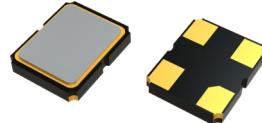


# FASTXO 2.0 x 1.6 mm SMD Crystal Oscillator

## Feature

- Typical 2.05 x 1.65 x 0.75 mm ceramic SMD package
- Operation supply voltage: 1.8V, 2.5V and 3.3V
- FASTXO series, Fast delivery at any frequency
- Tri-State Enable/Disable
- Frequency Stability ±25ppm over -40 °C to 85 °C
- RoHS compliant/Pb-free



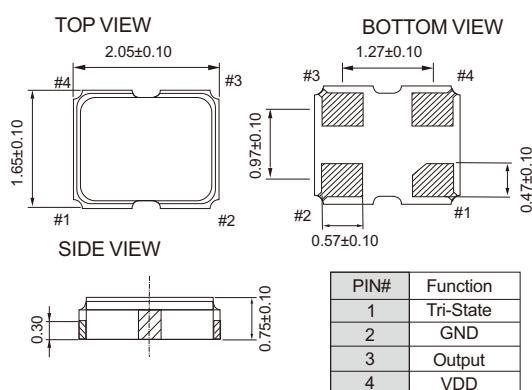
## Electrical Specifications

Parameter	3.3V		2.5V		1.8V		Unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V
Frequency Range	1	200	1	200	1	125	MHz
Supply Current	-	30	-	28	-	20	mA
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS)	Out High(Logic "1")	2.97	-	2.25	-	1.62	-
	Out Low(Logic "0")		0.33	-	0.25		0.18
Start Time	-	8	-	8	-	8	mSec
Transition Time :Rise/Fall Time	-	2	-	2	-	3	nSec
Tri-State	Output Enable	2.31	-	1.75	-	1.26	-
	Output Disable	-	0.99	-	0.75	-	0.54
Stand by current(@PD mode)	-	400	-	400	-	400	uA
Stand by current(@OE mode)	-	20	-	20	-	20	mA
Output Loading	15		15		15		
RMS Phase Jitter(12KHz to 20MHz)@3.3V	-	1	-	1	-	1	pSec
Aging(@25 1st year)	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	°C

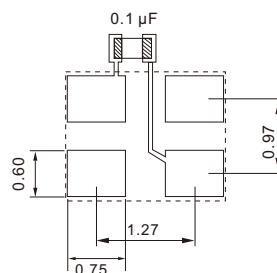
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

## Dimension(mm)



## Solder Pad Layout(mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 μF as close to the part as possible between Vdd and GND pads.

## FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C) \ ppm	±15	±20	±25	±50
-20 ~ +70	o	o	o	o
-40 ~ +85	x	△	o	o
-40 ~ +105	x	x	△	o

o: Available △: Conditional X: Not available

Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration