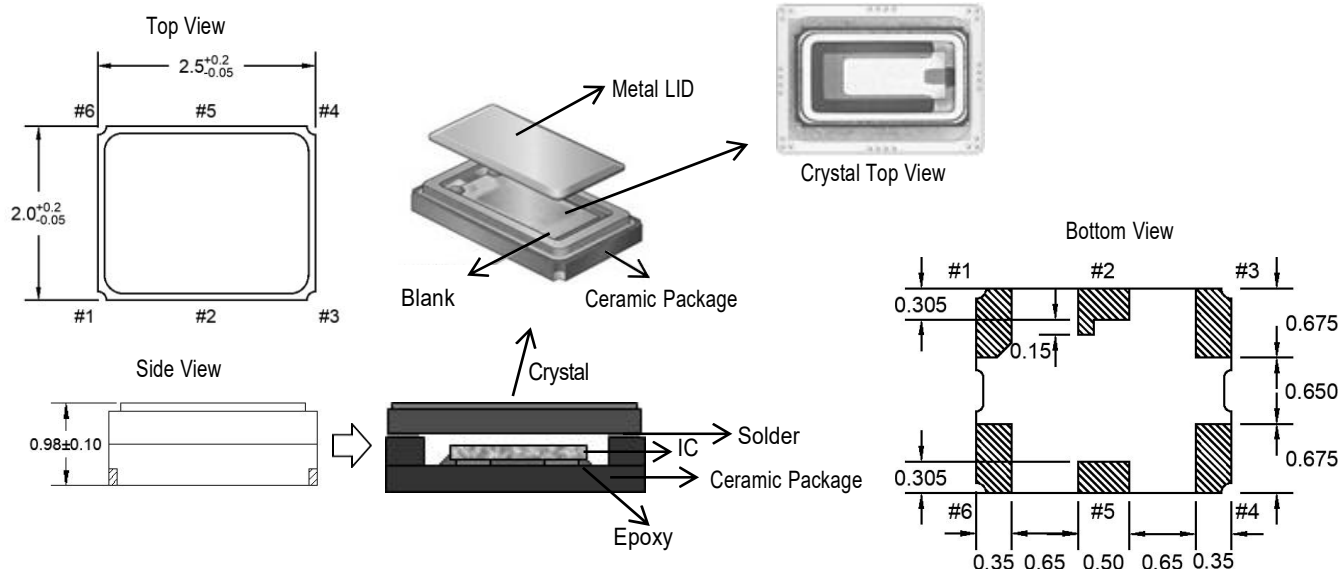
Notes:

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

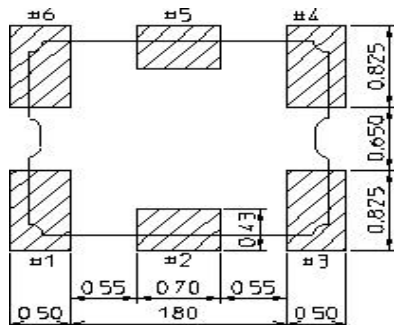
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2. Outline Specification

Unit: mm

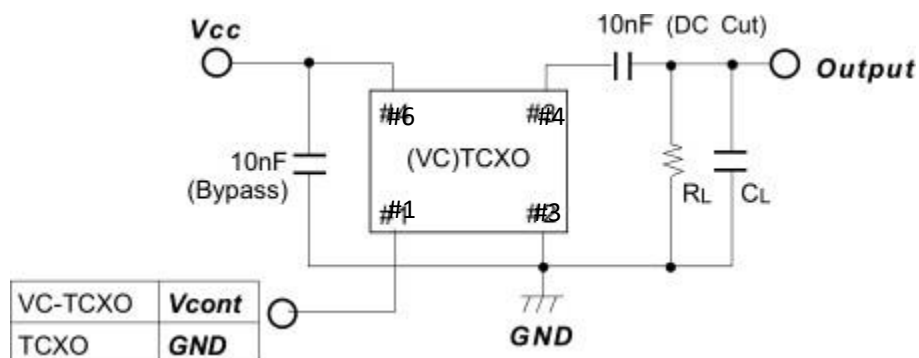


Recommended Land Pattern



Pad No.	TCXO	Connection	VC-TCXO
#1	GND		Vcont
#3	GND		GND
#4	Output		Output
#6	Vcc		Vcc
#2,#5	N.C.		N.C.

