



5.0V HCMOS SMD OSCILLATOR WITH STANDBY

MODEL: F4101 Series



FEATURES

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



| • PART NUMBER SELECTION Learn More - Internet Required | | | | |
|--|--------------|----------------------------------|-----------------------|-----------------------|
| Part Number | Model Number | Frequency Stability ¹ | Operating Temperature | Frequency Range (MHz) |
| 118-Frequency-xxxxx | F4101 | ±100PPM | -10 ~ +70°C | 1.544 ~ 170.000 |
| 119-Frequency-xxxxx | F4101R | ±100PPM | -40 ~ +85°C | 1.544 ~ 170.000 |
| 120-Frequency-xxxxx | F4102 | ±50PPM | -10 ~ +70°C | 1.544 ~ 170.000 |
| 121-Frequency-xxxxx | F4102R | ±50PPM | -40 ~ +85°C | 1.544 ~ 170.000 |
| 122-Frequency-xxxxx | F4103 | ±25PPM | -10 ~ +70°C | 1.544 ~ 162.000 |
| 123-Frequency-xxxxx | F4103R* | ±25PPM | -40 ~ +85°C | 1.544 ~ 156.250 |
| 446-Frequency-xxxxx | F4104* | ±20PPM | -10 ~ +70°C | 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) | 5.0V ± 10% |
| Input Current (IDD) | |
| 1.544 ~ 32.000 MHz | 18mA |
| 32.000+ ~ 67.000 MHz | 50mA |
| 67.000+ ~ 125.000 MHz | 80mA |
| 125.000+ ~ 170.000 MHz | 90mA |
| Output Symmetry (50% VDD) | 40% ~ 60% |
| Rise Time (10% ~ 90% VDD) (TR) | |
| 1.544 ~ 79.999999 MHz | 5nS |
| 80.000 ~ 170.000 MHz | 4nS |
| Fall Time (90% ~ 10% VDD) (TF) | |
| 1.544 ~ 79.999999 MHz | 5nS |
| 80.000 ~ 170.000 MHz | 4nS |
| Output Voltage (VOL) | 10% VDD |
| (VOH) | 90% VDD Min |
| Output Current (IOL) | 2mA Min |
| (IOH) | -2mA Min |
| Output Load (HCMOS) | 15pF |
| Standby Current | 10µA |
| Start-up Time (Ts) | 10mS |
| Output Disable Time ² | 150nS |
| Output Enable Time ² | 10mS |

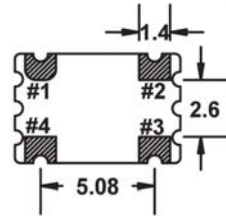
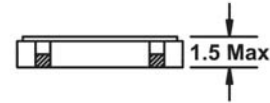
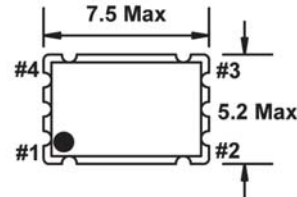
¹ Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration. *Excludes shock/vibration.

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

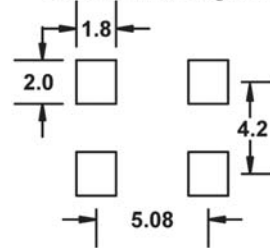
Note: A 0.01µF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise.

All specifications subject to change without notice. Rev. 5/26/04

Learn more about:
[Part Marking Identification](#)
[Tape and Reel Specification](#)
[Mechanical Specification](#)
 Internet required



Recommended Solder Pad Layout



Pin Connections

#1 E/D #3 Output
 #2 GND #4 VDD

All dimensions are in millimeters.

| • ENABLE / DISABLE FUNCTION | |
|-------------------------------------|----------------|
| INH (Pin 1) | OUTPUT (Pin 3) |
| OPEN ² | ACTIVE |
| '1' Level V _{IH} ≥ 70% VDD | ACTIVE |
| '0' Level V _{IL} ≤ 30% VDD | High Z |