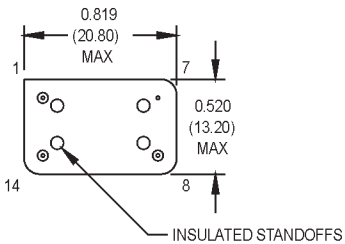
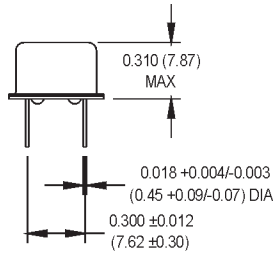
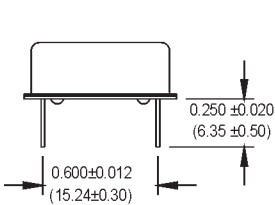


MTXV Series

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
Electrical Specifications	Frequency Range	F	0.5		155.52	MHz	
	Frequency Stability	ΔF/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	T _r /T _f			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				4.2	ps RMS	1 Sigma
	@ 19.44 MHz				8.7	ps RMS	
	@ 38.88 MHz				5.5	ps RMS	
	@ 155.52 MHz						
Environmental	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
	@ 38.88 MHz	-45	-77	-100	-89	-88	dBc/Hz
	@ 155.52 MHz	-42	-66	-76	-80	-89	dBc/Hz
	Modulation Bandwidth	f _m	10			kHz	
	Input Impedance (Pin 1)	Z _{in}	50			KΩ	
	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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