Measurement Circuit

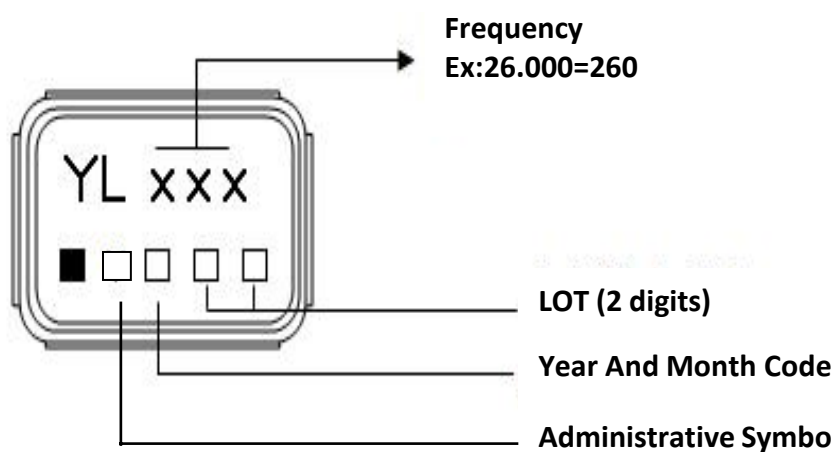


Notes:

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

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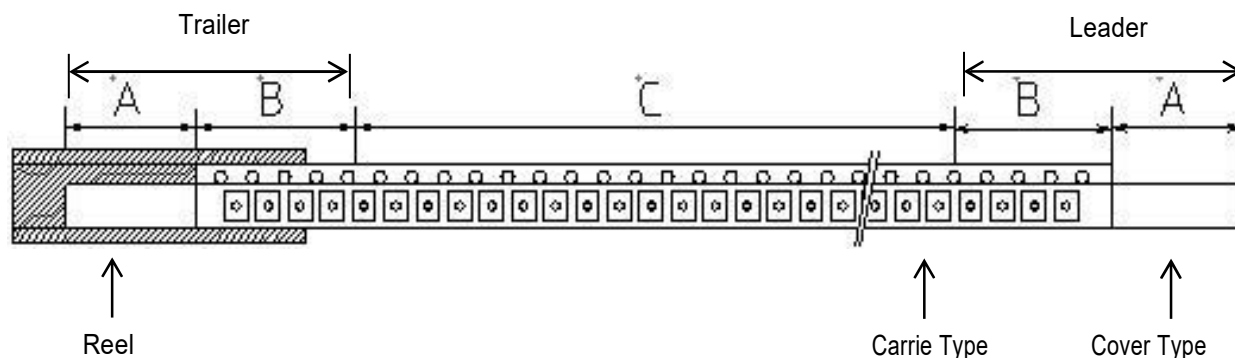
3. Marking Specification



month year		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
		A	B	C	D	E	F	G	H	J	K	L	M
2017	2021	N	P	Q	R	S	T	U	V	W	X	Y	Z
2018	2022	a	b	c	d	e	f	g	h	j	k	l	m
2019	2023	n	p	q	r	s	t	u	v	w	x	y	z
2020	2024												

