

# HCMOS 3.2x2.5mm 1.8V SMD Oscillator



Model: F310 Series

RoHS Compliant / Pb Free

Rev. 7/25/2007

Page 1 of 2

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## 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	1.800 ~ 50.000
676-Frequency-xxxxx	F310R	±100 PPM	-40 ~ +85	1.800 ~ 50.000
667-Frequency-xxxxx	F315	±50 PPM	-10 ~ +70	1.800 ~ 50.000
758-Frequency-xxxxx	F315R	±50 PPM	-40 ~ +85	1.800 ~ 50.000
668-Frequency-xxxxx	F316	±25 PPM	-10 ~ +70	1.800 ~ 50.000
759-Frequency-xxxxx	F316R	±25 PPM	-40 ~ +85	1.800 ~ 50.000

### • ELECTRICAL CHARACTERISTICS

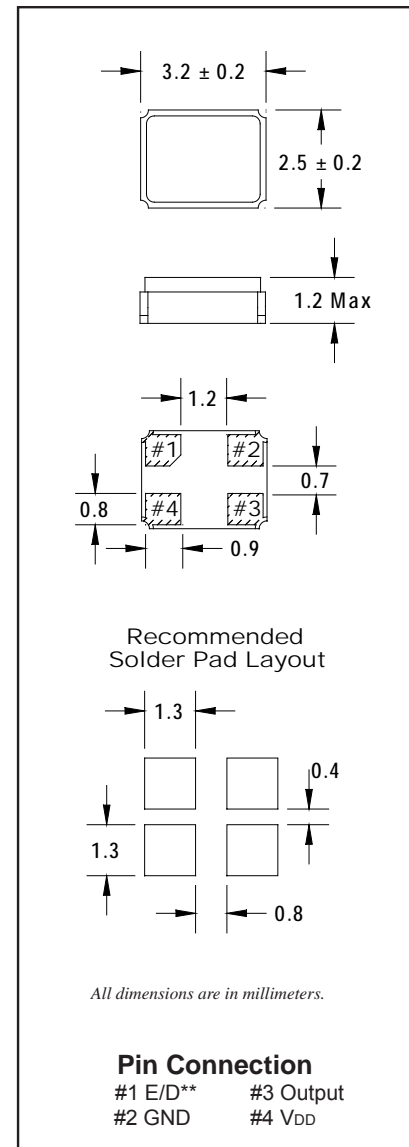
PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	1.800 ~ 50.000 MHz
Temperature Range (T <sub>STG</sub> )	
Operating	-10°C ~ +70°C
Storage	-55°C ~ +125°C
Supply Voltage (V <sub>DD</sub> )	1.8V ± 5%
Input Current (I <sub>DD</sub> )	
1.800 ~ 32.100 MHz	7mA
32.100+ ~ 50.000 MHz	15mA
Output Symmetry (50% V <sub>DD</sub> )	40% ~ 60%
Rise Time(20% ~ 80% V <sub>DD</sub> ) (T <sub>r</sub> )	
1.800 ~ 32.100 MHz	5nS
32.100+ ~ 50.000 MHz	3.5nS
Fall Time (80% ~ 20% V <sub>DD</sub> ) (T <sub>f</sub> )	
1.800 ~ 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

<sup>1</sup> Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and 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.

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

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## • 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	1.3	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

