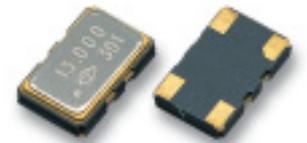


OE Type High Precision Crystal Oscillator

RoHS Compliant Standard

FEATURE

1. Typical 5.0 x 3.2 x 1.15mm ceramic SMD package.
2. ± 10 ppm over -20°C to $+70^{\circ}\text{C}$, ± 20 ppm over -40°C to $+85^{\circ}\text{C}$ Including 10years Aging.
3. Ideal for Wireless LAN Hot Spot applications at 40 MHz.
4. Tight Symmetry (45 to 55%) available.
5. Packing: Tape & Reel, 1000/2000/3000/5000 pcs per Reel.



Actual Size

ORDERING INFORMATION

O	E	E	T	C	L	J	-	N	F	-	?
XO	Package	Supply Voltage (V)	Tri-State Function	Freq. Stability (ppm)	Temp. Range($^{\circ}\text{C}$)	Output Logic and Symmetry	Dash	Appearance	Lead Free	Dash	Ferq. (MHz)
	5x3.2	C: 5 E: 2.8~3.3	T: Fixed-Freq. with Tri-State	B: ± 10 C: ± 20 (Including 10 years aging)	B: 0~+50 I: -10~+60 C: -20~+70 L: -40~+85	CMOS 15pF 50 \pm 5% J		N: Normal	F: RoHS Compliant		xx.xxxxxx

Ordering Example: OEETCLJ-NF-20.000000 MHz

XO E-TYPE; V_{DD} : 3.3V; Fixed-Freq. with Tri-State; Freq. Stability: ± 20 ppm; Temp Range: -40°C to $+85^{\circ}\text{C}$; Load: CMOS 15pF, Symmetry: 50 \pm 5%; Normal Appearance; RoHS Compliant; Freq. 20.000000MHz.

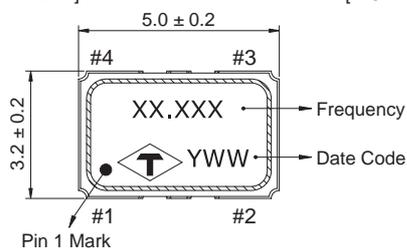
FREQ. STABILITY vs. TEMP. RANGE

Temp.($^{\circ}\text{C}$)	ppm	B: ± 10	C: ± 20
B	0 ~ +50	○	○
I	-10 ~ +60	○	○
C	-20 ~ +70	○	○
L	-40 ~ +85	X	○

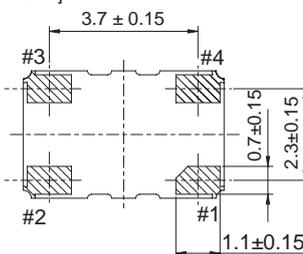
○: Standard X: Not available

OUTLINE DRAWING

[TOP VIEW]

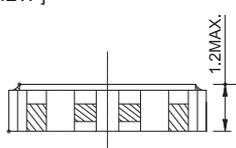


[BOTTOM VIEW]

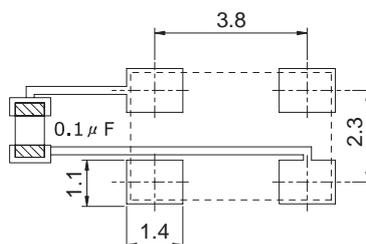


Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	V_{DD}

[SIDE VIEW]



UNIT : mm



Recommended soldering pattern

ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	3.3	5.0	3.3	V
Supply Voltage Variation(V_{DD}) 10%	4.5	2.97	5.5	3.63	V
Frequency Range	1.5		55		MHz
Operating Temp. Range	Refer to Ordering information				°C
Frequency Stability *	Refer to Ordering information				ppm
Supply Current					
1.5MHz ≤ F _o < 20MHz	—		15	10	mA
20MHz ≤ F _o < 40MHz	—		20	15	
40MHz ≤ F _o ≤ 55MHz	—		30	22	
Output Level (CMOS)					
Output High (Logic "1")	90% V _{DD}		—		V
Output Low (Logic "0")	—		10% V _{DD}		
Transition Time:Rise/Fall Time*	6				nSec
Start Time	8				mSec
Tri-State					
Output Active	4.0	2.0	—		V
Output in High Impedance State	—		0.8	0.5	
Absolute Clock Period Jitter	—		40		pSec
Standby Current	—		50		μA
Storage Temp. Range	-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 10% and 90% of V_{DD}, with an output load of 15pF.