VFXO200
XO – Ultra Low Power
3.2x2.5mm SMD, CMOS

Valpey Fisher Corporation
High Frequency, Low Phase Noise Timing Solutions

Features

- 0.8MHz to 110MHz Frequency Range
- 3.3V, 2.5V, or 1.8V Supply Voltage
- Tight symmetry
- Low jitter
- Low power consumption

RoHS Status

RoHS 6/6

Applications

- Portable Communications
- Test & Measurement
- Gigabit Ethernet

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F	3.3V 2.5V 1.8V	0.8		110 90 75	MHz	Consult Factory for Standard Frequencies
Frequency Stability	ΔF/F	Over all conditions of :- Operating Temperature; Supply Voltage; 1 Year Aging; shock & vibration			± 100 ± 50 ± 25 ± 20	ppm	*Order Code A* *Order Code B* *Order Code C* *Order Code D*
Operating Temperature	T		-10° -20° -40°		+60° +70° +85°	°C	*Order Code C* *Order Code D* *Order Code G*
Output			CMOS 15pF				
Supply Voltage	Vcc		2.97 2.25 1.62	3.30 2.50 1.80	3.63 2.75 1.98	V	*Order Code E* *Order Code G* *Order Code H*
Supply Current	Icc MAX		**3.3V** 10 15 15 20 25	**2.5V** 8 10 10 15 -	**1.8V** 6 7 10 - -	mA	Max Current across entire temp range
		0.8MHz ≤ Fo < 20MHz 20MHz ≤ Fo < 40MHz 40MHz ≤ Fo < 80MHz 80MHz ≤ Fo < 90MHz 90MHz < Fo					
TRISTATE		Output Active Output in High Imp. State	0.7		 0.3	V	

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Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Duty Cycle			45	50	55	%	
Rise / Fall Time	Tr/Tf	10% to 90% of V_{DD}			5.0	ns	
Logic "1" Level	Voh		90% V_{DD}		-	V	
Logic "0" Level	Vol		-		10% V_{DD}	V	
Start up time					8	ms	
RMS Jitter	1σ	12KHz to 20MHz			20	ps	
Storage Temperature	Ts		-55		+125°	°C	

How to Order

VFXO200 — □□□ — FREQUENCY, MHz

Frequency Stability

Code	Output
A	±100ppm
B	± 50ppm
C	± 25ppm
D	± 20ppm

Temp. Range

Code	Output
C	-10°C ~ 60°C
D	-20°C ~70°C
G	-40°C ~ 85°C

Supply Voltage

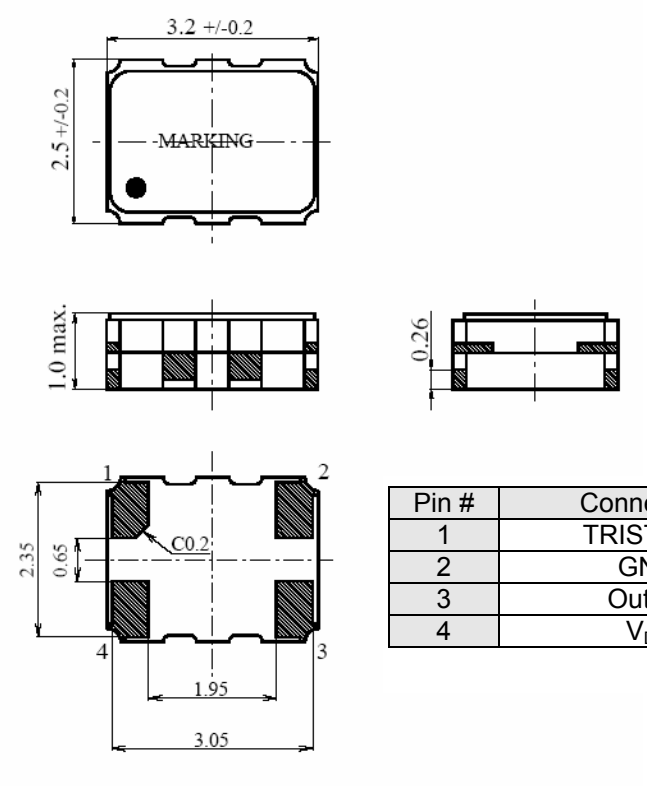
Code	Output
E	3.3V
G	2.5V
H	1.8V

Available Frequency Stabilities over Operating Temperature Ranges

Code	Temperature Range	±100ppm	±50ppm	±25ppm	±20ppm
C	-10°C to 60°C	*	*	*	*
D	-20°C to 70°C	*	*	*	*
G	-40°C to 85°C	*	*	*	

Environmental and Mechanical

Parameter	Specification
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than $5x10^{-8}$ atm.cc/s of helium



Pin #	Connection
1	TRISTATE
2	GND
3	Output
4	V_{DD}