

FASTXO SMD XO Frequency up to 200MHz
Series:CPPYX

MSL:1
FEATURE

- Programmed in the field with the PG-3200 oscillator programming
- Operation supply voltage: 1.8V, 2.5V and 3.3V
- FASTXO series, fast delivery at any frequency
- Tri-State Enable/Disable
- Frequency Stability ± 25 ppm over -40°C to 85°C
- Pb-free/RoHS compliant

TYPICAL APPLICATION

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

Part Numbering Example:

SERIES	OUTPUT	PACKAGE STYLE	VOLTAGE	ADDED FEATURES	OPERATING TEMP.	STABILITY	FREQUENCY	TRI-STATE
CPPYX	C	5	L	Z	A5	B6	XXX.XXXX	TS
CPPYX	C=CMOS	2=2X1.6 Ceramic 3=3.2X2.5 Ceramic 5=5X3.2 Ceramic 7=5X7 Ceramic 25=2.5X2.0 Ceramic	L=3.3V J=2.5V K=1.8V	Blank=Bulk Z=Tape and Reel	Blank= $0^{\circ}\text{C} \sim +70^{\circ}\text{C}$ A5 = $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$ A7 = $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ AJ = $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$	B6= ± 100 ppm BP= ± 50 ppm BR= ± 25 ppm BD= ± 20 ppm	1.000~200.000MHz	TS=Tri-State PD=PowerDwn

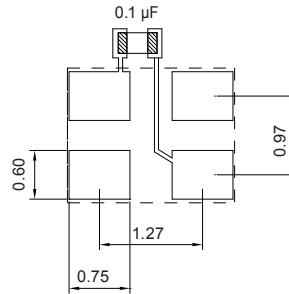
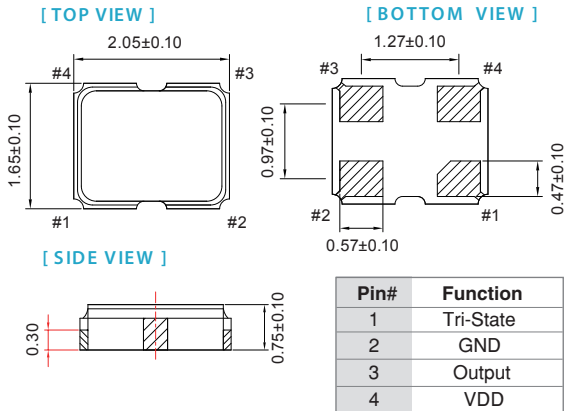
ELECTRICAL SPECIFICATION

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	
Supply Current (@15pf Loading)	-	35	-	28	-	20	mA	
Output Level	Output High	$90\%V_{DD}$	-	$90\%V_{DD}$	-	$90\%V_{DD}$	V	
	Output Low	-	$10\%V_{DD}$	-	$10\%V_{DD}$	-	$10\%V_{DD}$	
Transition Time	Rise Time / Fall Time		-	2	-	2	3	nSec
Duty Cycle	45	55	45	55	45	55	%	
Startup Time	-	5	-	5	-	5	mSec	
Tri-State	Output Enable	$0.7 \times V_{DD}$	-	$0.7 \times V_{DD}$	-	$0.7 \times V_{DD}$	V	
	Output Disable	-	$0.3 \times V_{DD}$	-	$0.3 \times V_{DD}$	-	$0.3 \times V_{DD}$	
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 (12KHz to 20MHz) @3.3V	-	1	-	1	-	1.5	pSec	
Aging (@ 25°C, First Year)	-	± 3	-	± 3	-	± 3	ppm	
Storage Temp. Range	-50	+125	-50	+125	-50	+125	$^{\circ}\text{C}$	

