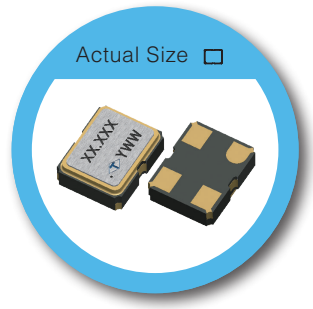
PY-U Type Crystal Oscillator

FASTXO 2.5 x 2.0 mm SMD XO Frequency up to 200MHz



RoHS Compliant

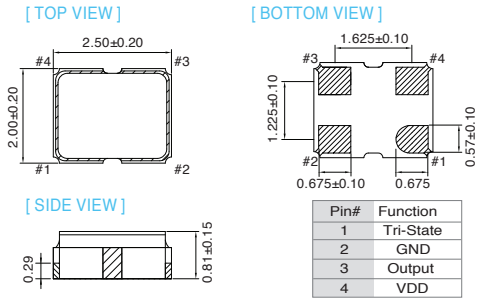
FEATURE

- Typical 2.5 x 2.0 x 0.81 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 ±20ppm over -40°C to 105°C
- Pb-free/RoHS compliant

TYPICAL APPLICATION

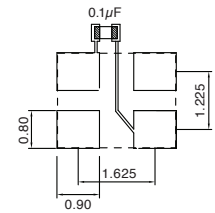
- Computer Peripherals
- Set-top Box , HDTV
- DSC, PDA

DIMENSION (mm)



Pin#	Function
1	Tri-State
2	GND
3	Output
4	VDD

SOLDER PAD LAYOUT (mm)



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

ELECTRICAL SPECIFICATION

Parameter		3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		V_{DD}-5%	V_{DD}+5%	V_{DD}-5%	V_{DD}+5%	V_{DD}-5%	V_{DD}+5%	V
Frequency Range		1	200	1	200	1	125	MHz
V_{DD} Sensitivity (±5%)		-2	2	-2	2	-2	2	ppm
Supply Current (@15pf Loading)	1MHz ≦ Fo < 30MHz	-	22	-	22	-	20	mA
	30MHz ≦ Fo < 75MHz	-	22	-	22	-	20	
	75MHz ≦ Fo < 125MHz	-	25	-	25	-	20	
	125MHz ≦ Fo < 170MHz	-	30	-	30	-	-	
	170MHz ≦ Fo ≦ 200MHz	-	35	-	30	-	-	
Output Level	Output High	90% V_{DD}	-	90% V_{DD}	-	90% V_{DD}	-	V
	Output Low	-	10%V_{DD}	-	10%V_{DD}	-	10%V_{DD}	V
Transition Time Rise Time / Fall Time	1MHz ≦ Fo < 10MHz	-	3	-	4	-	4	nSec
	10MHz ≦ Fo < 125MHz	-	2	-	3	-	3	
	125MHz ≦ Fo < 200MHz	-	2	-	2	-	-	
Duty Cycle		45	55	45	55	45	55	%
Startup Time		-	5	-	5	-	5	mSec
Tri-State	Output Enable	0.7 x V_{DD}	-	0.7 x V_{DD}	-	0.7 x V_{DD}	-	V
	Output Disable	-	0.3 x V_{DD}	-	0.3 x V_{DD}	-	0.3 x V_{DD}	
Stand by Current (@PD Mode)		-	400	-	400	-	400	uA
Stand by Current (@OE Mode)		-	20	-	20	-	20	mA
Output Loading		15		15		15		pf
RMS Phase Jitter offset 12kHz to 20MHz @50MHz	Integer Mode	-	1.5	-	1.5	-	1.5	pSec
	Fractional Mode	-	2.0	-	2.0		2.0	
Aging (@ 25°C, First Year)			±3		±3		±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	°C

FREQ. STABILITY vs. TEMP. RANGE

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

*O: Available △: Conditional X: Not available
*Inclusive of calibration @ 25 °C ,operating temperature rrange,input Voltage variation,load variation,aging (1st year),shock,and vibration

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