

# PV-U Type Frequency up to 200MHz

## FASTXO 5.0 x 3.2 mm SMD Crystal Oscillator

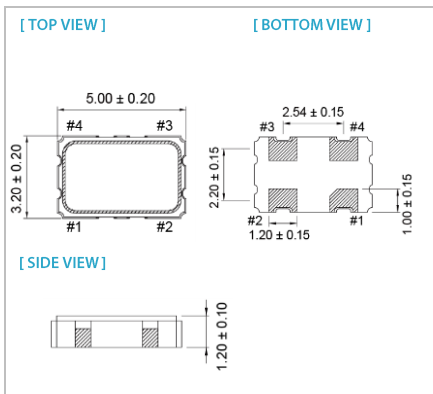
### FEATURES

- Typical 5.0 x 3.2 x 1.2mm Ceramic SMD Package
- Operation Supply Voltage: 1.8V, 2.5V, 3.3V
- FASTXO Series, Fast Delivery at Any Frequency
- Frequency Stability  $\pm 20$ ppm over  $-40^{\circ}\text{C}$  to  $105^{\circ}\text{C}$
- Tri-State Enable/Disable
- Pb-free/RoHS Compliant

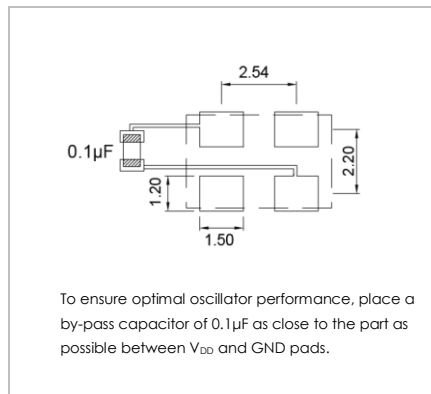
### TYPICAL APPLICATION

- GPS, Mobile Phone
- WLAN, Wireless, Fiber/10Gbit Ethernet
- Netbook, PDA, DSC

### DIMENSION (mm)

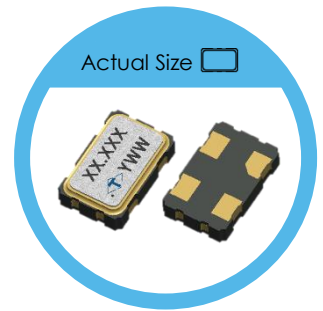


### SOLDER PAD LAYOUT (mm)



### PIN FUNCTION (mm)

PIN#	FUNCTION
1	Tri-State
2	GND
3	Output
4	V <sub>DD</sub>



RoHS Compliant

### ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit	Test Condition	
	Min.	Max.	Min.	Max.	Min.	Max.			
Supply Voltage Variation (V <sub>DD</sub> )	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		
V <sub>DD</sub> Sensitivity ( $\pm 5\%$ )	-2	2	-2	2	-2	2	ppm		
Supply Current (@15pf Loading)	1 MHz $\leq$ Fo < 30 MHz	27	27	27	25	25	mA		
	30 MHz $\leq$ Fo < 75 MHz	27	27	27	25	25	mA		
	75 MHz $\leq$ Fo < 125 MHz	30	30	30	25	25	mA		
	125 MHz $\leq$ Fo < 170 MHz	35	35	35			mA		
	170 MHz $\leq$ Fo $\leq$ 200 MHz	40	40	35	35		mA		
Output Level	Output High	90% V <sub>DD</sub>	90% V <sub>DD</sub>	90% V <sub>DD</sub>	90% V <sub>DD</sub>	90% V <sub>DD</sub>	V		
	Output Low	10% V <sub>DD</sub>	10% V <sub>DD</sub>	10% V <sub>DD</sub>	10% V <sub>DD</sub>	10% V <sub>DD</sub>	V		
Transition Time: Rise/Fall Time	1 MHz $\leq$ Fo < 10 MHz	3	4	4	4	4	nSec		
	10 MHz $\leq$ Fo < 125 MHz	2	3	3	3	3	nSec		
	125 MHz $\leq$ Fo < 200 MHz	2	2	2	2	2	nSec		
Duty Cycle	45	55	45	55	45	55	%		
Startup Time		8		8		8	mSec		
Tri-State	Output Enable	0.7 x V <sub>DD</sub>	0.7 x V <sub>DD</sub>	0.7 x V <sub>DD</sub>	0.7 x V <sub>DD</sub>	0.7 x V <sub>DD</sub>	V		
	Output Disable	0.3 x V <sub>DD</sub>	0.3 x V <sub>DD</sub>	0.3 x V <sub>DD</sub>	0.3 x V <sub>DD</sub>	0.3 x V <sub>DD</sub>	V		
RMS Phase Jitter (offset 12 kHz~20 MHz @ 50MHz)	Integer Mode	1.5	1.5	1.5	1.5	1.5	pSec		
	Fractional Mode	2.0	2.0	2.0	2.0	2.0	pSec		
Stand by Current (@PD Mode)		400		400		400	$\mu$ A		
Stand by Current (@OE Mode)		25		25		25	mA		
Output Loading		15		15		15	pf		
Aging (@25°C, 1 <sup>st</sup> year)		$\pm 3$		$\pm 3$		$\pm 3$	ppm		
Storage Temp. Range		-55		+125		-55	+125	$^{\circ}\text{C}$	

### FREQ. STABILITY vs. TEMP. RANGE

Temp.( $^{\circ}\text{C}$ )	ppm	$\pm 15$	$\pm 20$	$\pm 25$	$\pm 50$
	-20 ~ +70		$\Delta$	$\circ$	$\circ$
-40 ~ +85		X	$\Delta$	$\circ$	$\circ$
-40 ~ +105		X	$\Delta$	$\circ$	$\circ$
-40 ~ +125		X	X	X	$\circ$

$\circ$ : Available  $\Delta$ :Conditional X: Not Available  
 Inclusive of calibration @ 25°C ,operating temperature range,input Voltage variation,load variation,aging (1<sup>st</sup> year),shock,and vibration

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.