4. Packing Specifications

Basic Taping Specification

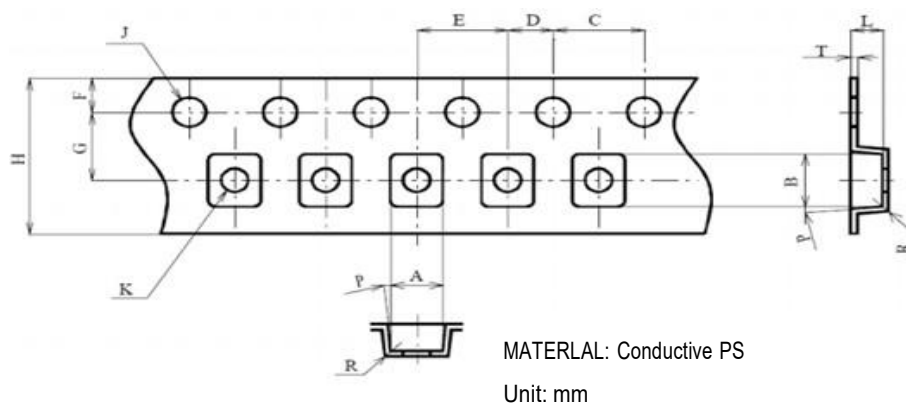


A	Cover tape only	200mm min.
B	Empty carrier tape	300mm min.
C	Component Section	

Notes:

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

Carrier Tape (8mm)



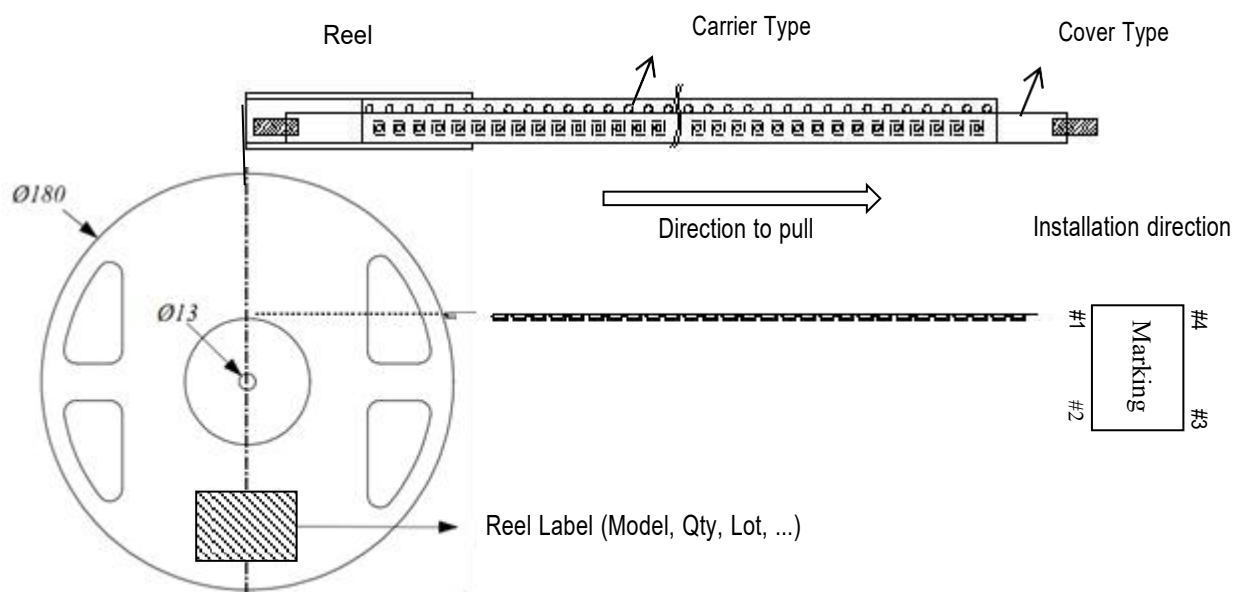
MATERIAL: Conductive PS

Unit: mm

Symbol	A	B	C	D	E	F	G
Dimension	2.3±0.1	2.7±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	Φ1.5+0.1/-0	Φ1.2±0.1	1.4±0.1	5° max.	0.3±0.05	R0.3 max.

