

## Crystal Oscillators

## XO14



## Description:

- Stability up to  $\pm 10 \times 10^{-6}$
- Tri-State Enable/Disable
- TTL/HCMOS Compatible
- Wide Frequency Range
- 14PIN Full Size
- Military & Aerospace
- Research and Measurement
- Industrial
- Automotive

## Performance Characteristics

Parameter		Condition	XO14	
Frequency Range	$F_0$		0.252MHz~160.000MHz	
Frequency Stability		All Condition	See Next Table	
Operating Temperature Range	$T_{OPR}$		See Next Table	
Supply Voltage	$V_{DD}$		B: +5.0VDC $\pm 10\%$	A: +3.3VDC $\pm 10\%$
Supply Current	$I_{DD}$	$252K \leq F_0 < 24M$	20mA Max	15mA Max
		$24M \leq F_0 < 50M$	30mA Max	20mA Max
		$50M \leq F_0 < 160M$	40mA Max	30mA Max
Output Load			A: TTL 15pF C: CMOS 15pF B: TTL 50pF D: CMOS 50pF	
Stand-by Function (Tri-state)			N: Fixed-Frequency without Tri-State Y: Fixed-Frequency with Tri-State	
Output Duty		1.4V or $1/2V_{DD}$	45%~55%	
Rise Time	$T_r$	0.4V~2.4V	10nS Max	
		$10\%V_{DD} \sim 90\%V_{DD}$		
Fall Time	$T_f$	2.4V~0.4V	10nS Max	
		$90\%V_{DD} \sim 10\%V_{DD}$		
Output Level	"0"Level	$V_{OL}$	0.4V Max or $10\%V_{DD}$	
	"1"Level	$V_{OH}$	2.4V Min or $90\%V_{DD}$	
Start-Up Time	$T_s$		10mS Max	
Aging (First Year)	$F_a$	$25^\circ C \pm 3^\circ C$	$\pm 5 \times 10^{-6}$	
Storage Temperature Range	$T_{STG}$		$-55^\circ C \sim +125^\circ C$	
Package			DIP14	

## Frequency Stability Over Temperature Range

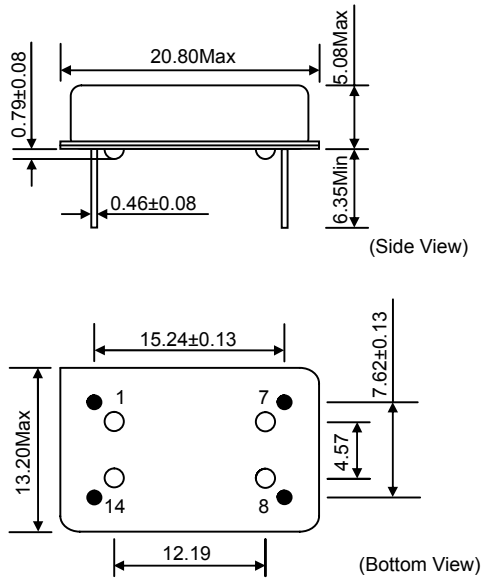
Temperature Range	Frequency Stability			
	O: $\pm 10 \times 10^{-6}$	R: $\pm 25 \times 10^{-6}$	T: $\pm 50 \times 10^{-6}$	U: $\pm 100 \times 10^{-6}$
A: $0^\circ C \sim +50^\circ C$	●	●	●	●
B: $-10^\circ C \sim +60^\circ C$	●	●	●	●
C: $-20^\circ C \sim +70^\circ C$	●	●	●	●
G: $-40^\circ C \sim +85^\circ C$		●	●	●
J: $-55^\circ C \sim +125^\circ C$			※	※

※: Specially designated products.

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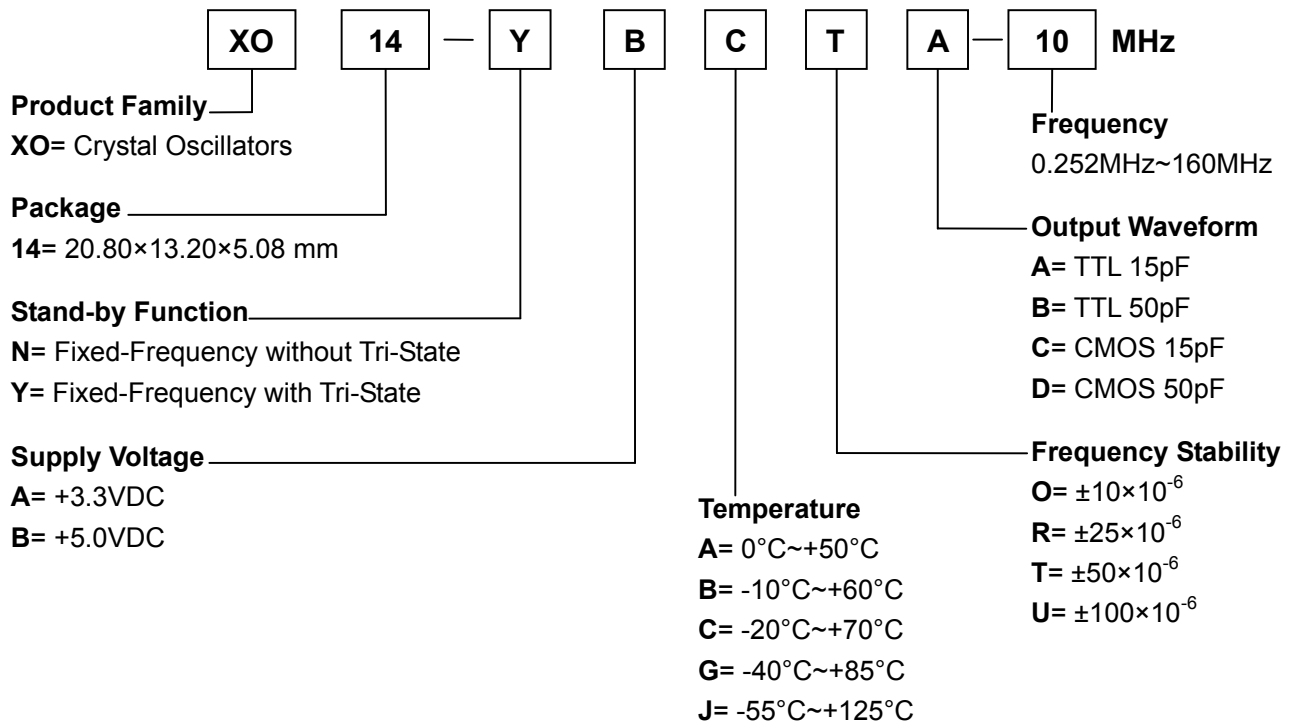
### XO14

#### Outline Drawing (mm)



PIN	FUNCTION
#1	NC/TRI-STATE
#7	GND
#8	OUTPUT
#14	+DC

#### Ordering Information



#### Ordering Example

##### XO14-YBCTA-10MHz

Crystal Oscillators / Fixed-Frequency with Tri-State / +5.0VDC / -20°C~+70°C /  $\pm 50 \times 10^{-6}$  / TTL 15pF / 10MHz