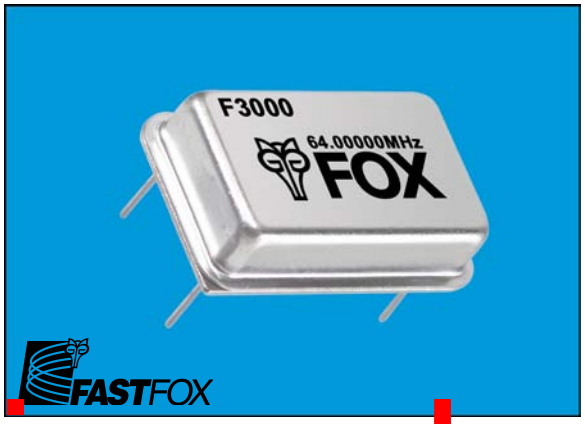
# HCMOS/TTL HEAVY LOAD OSCILLATOR
# F3000

The F3000 Clock Oscillator is capable of driving heavy HCMOS loads. This oscillator has a tri-state enable/disable function on pin 1 to facilitate testing with ATE. The package is all metal with pin 7 as case ground which provides shielding to help minimize EMI radiation.




## FEATURES

- 50pF HCMOS Load to 80 MHz
- 10TTL Fanout
- Tri-State Enable/Disable

**• MODEL NUMBER SELECTION**

| Frequency Stability | Model Number |
|---|---|
| ±100PPM | F3000 |
| ±50PPM (up to 90MHz) | F3005 |
| ±25PPM (up to 50MHz) | F3006 |

**Note: -40°C ~ +85°C "R" version available (ex: F3000R) to 90 MHz**

Discontinued

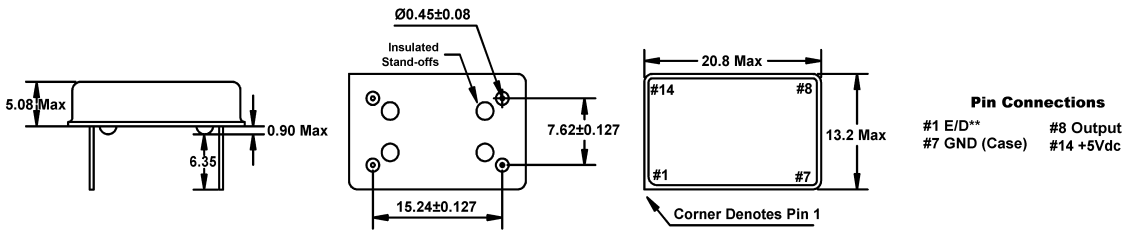
**• ELECTRICAL CHARACTERISTICS ($V_{DD}$ = 5.0V, $C_L$ = 50pF)**

| PARAMETERS | FREQUENCY RANGE | CONDITIONS | MIN | MAX | UNITS |
|---|---|---|---|---|---|
| Frequency Range (Fo) | | | 1.544 | 120.000 | MHz |
| Frequency Stability | 1.544 ~ 100.000<br>100.000+ ~ 120.000 | All Conditions* | -100<br>-200 | +100<br>+200 | PPM |
| Temperature Range<br>Operating (TOPR)<br>Storage (TSTG) | 1.544 ~ 120.000 | | <br>-10<br>-55 | <br>+70<br>+125 | <br>°C |
| Supply Voltage (VDD) | 1.544 ~ 120.000 | | +4.5 | +5.5 | V |
| Input Current (IDD) | 1.544 ~ 25.000<br>25.000+ ~ 50.000<br>50.000+ ~ 80.000<br>80.000+ ~ 120.000 | | | 25<br>40<br>77<br>82 | mA |
| Output Symmetry | 1.544 ~ 80.000<br>80.000+ ~ 120.000 | 2.5V | 45<br>40 | 55<br>60 | % |
| Rise Time (TR)<br>Fall Time (TF) | 1.544 ~ 120.000<br>1.544 ~ 120.000 | 0.5V ~ 4.5V<br>4.5V ~ 0.5V | | 5<br>5 | nS |
| Output Voltage (VOL)<br>(VOH) | 1.544 ~ 120.000 | IOL = 16 mA<br>IOH = -16 mA | <br>4.5 | 0.5 | V |
| Output Current (IOL)<br>(IOH) | 1.544 ~ 120.000 | VOL = 0.5 V<br>VOH = 4.5 V | | 16<br>- 16 | mA |
| Output Load | 1.544 ~ 120.000<br>1.544 ~ 80.000<br>80.000+ ~ 100.000<br>100.000+ ~ 120.000 | TTL<br>HCMOS<br>HCMOS<br>HCMOS | | 10<br>50<br>30<br>15 | TTL<br>pF<br>pF<br>pF |
| Start-up Time (TS) | 1.544 ~ 120.000 | | | 10 | mS |

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, and vibration.
***An internal pullup resistor from pin 1 to pin 14 allows active output if pin 1 is left open.
See page 44 for mechanical specifications, test circuits, and output waveform.
All specifications subject to change without notice. Rev. 03/02/00

**• ENABLE/DISABLE FUNCTION****

| INH (Pin 1) | OUTPUT (Pin 8) |
|---|---|
| OPEN *** | ACTIVE |
| '1' Level VIH ≥ 2.2 V | ACTIVE |
| '0' Level VIL ≤ 0.8 V | High Z |




*All dimensions are in millimeters.*