

# OT Type for PECL/LVDS Crystal Oscillator

**RoHS Compliant Standard**

## FEATURE

1. Typical 7.5 x 5.0 x 1.9mm 6 Pads Ceramic SMD package.
2. Tight symmetry (45 to 55%) available.
3. Low phase jitter.
4. Complementary output.
5. Grounded cover for reduced EMI.
6. Packing: Tape & Reel, 1000/3000 pcs per Reel, 1~99 pcs per Bulk/Tape.



Actual Size

## ORDERING INFORMATION

O	T	E	T	G	C	L	-	N	F	-	?
XO	Package (mm)	Supply Voltage (V)	Tri-State Function	Freq. Stability (ppm)	Temp. Range (°C)	Output Logic and Symmetry	Dash	Appearance*	Lead Free	Dash	Freq.(MHz)
	7.5x5	J: 2.5 E: 3.3	T: Input to Pin2 (std.) R: Input to Pin1 (case by case)	D: ± 25 G: ± 50 H: ±100	I: -10~+60 C: -20~+70 L: -40~+85	L: PECL/50±5% V: LVDS/50±5%		N:Normal	F:RoHS Compliant		xx.xxxxxx

### Ordering Example: OTETGCL-NF-156.250000 MHz

XO T-TYPE; V<sub>DD</sub>: 3.3V; Fixed-Freq. with Tri-State, input to Pin2; Freq. Stability: ±50ppm; Temp Range: -20°C to +70°C; PECL output, Symmetry: 50±5%; Normal Appearance; Lead Free; Freq. 156.250000MHz.

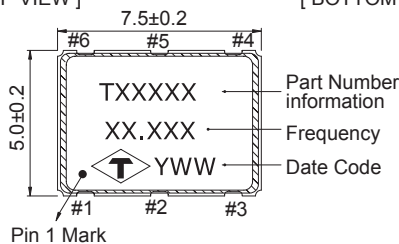
## FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	D:±25	G:±50	H:±100
I -10~ +60		△	○	○
C -20~ +70		△	○	○
L -40~ +85		x	○	○

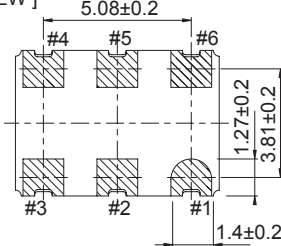
- :Standard    △:Available (case by case)
- ×:Not available

## OUTLINE DRAWING

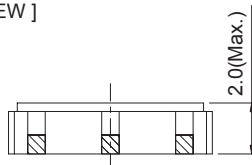
[ TOP VIEW ]



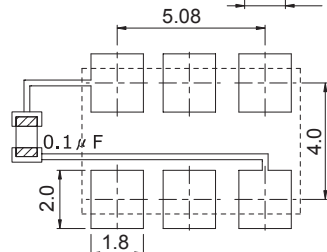
[ BOTTOM VIEW ]



[ SIDE VIEW ]



UNIT : mm



Recommended soldering pattern

Pin	Function
#1	NC / TRI-STATE
#2	TRI-STATE / NC
#3	GND
#4	OUTPUT
#5	COMP. OUTPUT
#6	V <sub>DD</sub>

Crystal Oscillator

## ELECTRICAL SPECIFICATION

Output Logic Parameter	PECL				LVDS				Unit
	Min.		Max.		Min.		Max.		
	3.3	2.5	3.3	2.5	3.3	2.5	3.3	2.5	V
Supply Voltage Variation(V <sub>DD</sub> ) 5%	3.135	2.375	3.465	2.625	3.135	2.375	3.465	2.625	V
Frequency Range	38.88		250		38.88		250		MHz
Standard Frequency	38.88、62.5、77.76、100、106.25、125、155.52、156.25、159.375、161.1328、164.355469、167.3316、187.5、212.5								MHz
Operating Temp. Range	Refer to Ordering Information								°C
Frequency Stability *	Refer to Ordering Information								ppm
Supply Current									
38.88MHz ≤ F <sub>o</sub> < 160MHz	—		75		—		50		mA
160MHz ≤ F <sub>o</sub> < 250MHz	—		100		—		50		
Output Level									
Output High (Logic "1")	2.275	1.475	—		—		1.6		V
Output Low (Logic "0")	—		1.68	1.095	0.9		—		
Transition Time: Rise/Fall Time*	—		1.0		—		1.0		nSec
Start Time	—		3		—		3		mSec
Tri-State (Input to Pin 2 or Pin 1)									
Output Active	2.5	2	—		2.5	2	—		V
Output in High Impedance State	—		0.5	0.5	—		0.5	0.5	
RMS Phase Jitter (Integrated 12KHz~20MHz)	—		1		—		1		pS
Storage Temp. Range	-55		125		-55		125		°C

\*Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging, shock, and vibration.

+Transition times are measured between 20% and 80% waveform.