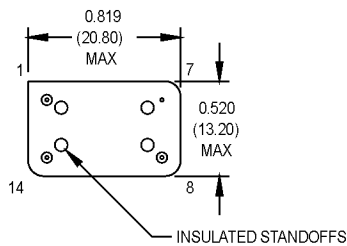
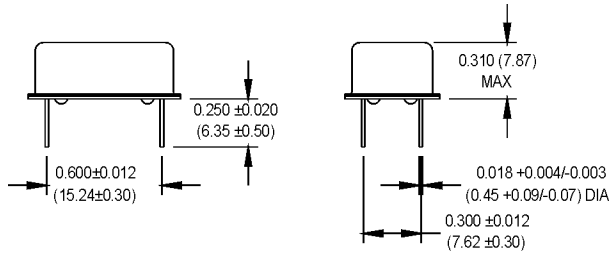


# MTXV Series 5.0 Volt TCVCXO



All dimensions in inches (mm).

\* See page 90 for surf board configuration.

## Pin Connections

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

## Ordering Information

Product Series	Temperature Range	Stability*	Frequency Control (Pin #1)	Symmetry/Logic Compatibility	Package/Lead Configurations	Frequency (customer specified)
MTXV	1: 0°C to +70°C 6: -20°C to +70°C	E: ±10 ppm H: ±2.5 ppm	8: ±25 ppm Min. 9: ±35 ppm Min.	A: 40/60 CMOS/TTL C: 45/55 CMOS	D: DIP; Nickel Header S: Surf Board	00.0000 MHz
	2: -40°C to +85°C 8: 0°C to +50°C	L: ±5 ppm		B: 45/55 TTL (< 100.000 MHz only)		

\* 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	ΔF/F	(See Ordering Information)				
Operating Temperature	TA	(See Ordering Information)				
Storage Temperature	Ts	-55		+125	°C	
Input Voltage	Vdd	4.75	5.0	5.25	VDC	
Input Current	Idd		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 <sup>1</sup>		(See Ordering Information)				
Load		5 TTL or 15 pF Max.				
Rise/Fall Time <sup>2</sup>	Tr/Tf			10	ns	0.5 MHz to 30 MHz
				5	ns	30.001MHz to 155.52 MHz
Logic "1" Level	Voh	2.4			VDC	TTL
		90			%	HCMOS
Logic "0" Level	Vol			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	-78	-103	-136	-143	-146
@ 38.88 MHz		-45	-77	-100	-89	-88
@ 155.52 MHz		-42	-66	-76	-80	-89
Modulation Bandwidth	fm	10				kHz
Input Impedance (Pin 1)	Zin	50				KΩ
Control Voltage	Vc	0	2.5	5.0		VDC
Center Frequency	Vc0		2.5			VDC
Pullability		(See Ordering Information)				
Deviation Slope						ppm/V
						Positive, Monotonic
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C				
	Vibration	Per MIL-STD-202, Method 201 & 204				
	Reflow Solder Conditions	240°C for 10 s max.				
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm.cc/s of helium)				
	Solderability	Per EIAJ-STD-002				

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 and 2.4 V with TTL load, and between 10% Vdd and 90% Vdd with HCMOS load.

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