

### FEATURES

- \* HCMOS/TTL logic compatible
- \* Wide frequency range
- \* Low power consumption
- \* Resistance weld package
- \* 3.3V operation (optional)

The IDO-FS Series clock oscillator offers low current drain and is compatible with HCMOS/TTL logic. The metal package with pin #7 case ground acts as shielding to minimize radiation.



### OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE ( $f_0$ )	1 ~ 150.000		1		150.000	MHz
OPERATING TEMP. RANGE ( $T_{OPR}$ )	1 ~ 150.000		0		+70	°C
STORAGE TEMP. RANGE ( $T_{STG}$ )	1 ~ 150.000		-55		+125	°C
FREQUENCY STABILITY	1 ~ 150.000	All conditions*	-100		+100	PPM
INPUT CURRENT ( $I_{DD}$ )	1.000 ~ 20.000				12	mA
	20.000 ~ 25.000				15	mA
	25.000 ~ 150.000				30	mA
OUTPUT SYMMETRY		50% VDD level	40	50 ± 5	60	%
RISE TIME ( $T_R$ )	1 ~ 25.000	10% ~ 90% VDD level			10	nS
	25.000 ~ 150.000	10% ~ 90% VDD level			5	nS
FALL TIME ( $T_F$ )	1 ~ 25.000	90% ~ 10% VDD level			10	nS
	25.000 ~ 150.000	90% ~ 10% VDD level			5	nS
OUTPUT VOLTAGE	1 ~ 150.000	IOL = 4 mA			0.5	V
	1 ~ 150.000	IOH = -4 mA	4.5			V
OUTPUT CURRENT	1 ~ 150.000	VOL = 0.5 V			4	mA
	1 ~ 150.000	VOH = 4.5 V			-4	mA
	1 ~ 150.000	TTL			10	TTL
OUTPUT LOAD	1 ~ 150.000	HCMOS			15	pF
	1 ~ 150.000				5	mS
START-UP TIME ( $T_S$ )	1 ~ 25.000				10	mS
	25.000 ~ 150.000					V
SUPPLY VOLTAGE		+5.0 / +3.3				

\* 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 8 allows active output if pin 1 is left open.

### PACKAGE DIMENSIONS (mm)

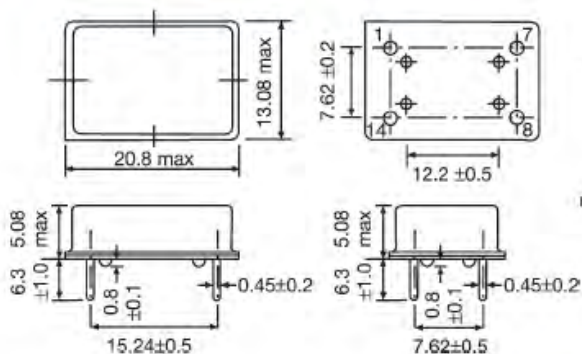


Figure 1) IDO-FS Series -Top, Bottom and Side views

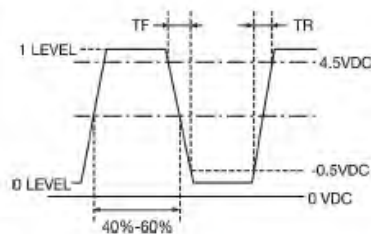


Figure 2) Output Wave Form

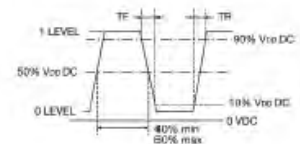


Figure 3) HCMOS Output Wave Form

PIN CONNECTIONS	
#1	NC/TRI-STATE
#7	CASE GND
#8	OUTPUT
#14	+5 V DC

PIN CONNECTIONS	
INH (PIN 1)	OUTPUT(PIN8)
OPEN**	ACTIVE
1 LEVEL VIH ≥ 2.2V (VH ≥ 2.0V ABOVE 70MHz)	ACTIVE
"0" LEVEL VIL ≤ 0.8V	HIGH Z