MTXO Series
14 DIP, 5.0 Volt, HCMOS/TTL, TCXO

- Stable TCXO to +/- 1ppm
- Reference timing for SONET, ATM, Instrumentation, and Military Applications

Ordering Information

MTXO 1 H V A D 00.0000 MHz

Product Series

Temperature Range
- **1:** 0°C to +70°C
- **2:** -40°C to +85°C
- **6:** -20°C to +70°C
- **8:** 0°C to +50°C

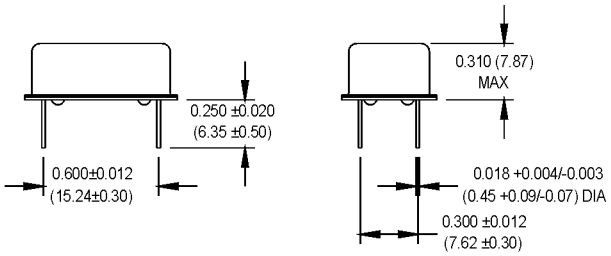
Stability
- **E:** ±10 ppm
- **L:** ±5 ppm
- **H:** ±2.5 ppm
- **K:** ±2 ppm
- **J:** ±1 ppm

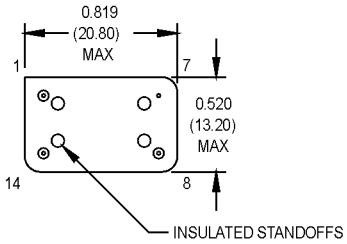
Frequency Control (Pin #1)
- **F:** Fixed ("H", "L", and "E" stabilities only)
- **V:** ±5 ppm Min. For 0 VDC to 5.0 VDC

Symmetry/Logic Compatibility
- **A:** 40/60 CMOS/TTL
- **B:** 45/55 TTL (< 100.000 MHz only)
- **C:** 45/55 CMOS
- **T:** True Sinewave Output

Package/Lead Configurations
- **D:** DIP; Nickel Header
- **S:** Surf Board

Frequency (customer specified)





All dimensions in inches (mm).

Electrical Specifications

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Frequency Range	**F**	0.5 10		155.52 33	MHz MHz	CMOS/TTL Sinewave
Operating Temperature	**TA**	(See ordering information)				
Storage Temperature	**Ts**	-55		+125	°C	
Frequency Stability	**ΔF/F**	(See ordering information)				
Aging **1st Year** **Thereafter (per year)**				 1.5 0.5	 ppm ppm	
Control Voltage	**Vc**	0	2.5	5.0	V	Negative Slope
Tuning Range				5	ppm/V	
Modulation Bandwidth	**fm**	10			KHz	
Input Impedance	**Zin**	100k			Ω	
Input Voltage	**Vdd**	4.75	5.0	5.25	V	
Input Current	**Idd**			30 45	mA mA	0.5 to 70 MHz 70.001 to 155.52 MHz
Output Type						CMOS/TTL/Sinewave
Load		5 TTL or 15 pF Max. 50 Ohms to ground				CMOS/TTL Sinewave
Symmetry (Duty Cycle)		(See ordering information)				See Note 1
Logic "1" Level	**Voh**	4.5			V	CMOS/TTL
Logic "0" Level	**Vol**			0.5	V	CMOS/TTL
Output Power	**Po**	0			dBm	
Rise/Fall Time **0.5 to 30 MHz** **30.001 to 155.52 MHz**	**Tr/Tf**			 10 5	 ns ns	See Note 2
Start up Time		10			ms	
Phase Noise (Typical)	**10 Hz**	**100 Hz**	**1 kHz**	**10 kHz**	**100 kHz**	**Offset from carrier**
@ 19.44 MHz	-78	-103	-136	-143	-146	dBc/Hz
@ 155.52 MHz	-42	-66	-76	-80	-89	dBc/Hz

1. Symmetry is measured at 1.4 V with TTL load; and at 50% Vdd with HCMOS load.
2. Rise/fall times are measured between 0.5 V ands 2.4 V with TTL load; and between 10% Vdd and 90% Vdd with HCMOS load. Output levels to +8 dBM are available. Contact factory for non-standard requirements.