

VFXO250

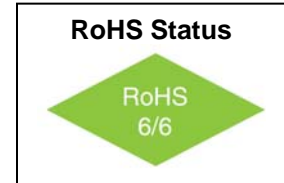
XO – Ultra Small and Low Power

2.5 x 2.0 mm SMD, CMOS



Features

- 1MHz to 50MHz Frequency Range
- 3.3V, 2.5V, or 1.8V Supply Voltage
- Tight symmetry
- Low Jitter
- Low power consumption



Applications

- Portable Communications
- Test & Measurement
- Gigabit Ethernet

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		1		50	MHz	Other frequencies will be evaluated on a case by case basis
		Standard Frequencies	24, 26, 40				
Frequency Stability	$\Delta F/F$	Over all conditions of :- Operating Temperature; Supply Voltage; 1 Year Aging; shock & vibration			± 50 ± 25 ± 20	ppm	Order Code B Order Code C Order Code D
		Aging			± 3		1 st year
Operating Temperature	T		-10° -20° -40°		+60° +70° +85°	°C	Order Code C Order Code D Order Code G
Output			CMOS 15pF				
Supply Voltage	V _{DD}		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	I _{cc} Max		3.3V	2.5V	1.8V	mA	Max current across entire temp range
			15	10	7		
Duty Cycle			45	50	55	%	
RMS Jitter	T _j	12KHz to 20MHz			<1	ps	



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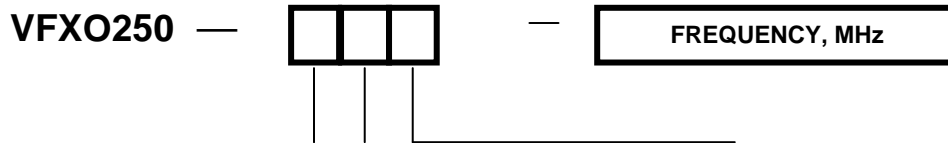
2.5 x 2.0 mm SMD, CMOS



Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Rise / Fall Time	Tr/Tf	1MHz ≤ Fo < 20MHz 20MHz ≤ Fo < 50MHz	3.3V	2.5V	1.8V		
			3 2	4 3	5 4	ns	
Logic "1" Level	Voh		90%		-	V _{DD}	
Logic "0" Level	Vol		-		10%	V _{DD}	
Start up time					2	ms	
TRISTATE		Output Active or Enable Output in High Impedance State (Disable)	0.7 V _{DD}		0.3 V _{DD}	V	

How to Order



Frequency Stability	
Code	Output
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	±50ppm	±25ppm	±20ppm
C	-10°C to 60°C	*	*	*
D	-20°C to 70°C	*	*	o
G	-40°C to 85°C	*	o	

o Case by case



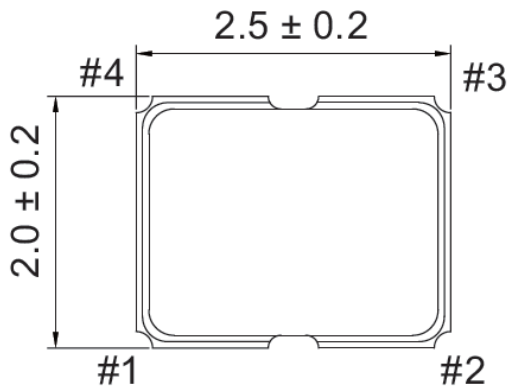
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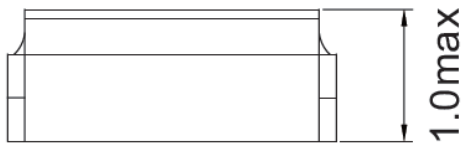
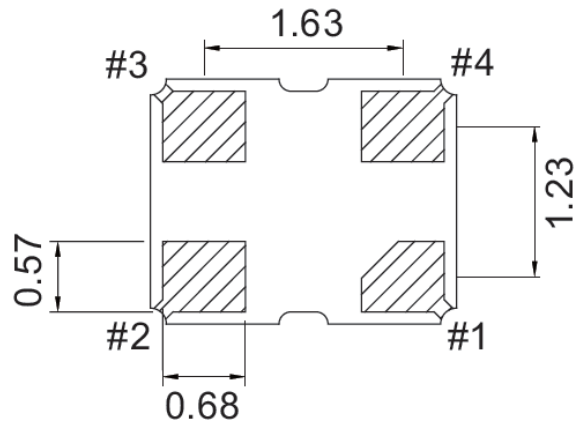
Environmental and Mechanical

Parameter	Specification
Storage Temperature	-55°C to +125°C
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 5×10^{-8} atm.cc/s of helium

Top View



Bottom View



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

