PTI
Piezo Technology, Inc.

OSCILLATORS

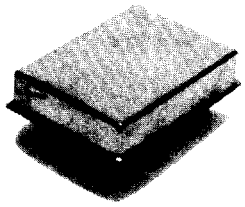
TCXO -- Model XO3080 Series

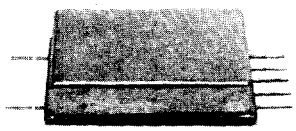
***Features*:**

- **Very small size (0.98" x 0.69" x 0.22")**
- **Very low profile**
- **Surface or through-hole mounted**
- **Low power**
- **High stability**
- **Ruggedized design**
- **Sine or logic output**
- **VCXO version available**

***Applications*:**

Portable communication systems, GPS receivers, and where very small size and low power are needed.





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Specifications -- XO3080 Series

	Standard	Options
Frequencies	20.0, 25.5, 43.796, 46.72, 48.0, 75.0 MHz	10 to 100 MHz
Aging Per Year	Dependent on frequency, as low as 0.5 ppm/yr	
SSB Phase Noise (dBc):	Frequency dependent as low as -90 dBc at > 10 Hz offset -150 dBc at > 10 kHz offset	
Power Supply: Oscillator voltage Oscillator current	5 V ± 0.25 V 3 mA	5 V to 15 V (Sinewave version)
Frequency Adjustment: Method Range	Ext. 10 K pot ± 5 ppm for aging	Ext. voltage or VCXO to ± 30 ppm/V
Output Signal: Type Level Load	Sinewave 1.5 V pk-pk 1 Kohms//10 pF	CMOS -3 to +3 dBm in 50 Ω
Environmental: Vibration Shock	0.4 g^2/Hz, 100-2000 Hz 50 g 11 mS ½ sine	Consult factory

This series of oscillators is <u>not</u> designed to withstand IR/convection or vapor phase solder reflow. The surface mount version should be attached using a hand held soldering iron. The through-hole version may be attached by hand or by wave soldering .

This series of oscillators is available in surface mount or through-hole mounting. The output type can be sinewave or CMOS logic.

	Surface Mount	Through-hole
Sinewave	XO3080	XO3081
CMOS logic	XO3082	XO3083

Optional Temperature Ranges and Frequency Stabilities

Temperature Range (°C)	Frequency/Temperature Stability (ppm)						
	± 5	± 3	± 2	± 1	±0.75	±0.50	±0.25
+15 to +30	X	X	X	X	X	X	X
0 to +50	X	X	X	X	X	X	X
0 to +70	X	X	X	X	X	X	
-20 to +70	X	X	X	X	X		
-40 to +75	X	X	X	X			
-55 to +85	X	X	X	X			

This TCXO can be produced to these specifications, with extended temperature range and tighter stability being cost drivers.

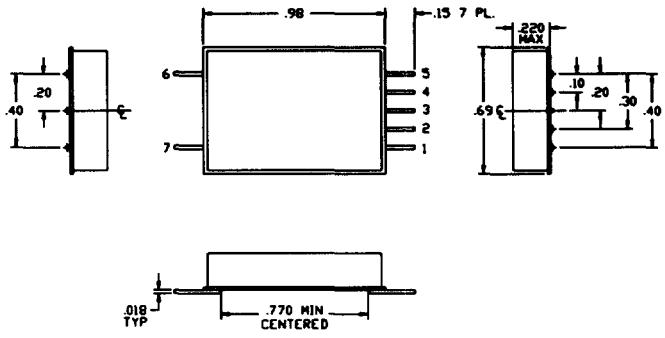
XO3080-001 -- Standard Version Preferred

Frequency		**20 MHz**
Temperature Range		**-30 to +70°C**
Temperature Stability		**± 0.75 ppm**
Aging Per Year		**± 1 ppm max.**
SSB Phase Noise (dBc) at:	**10 Hz** **100 Hz** **1000 Hz** **10000 Hz**	**-85** **-115** **-135** **-145**
Power Supply:	**Oscillator voltage** **Oscillator current**	**5 V ± 0.25 V** **2 mA**
Frequency Adjustment:	**Method** **Range**	**Ext. 10 k Pot** **± 5 ppm**
Output Signal:	**Type** **Level** **Load**	**Sinewave** **2.0 V pk-pk** **1 Kohms//10 pF**
Environmental:	**Vibration** **Shock**	**0.4 g^2/Hz,, 100-2000 Hz** **50 g 11 mS ½ sine**

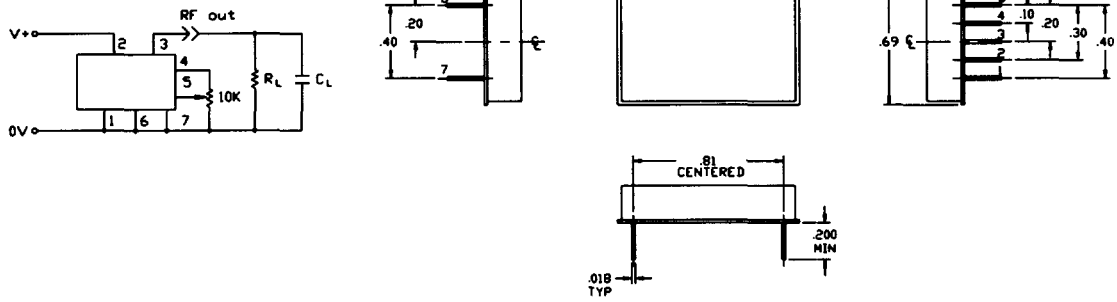
Outline Drawings -- XO3080 Series

Pin Assignments
1. Case ground & supply return
2. Supply (+)
3. RF output
4. Trim Ref.
5. Freq. Adj.\trim wiper
6. Case ground
7. Case ground

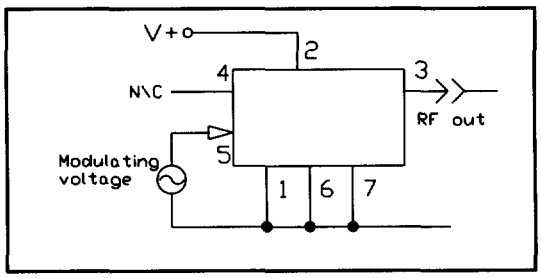
Pin numbers shown for Ref. only. Numbers are not stamped on unit.



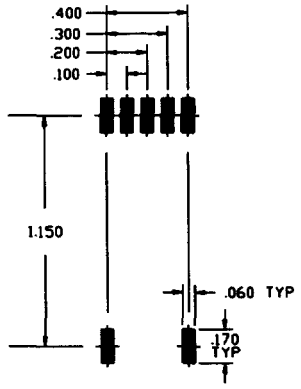
Surface Mount



Through Hole



VCXO Connection



Suggested Land Pattern

Oscillator is to be soldered to lands by hand with a maximum lead temp of 260°C 1/16" from case for a maximum of 10 seconds .

Specifications subject to change without notice.