

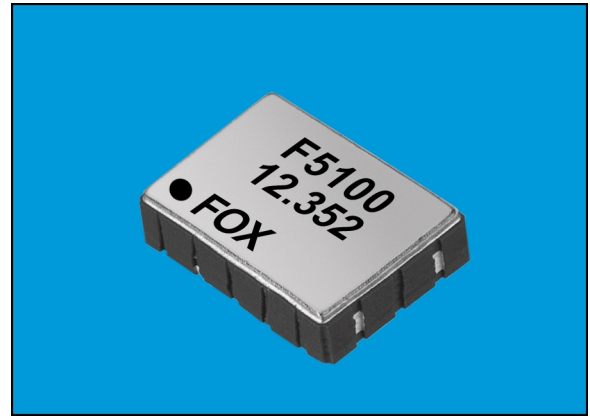
VCXO 3.3V SMD / VOLTAGE CONTROLLED CRYSTAL OSCILLATOR

F5100

The F5100 is similar to the F5000 VCXO except the supply voltage is 3.3 Volts. This package also gives the frequency control features of a VCXO in a smaller, ceramic surface mount package. Frequency can be pulled up to ± 80 PPM by varying a control voltage of 1.65 V applied to pin 1 by up to ± 1.5 V.

FEATURES

- 3.3V Operation
- HCMOS/TTL Output
- Pullability
- Smaller Package than Traditional, Thru-Hole VCXO's
- Low Power Consumption
- Tri-State Enable/Disable
- -40 ~ +85°C Option (F5100R)



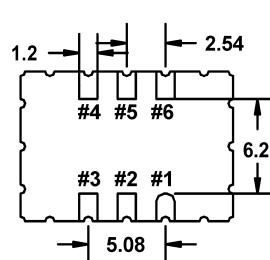
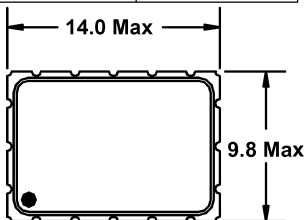
• ELECTRICAL CHARACTERISTICS (V_{DD} = 3.3V, C_L = 15pF)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MIN	MAX	UNITS
Frequency Range (Fo)			2.000	30.000	MHz
Frequency Stability	2.000 ~ 30.000	All Conditions *	-50	+50	PPM
Temperature Range					
Operating (TOPR)			-10	+70	°C
Storage (TSTG)			-30	+85	
Supply Voltage (V _{DD})			+3.0	+3.6	V
Control Voltage (V _c)			+0.15	+3.15	V
Pullability	2.000 ~ 30.000	V _c = 1.65 $\pm$ 1.5V	± 80		PPM
Input Current (I _{DD})	2.000 ~ 30.000			20	mA
Output Symmetry	2.000 ~ 30.000	1.65V	40	60	%
Rise Time (T _r)	2.000 ~ 30.000	0.33V ~ 2.97V		10	nS
Fall Time (T _f)	2.000 ~ 30.000	2.97V ~ 0.33V		10	
Output Voltage (V _{OL})	2.000 ~ 30.000	I _{OL} = 3.2 mA		0.33	V
(V _{OH})		I _{OH} = -0.1 mA	2.97		
Output Current (I _{OL})	2.000 ~ 30.000	V _{OL} = 0.33V		3.2	mA
(I _{OH})		V _{OH} = 2.97V		-0.1	
Output Load	2.000 ~ 30.000	HCMOS Load		15	pF
Start-up Time (T _s)	2.000 ~ 30.000			10	mS
Enable/Disable Time **	2.000 ~ 30.000			100	nS
Phase Noise	2.000 ~ 30.000	Fo +1 kHz Fo + 10 kHz	-125 -130		dBc/Hz
Frequency	2.000 ~ 30.000				
Stability vs Voltage			-3.0	+3.0	PPM
Linearity			-10	+10	%
Modulation Bandwidth	2.000 ~ 30.000		20		kHz

• ENABLE/DISABLE FUNCTION **

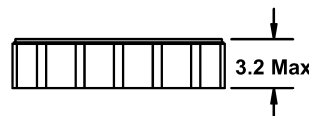
INH (Pin 2)	OUTPUT (Pin 4)
OPEN ***	ACTIVE
'1' Level V _{IH} $\geq$ 2.2 V	ACTIVE
'0' Level V _{IL} $\leq$ 0.80 V	High Z

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, and V_c = 1.65V.
 *** An internal pullup resistor from Pin 2 to Pin 6 allows active output if Pin 2 is left open.
 All specifications subject to change without notice. Rev. 03/02/00

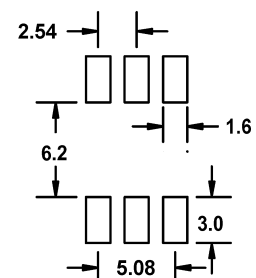


Pin Connections

- #1 V_c
- #2 E/D or NC
- #3 GND
- #4 Output
- #5 NC
- #6 V_{DD}



Recommended Solder Pad Layout



All dimensions are in millimeters.
 See page 74 for tape and reel specifications.