

# HCMOS 3.2x2.5mm 1.8V SMD Oscillator



Model: F310 Series

RoHS Compliant / Pb Free

Rev. 5/2/2013

Page 1 of 2

[http://www.foxonline.com/need\\_a\\_sample.htm](http://www.foxonline.com/need_a_sample.htm)



## FEATURES

- 1.8V Operation
- HCMOS Output
- Low Power Consumption
- Standby Function
- Tape and Reel (2,000 pcs. STD)

## PRELIMINARY

### • PART NUMBER SELECTION [Learn More - Internet Required](#)

Part Number	Model Number	Frequency Stability <sup>1</sup>	Operating Temperature (°C)	Frequency Range (MHz)
665-Frequency-xxxxx	F310	±100 PPM	-10 ~ +70	1.8432 ~ 50.000
676-Frequency-xxxxx	F310R	±100 PPM	-40 ~ +85	1.8432 ~ 50.000
667-Frequency-xxxxx	F315	±50 PPM	-10 ~ +70	1.8432 ~ 50.000
758-Frequency-xxxxx	F315R	±50 PPM	-40 ~ +85	1.8432 ~ 50.000
668-Frequency-xxxxx	F316	±25 PPM	-10 ~ +70	1.8432 ~ 50.000
759-Frequency-xxxxx	F316R	±25 PPM*	-40 ~ +85	1.8432 ~ 50.000

### • ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	1.8432 ~ 50.000 MHz
Temperature Range (T <sub>STG</sub> )	-55°C ~ +125°C
Supply Voltage (V <sub>DD</sub> )	1.8V ± 5%
Input Current (I <sub>DD</sub> )	
1.8432 ~ 32.100 MHz	7mA
32.100+ ~ 50.000 MHz	15mA
Output Symmetry (50% V <sub>DD</sub> )	40% ~ 60%
Rise Time (20% ~ 80% V <sub>DD</sub> ) (T <sub>R</sub> )	
1.8432 ~ 32.100 MHz	5nS
32.100+ ~ 50.000 MHz	3.5nS
Fall Time (80% ~ 20% V <sub>DD</sub> ) (T <sub>F</sub> )	
1.8432 ~ 32.100 MHz	5nS
32.100+ ~ 50.000 MHz	3.5nS
Output Voltage (V <sub>OL</sub> )	20% V <sub>DD</sub>
(V <sub>OH</sub> )	80% V <sub>DD</sub> Min
Output Current (I <sub>OL</sub> )	2mA Min
(I <sub>OH</sub> )	-2mA Min
Output Load (HCMOS)	15pF
Standby Current	10µA
Start-up Time (T <sub>s</sub> )	10mS
Output Disable Time <sup>2</sup>	300nS
Output Enable Time <sup>2</sup>	10mS
Maximum Soldering Temp/Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au

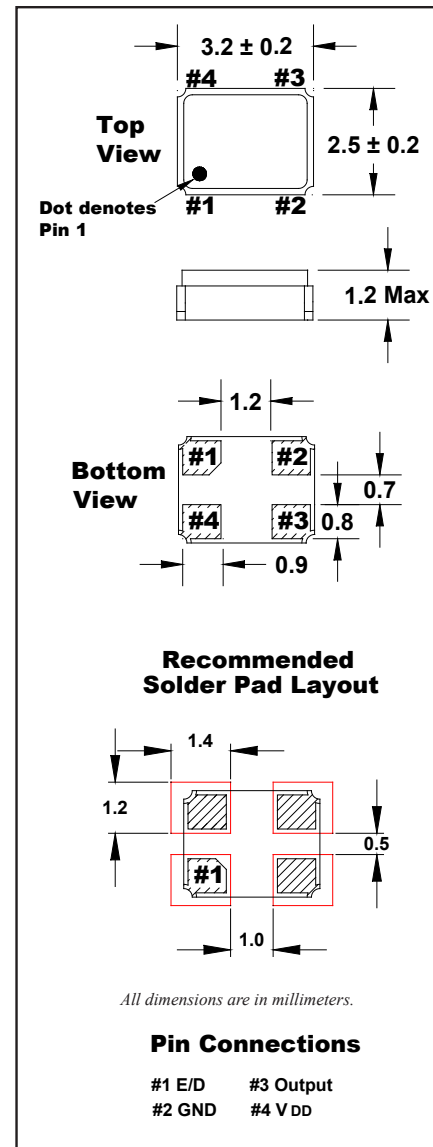
<sup>1</sup> Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration. \*Excludes Shock/Vibration

<sup>2</sup> An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

Note: A 0.01µF bypass capacitor should be placed between V<sub>DD</sub> (Pin 4) and GND (Pin 2) to minimize power supply line noise.

Drawing is for reference to critical specifications defined by size measurements.

Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary. All specifications subject to change without notice.



### • ENABLE / DISABLE FUNCTION

INH (Pin 1)	OUTPUT (Pin 3)
OPEN <sup>2</sup>	ACTIVE
'1' Level V <sub>IH</sub> ≥ 70% V <sub>DD</sub>	ACTIVE
'0' Level V <sub>IL</sub> ≤ 30% V <sub>DD</sub>	High Z

# HCMOS 3.2x2.5mm 1.8V SMD Oscillator



Model: F310 Series

RoHS Compliant / Pb Free

Rev. 5/2/2013

Page 1 of 2

[http://www.foxonline.com/need\\_a\\_sample.htm](http://www.foxonline.com/need_a_sample.htm)



• TAPE SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY
F310 Series	∅1.5	4.0	4.0	3.5	8.0	1.4	2,000

• REEL SPECIFICATIONS (millimeters)							
MODEL	G	H	I	J	K	L	M
F310 Series	2.0	∅13	∅21	∅60	∅180	9.0	1.2

