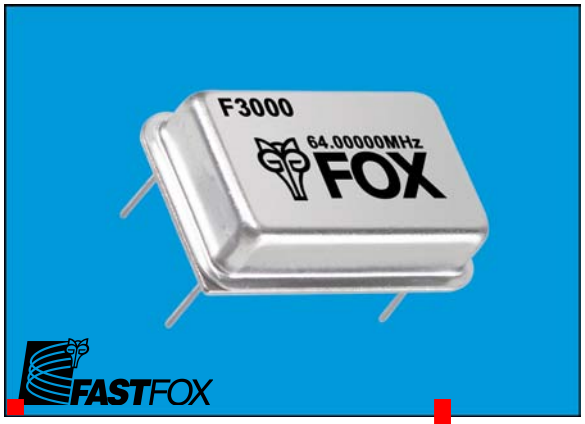
HCMOS/TTL HEAVY LOAD OSCILLATOR

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

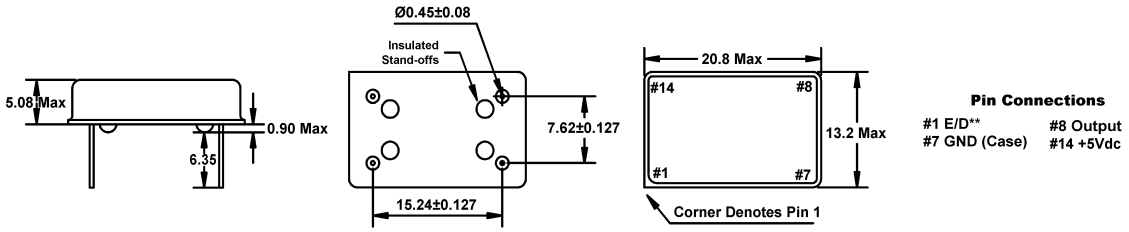
• ELECTRICAL CHARACTERISTICS (V_{DD} = 5.0V, C_L = 50pF)

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MIN	MAX	UNITS
Frequency Range (Fo)			1.544	120.000	MHz
Frequency Stability	1.544 ~ 100.000 100.000+ ~ 120.000	All Conditions*	-100 -200	+100 +200	PPM
Temperature Range Operating (T_{OPR}) Storage (T_{STG})	1.544 ~ 120.000		 -10 -55	 +70 +125	°C
Supply Voltage (V_{DD})	1.544 ~ 120.000		+4.5	+5.5	V
Input Current (I_{DD})	1.544 ~ 25.000 25.000+ ~ 50.000 50.000+ ~ 80.000 80.000+ ~ 120.000			25 40 77 82	mA
Output Symmetry	1.544 ~ 80.000 80.000+ ~ 120.000	2.5V	45 40	55 60	%
Rise Time (T_R) Fall Time (T_F)	1.544 ~ 120.000 1.544 ~ 120.000	0.5V ~ 4.5V 4.5V ~ 0.5V		5 5	nS
Output Voltage (V_{OL}) (V_{OH})	1.544 ~ 120.000	I_{OL} = 16 mA I_{OH} = -16 mA	 4.5	0.5	V
Output Current (I_{OL}) (I_{OH})	1.544 ~ 120.000	V_{OL} = 0.5 V V_{OH} = 4.5 V		16 - 16	mA
Output Load	1.544 ~ 120.000 1.544 ~ 80.000 80.000+ ~ 100.000 100.000+ ~ 120.000	TTL HCMOS HCMOS HCMOS		10 50 30 15	TTL pF pF pF
Start-up Time (T_S)	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**

$\overline{INH}$ (Pin 1)	OUTPUT (Pin 8)
OPEN ***	ACTIVE
'1' Level $V_{IH} \geq 2.2$ V	ACTIVE
'0' Level $V_{IL} \leq 0.8$ V	High Z



All dimensions are in millimeters.

OSCILLATORS