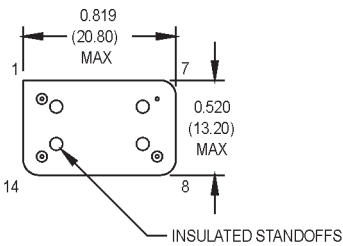
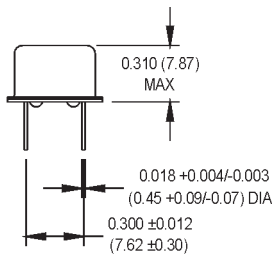
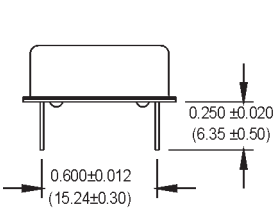


MTXV Series

14 DIP, 5.0 Volt, HCMOS/TTL, TCVCXO



All dimensions in inches (mm).

* See page 146 for surf board configuration.

Pin Connections

PIN	FUNCTION
1	Control Voltage
7	Ground/Case
8	Output
14	+Vdd

Ordering Information	
Product Series	MTXV 1 H 8 A D 00.0000 MHz
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
Frequency Control (Pin #1)	8: ±25 ppm Min. 9: ±35 ppm Min.
Symmetry/Logic Compatibility	A: 40/60 CMOS/TTL B: 45/55 TTL (< 100.000 MHz only) C: 45/55 CMOS
Package/Lead Configurations	D: DIP; Nickel Header S: Surf Board
Frequency (customer specified)	

* Referenced to 25°C reading at 2.5 VDC control voltage.

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Frequency Range	F	0.5		155.52	MHz	
Frequency Stability	$\Delta F/F$	(See Ordering Information)				
Operating Temperature	T _A	(See Ordering Information)				
Storage Temperature	T _s	-55		+125	°C	
Input Voltage	V _{dd}	4.75	5.0	5.25	VDC	
Input Current	I _{dd}		15	25	mA	0.5 MHz to 30 MHz
			18	30	mA	30.001 MHz to 70 MHz
			20	45	mA	70.001 MHz to 155.52 MHz
Symmetry ¹		(See Ordering Information)				
Load		5 TTL or 15 pF Max.				
Rise/Fall Time ²	Tr/Tf			10	ns	0.5 MHz to 30 MHz
				5	ns	30.001MHz to 155.52 MHz
Logic "1" Level	V _{oh}	2.4			VDC	TTL
		90			%	HCMOS
Logic "0" Level	V _{ol}			10	VDC	TTL
				0.4	%	HCMOS
Cycle to Cycle Jitter						1 Sigma
@ 19.44 MHz				4.2	ps RMS	
@ 38.88 MHz				8.7	ps RMS	
@ 155.52 MHz				5.5	ps RMS	
Phase Noise (Typical)						Offset from carrier
@ 19.44 MHz	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	dBc/Hz
@ 38.88 MHz						dBc/Hz
@ 155.52 MHz						dBc/Hz
Modulation Bandwidth	f _m	10			kHz	
Input Impedance (Pin 1)	Z _{in}	50			K Ω	
Control Voltage	V _c	0	2.5	5.0	VDC	
Center Frequency	V _{c0}		2.5		VDC	
Pullability		(See Ordering Information)				
Deviation Slope						Positive, Monotonic
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C				
	Vibration	Per MIL-STD-202, Method 201 & 204				
	Reflow Solder Conditions	See Page 147				
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁵ atm.cc/s of helium)				
	Solderability	Per EIAJ-STD-002				

1. Symmetry is measured at 1.4 V with TTL load, and at 50% V_{dd} with HCMOS load.

2. Rise/fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} with HCMOS load.

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