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Reel Taping



Inner Bag / Inner Box / Outer Box



Inner Bag(1Reel)



HDPE(15 reels enter)



Outer Box(60Reel max.)

pocketful	Outer Box
45Kpcs	180Kpcs

Box Label



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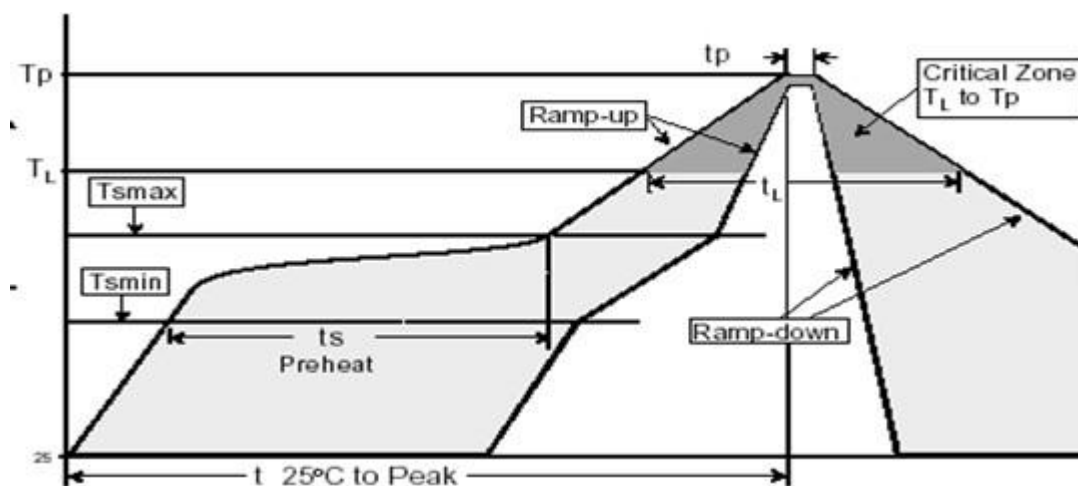
5. Reliability Specifications

	Test Item	Test Condition	Criteria
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	Drop	Preparation: Test pieces should be fixed on the dummy load with 120~150g weights Condition: Height 150cm onto Iron-plate Drop times: 3 times in 6 mutually perpendicular axes, 1 time random drop total 19 times Condition: Height 120cm onto Iron-plate Drop times: 2 times in 6 mutually perpendicular axes Total drop times: 31 times	±1.0ppm
3	High Temp. & Humidity Storage	85°C,85%RH 240Hr It shall be measured after 4Hr to 12Hr at room temperature & humidity	±1.0ppm
4	Thermal shock	-40°C/30min ↔ 85°C/30min, 100cycles It shall be measured after 4Hr to 12Hr at room temperature & humidity	±1.0ppm
5	Vibration	20~2000Hz, PSD 0.053g ² /Hz, X.Y.Z direction, 15min/direction	±1.0ppm
6	High Temp. Storage	125°C, 240Hr	±1.0ppm
7	Low Temp. Storage	-55°C, 240Hr	±1.0ppm
8	Solderability	Precondition: 105°C, 100%RH, 4Hr Condition: 235±5°C for 3±0.5sec, Solder Pot	90%
9	Solder Heat Resistance	260±5°C, 10±1sec, Solder Pot It shall be measured after 2Hr to 4Hr at room temperature & humidity	±1.0ppm
10	ESD(Electrostatic Discharge) Human Body Model	C = 100pF, V = ±1KV, R = 1.5kohm, 3times	±1.0ppm

*Storage conditions : 18 months

*Constant humidity : 40~70%

6. Recommended Reflow Profile



1	Preheat -Temp. Min (T _{min}) -Temp. Max (T _{max}) -Time (t _s)	150°C 200°C 60~180sec
2	Primary Heat -Temp. (T _L) -Time (t _L)	220°C 60~150sec
3	Peak -Temp. (T _p) -Time (t _p)	260°C 10sec max.