

# 5.0V HCMOS SMD OSCILLATOR WITH STANDBY

## F4101 Series

### FEATURES

- 5.0V Operation
- HCMOS Output
- Standby Function
- Tape and Reel (2,000 pcs. STD)
- Pb Free



• MODEL NUMBER SELECTION			
Model Number	Frequency Stability <sup>1</sup>	Operating Temperature (°C)	Frequency Range (MHz)
F4101	±100PPM	-10 ~ +70	1.544 ~ 170.000
F4101R	±100PPM	-40 ~ +85	1.544 ~ 170.000
F4102	±50PPM	-10 ~ +70	1.544 ~ 170.000
F4102R	±50PPM	-40 ~ +85	1.544 ~ 170.000
F4103	±25PPM	-10 ~ +70	1.544 ~ 162.000
F4103R	±25PPM	-40 ~ +85	1.544 ~ 156.250
F4104	±20PPM	-10 ~ +70	1.544 ~ 162.000

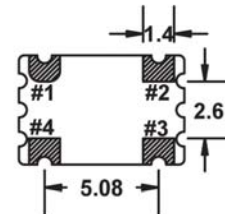
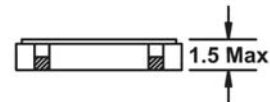
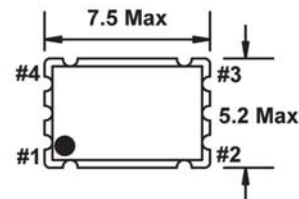
• ELECTRICAL CHARACTERISTICS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	1.544 ~ 170.000 MHz
Storage Temperature Range (TSTG)	-55°C ~ +125°C
Supply Voltage (VDD)	5.5V ±
Input Current (IDD)	80 mA
Output Symmetry (50% VDD)	40% ~ 60%
Rise Time (10% ~ 90% VDD) (TR)	5nS
Fall Time (90% ~ 10% VDD) (TF)	5nS
Output Voltage (VOL)	10% VDD
(VOH)	90% VDD Min
Output Current (IOL)	4mA Min
(IOH)	4mA Min
Output Load (HCMOS)	15pF
Standby Current	10µA
Start-up Time (Ts)	10mS
Output Disable Time <sup>2</sup>	150nS
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.

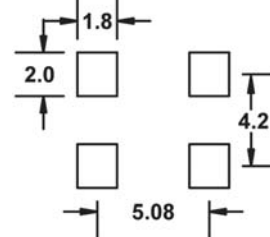
<sup>2</sup> An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open. See page 30 for mechanical specifications, test circuits, and output waveform.

Note: A 0.01µF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.

All specifications subject to change without notice. Rev. 3/8/04



#### Recommended Solder Pad Layout



#### Pin Connections

#1 E/D #3 Output  
#2 GND #4 V<sub>DD</sub>

All dimensions are in millimeters.

• ENABLE / DISABLE FUNCTION	
INH (Pin 1)	OUTPUT (Pin 3)
OPEN <sup>2</sup>	ACTIVE
'1' Level V <sub>IH</sub> ≥ 3.5V	ACTIVE
'0' Level V <sub>IL</sub> ≤ 1.5V	High Z

See page 60 for tape and reel specifications.