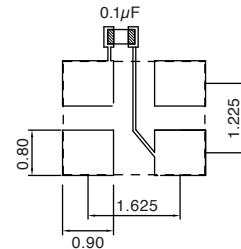
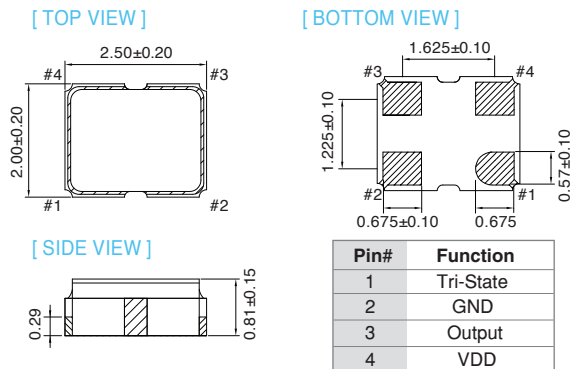
FREQ. STABILITY vs. TEMP. RANGE

$^{\circ}\text{C}$	ppm			
	± 15	± 20	± 25	± 50
-20~+70	○	○	○	○
-40~+85	×	△	○	○
-40~+105	×	△	○	○

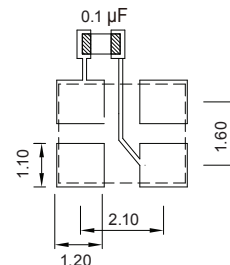
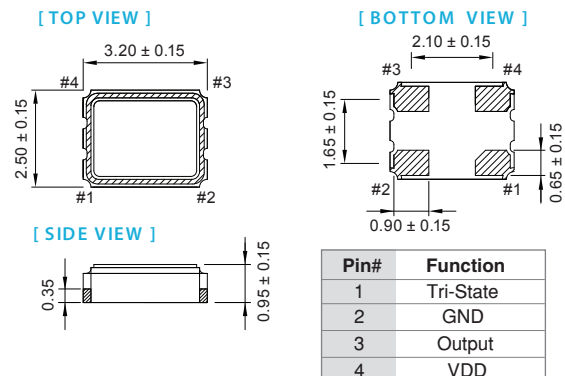
*○:Available △:Conditional X: Not available
 *Inclusive of calibration @ 25°C, operating temperature range, input Voltage variation, load variation, aging(1st year), shock, and vibration

Typical 2.05 x 1.65 x 0.75 mm ceramic SMD package


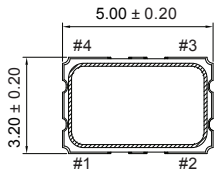
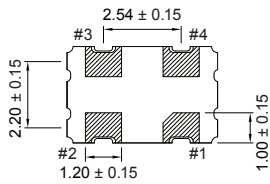
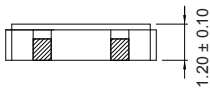
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

Typical 2.5 x 2.0 x 0.81 mm ceramic SMD package


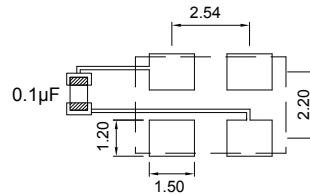
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

Typical 3.2 x 2.5 x 0.95 mm ceramic SMD package


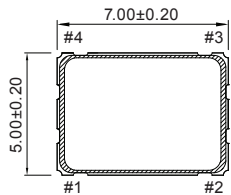
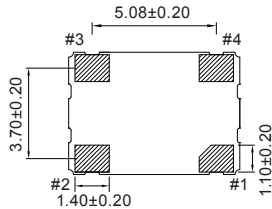
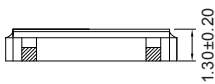
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

Typical 5.0 x 3.2 x 1.2 mm ceramic SMD package
[TOP VIEW]

[BOTTOM VIEW]

[SIDE VIEW]


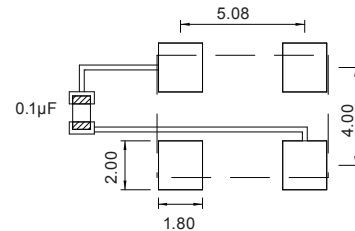
Pin#	Function
1	Tri-State
2	GND
3	Output
4	VDD



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.

Typical 7.0 x 5.0 x 1.3 mm ceramic SMD package
[TOP VIEW]

[BOTTOM VIEW]

[SIDE VIEW]


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



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.