



### Features and Benefits

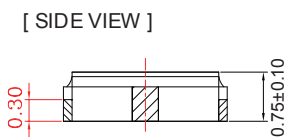
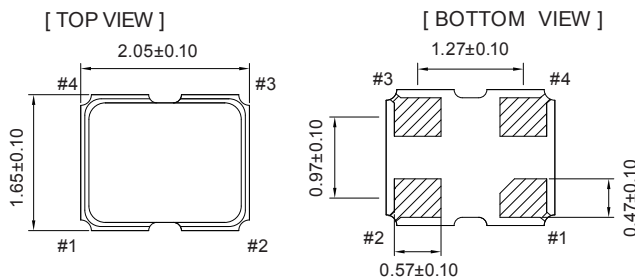
- Typical 2.05 x 1.65 x 0.75 mm ceramic SMD package
- Operation supply voltage: 1.8V, 2.5V and 3.3V
- FASTXO series, Fast delivery at any frequency
- Tri-State Enable/Disable
- Frequency Stability  $\pm 25$ ppm over  $-40^{\circ}\text{C}$  to  $105^{\circ}\text{C}$
- Pb-free/RoHS compliant

### Typical Applications

- Wearable device
- Mobile device
- IoT, Smartphone
- Game console

### Mechanical Drawing & Pin Connections

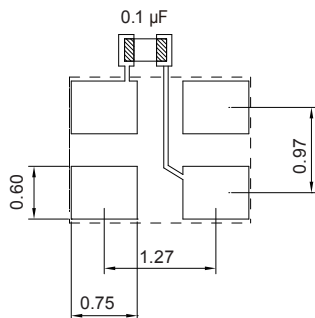
Drawing No: MD200036-1



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

Unit in mm  
1mm = 0.0394 inches

#### Solder PAD Layout



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 $\mu\text{F}$  as close to the part as possible between Vdd and GND pads.



**Specifications**

Specification	Condition	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	15pF Loading	-	35	-	30	-	20	mA
Stand by Current	OE mode	-	20	-	20	-	20	mA
Output Load		15						pF
Output Level	Output High	0.9 V <sub>DD</sub>	-	0.9 V <sub>DD</sub>	-	0.9 V <sub>DD</sub>	-	V
	Output Low	-	0.1 V <sub>DD</sub>	-	0.1 V <sub>DD</sub>	-	0.1 V <sub>DD</sub>	
Transition	Rise/Fall Time	-	2	-	2	-	3	nSec
Duty Cycle		45	55	44	45	45	55	%
Start Time		-	8	-	8	-	8	mSec
Tri-State	Enable	0.7 V <sub>DD</sub>	-	0.7 V <sub>DD</sub>	-	0.7 V <sub>DD</sub>	-	V
	Disable	-	0.3 V <sub>DD</sub>	-	0.3 V <sub>DD</sub>	-	0.3 V <sub>DD</sub>	
RMS Phase Jitter	12KHz to 20MHz	-	1.5	-	1.5	-	1.5	pSec
Aging	@25°C 1 <sup>st</sup> year	-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55°C to +125°C						°C

Note: \*Transition times are measured between 10% and 90% of V<sub>DD</sub> with an output load of 15pF

**Frequency Stability vs. Temperature**

	±15PPM	±20PPM	±25PPM	±50PPM
-20°C to +70°C	Conditional	Available	Available	Available
-40°C to +85°C	Not Available	Conditional	Available	Available
-40°C to +105°C	Not Available	Not Available	Conditional	Available

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