MXO5165 Series
14 DIP, 5.0 or 3.3 Volt, HCMOS, OCXO

- **Standard DIP/DIL package offering tight stabilities, fast warm-up, and low current**
- **Stratum 3 Application**

Ordering Information

MXO5165 A 5 R1 00.0000 MHz

Product Series

Temperature Range
- **A:** 0°C to +70°C
- **B:** -20°C to +70°C
- **C:** -40°C to +85°C

Power Supply
- **3:** 3.3V ±0.15V
- **5:** 5.0V ±0.25V

Frequency Adjustment Method:
- **R1:** External Resistor Adjust (See Figure 1)
- **V5:** Voltage Adjust (See Figure 2)

Frequency (Customer Specified)

Figure 1

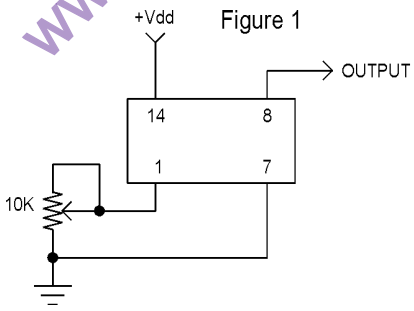
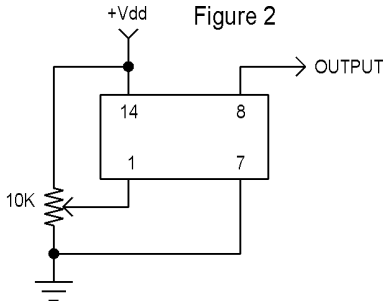
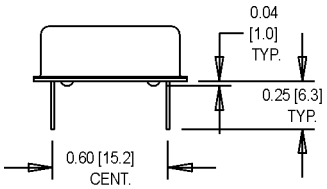


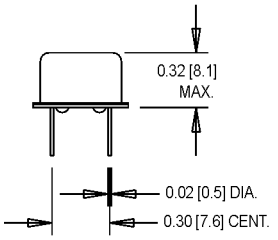
Figure 2

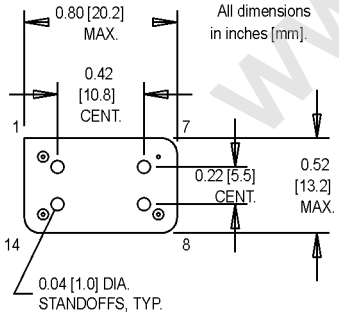


Pin Connections

PIN	FUNCTION
1	Frequency Adjust
7	Case ground & supply return
8	R.F. Output
14	Supply (+)







	PARAMETER	Symbol	Min.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	10	20	MHz	
	Operating Temperature	TA	(See Ordering Information)		°C	
	Short Term Stability		5 x 10^{-10}			0.1 to 30 secs.
	Holdover Stability			±0.28	ppm	24 hours
	Overall Stability			±4.6	ppm	15 years
	Supply Voltage	Vdd	(See Ordering Information)			
	Warm-Up Time		To spec after 30 secs.			0°C
	Warm-Up Current			250	mA	During first 10 secs.
	Supply Current	Idd		70	mA	+30°C @ 5.0V
				110	mA	+30°C @ 3.3V
				110	mA	-20°C @ 5.0V
				160	mA	-20°C @ 3.3V
	Output Signal					HCMOS/TTL Compatible
	Rise/Fall Time	Tr/Tf		7	ns	Ref. 10% and 90%
	Logic "0" Level	Vol		0.4	Volts	
	Logic "1" Level	Voh	Vdd - 0.5		Volts	
	Symmetry	Sym		45/55	%	Ref. To 1/2 Vcc
	Output Load			15 pf HCMOS		
				10 LS TTL		
	Frequency Adjustment (Pin 1)		±4		ppm	See Figure 1 or 2
	Tuning Slope		Positive			
	Input Impedance (Pin 1)		4.7K		ohms	
	Phase Noise					(BW = 1 Hz)
	1 Hz			-70	dBc/Hz	Offset from carrier
	10 Hz			-100	dBc/Hz	
	100 Hz			-130	dBc/Hz	
	1 kHz			-140	dBc/Hz	
Environmental	Mechanical Shock	2000 g, 0.3 mS, 1/2 sine				
	Vibration	2000 Hz, 10 g				
	Storage Temperature	-55°C to +125°C				
	Hermeticity	Per MIL-STD-202, Method 112				
	Solderability	EIAJ-STD-002				

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