



Crystal Clock Oscillator — Low Profile TTL

by SaRonix

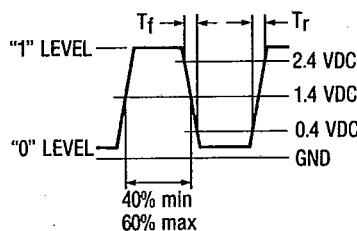
Technical Data

Ref. No. **Series M**
Date **May 1988**
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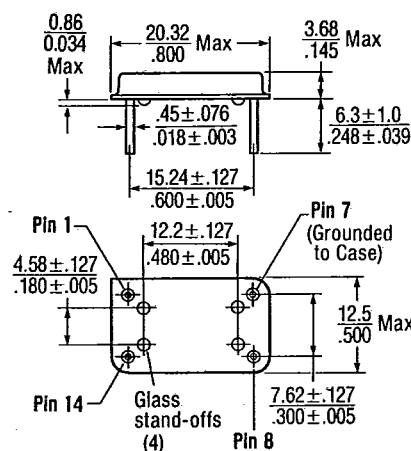
Description

A low profile crystal controlled hybrid oscillator circuit designed to meet board height restrictions. Maximum seated height without stand-offs is a mere 0.145 inches (3.68 mm). This oscillator produces TTL output characteristics at frequencies between 250 kHz and 110 MHz. Device is packaged in a 14-pin DIP compatible all metal hermetic resistance welded case. Available with or without glass stand-offs.

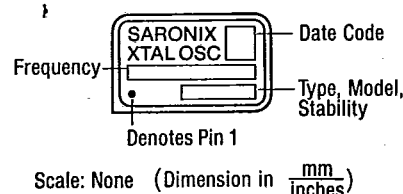
Output Waveform



Package



Standard Marking Format



Frequency Range: 250 kHz to 110.000000 MHz

Frequency Stability: ± 0.0025 to $\pm 0.050\%$ over all conditions: calibration tolerance, operating temperature, input voltage change, load change, aging, shock and vibration.

Temperature Range:
Operating: 0°C to $+70^{\circ}\text{C}$
Storage: -55°C to $+125^{\circ}\text{C}$

Input Voltage: Rated: $+5\text{ VDC} \pm 10\%$
Operating: $+4\text{ VDC min.}, +7\text{ VDC max.}$

Input Current:	Maximum at 25°C	Maximum over Temperature
250 kHz to 19.9999 MHz	30mA	40mA
20.0 MHz to 59.9999 MHz	55mA	65mA
60.00 MHz to 89.9999 MHz	80mA	90mA
90.00 MHz to 110.0000 MHz	90mA	100mA

Output: Symmetry: $50\% \pm 10\%$ @ 1.4 VDC Level
Rise & Fall Times: 8ns max. for 250 kHz to 25 MHz
6ns max. for 25 MHz to 70 MHz
3ns max. for over 70 MHz
"0" Level: $+0.4\text{ Volts max.}$
"1" Level: $+2.4\text{ Volts min.}$
Output Load: 1 to 10 TTL Gates (1.6mA per gate)

Mechanical: Shock: MIL-STD-883C, Method 2002.3, Condition B
Solderability: MIL-STD-883C, Method 2003.5
Terminal Strength: MIL-STD-202F, Method 211A, Conditions A and C
Vibration: MIL-STD-883C, Method 2007.1, Condition A
Solvent Resistance: MIL-STD-202F, Method 215C
Resistance to Soldering Heat: MIL-STD-202F, Method 210A, Condition B

Environmental: Gross Leak Test: MIL-STD-883C, Method 1014.8, Condition C1
Fine Leak Test: MIL-STD-883C, Method 1014.8, Condition A2, $<5 \times 10^{-8}$ ATM cc/sec.
Thermal Shock: MIL-STD-883C, Method 1011.7, Condition A
Moisture Resistance: MIL-STD-883C, Method 1004.6

Part Numbering Guide

