

PY-U Type Crystal Oscillator

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

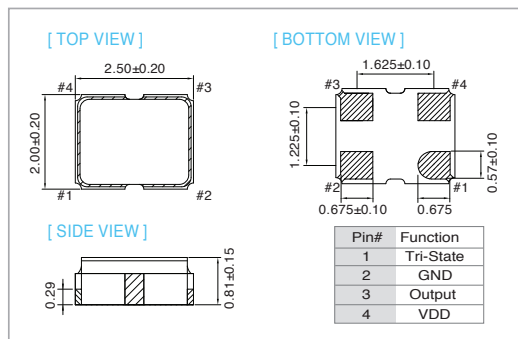
FEATURE

- 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 $\pm 20\text{ppm}$ over -40°C to 105°C
- Pb-free/RoHS compliant

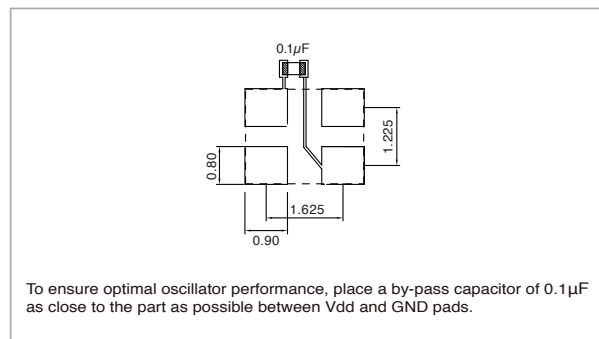
TYPICAL APPLICATION

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

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



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 ≤ F _o < 30MHz	-	27	-	27	-	25	mA
	30MHz ≤ F _o < 75MHz	-	27	-	27	-	25	
	75MHz ≤ F _o < 125MHz	-	30	-	30	-	25	
	125MHz ≤ F _o < 170MHz	-	35	-	35	-	-	
	170MHz ≤ F _o ≤ 200MHz	-	40	-	35	-	-	
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	1MHz ≤ F _o < 10MHz	-	3	-	4	-	4	nSec
Rise Time / Fall Time	10MHz ≤ F _o < 125MHz	-	2	-	3	-	3	
	125MHz ≤ F _o < 200MHz	-	2	-	2	-	-	
Duty Cycle		45	55	45	55	45	55	%
Startup Time		-	8	-	8	-	8	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)	± 15	± 20	± 25	± 50
-20~+70	Δ	$\circ$	$\circ$	$\circ$
-40~+85	$\times$	Δ	$\circ$	$\circ$
-40~+105	$\times$	Δ	$\circ$	$\circ$

*O: Available Δ : Conditional X: Not available

*Inclusive of calibration @ 25°C, operating temperature range, 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.