

SPECIFICATION FOR HCMOS VCXO

MtronPTI P/N: M3006S002

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _o		49.152000		MHz	
Frequency Stability						
Frequency Stability		-50		+50	ppm	Including calibration tolerance at +25°C with V _c = 1.65 and deviation over operating temperature range.
RF Output						
Output Type		HCMOS Compatible				
Output Load		15 pF HCMOS				
Symmetry (duty cycle)	T _{DC}	45		55	%	@ 50% V _{DD} with HCMOS load
Logic Level "1"		90% V _{DD}			V	
Logic Level "0"				10% V _{DD}	V	
Rise/Fall Time	T _R /T _F			5	ns	From 20% to 80% V _{DD}
Start-Up Time			4	10	ms	
Tristate Function		80% V _{DD} or N/C			V	Pad 5: Outputs enabled
				20% V _{DD}	V	Pad 5: Output disabled
Frequency Adjustment						
Pullability		±100			ppm	Referenced to frequency with V _c = 1.65
Control Voltage		0.30	1.65	3.00	V	Pad 1
Linearity				10	%	
Modulation Bandwidth	f _m	10			kHz	-3 dB
Input Impedance	Z _{in}	1			MΩ	Pad 1
Supply Voltage & Current						
Operating Voltage	V _{DD}	3.13	3.30	3.47	V	
Operating Current	I _{DD}			25	mA	
Other Parameters						
Phase Noise			-70		dBc/Hz	@ 10 Hz
			-100			@ 100 Hz
			-135			@ 1 kHz
			-155			@ 10 kHz
			-155			@ 100 kHz

Environmental & Packaging Requirements:

Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1.					
Package Type	5 X 7 mm 6-pad leadless ceramic. RoHS compliant.					

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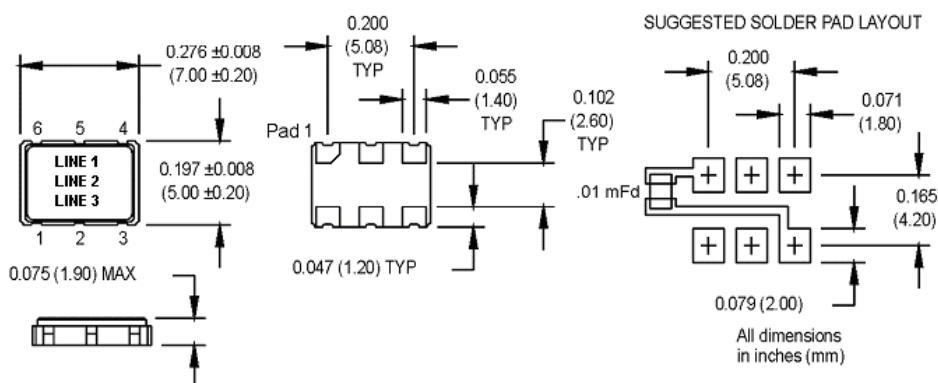
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Marking, Pin Out & Dimensions:

Pad	Function
1	Control Voltage
2	No Connection
3	Ground
4	Output
5	Tristate Control
6	+V _{DD}

Part Marking	
Line 1	M3006S302
Line 2	49M1520
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code



Soldering Conditions:

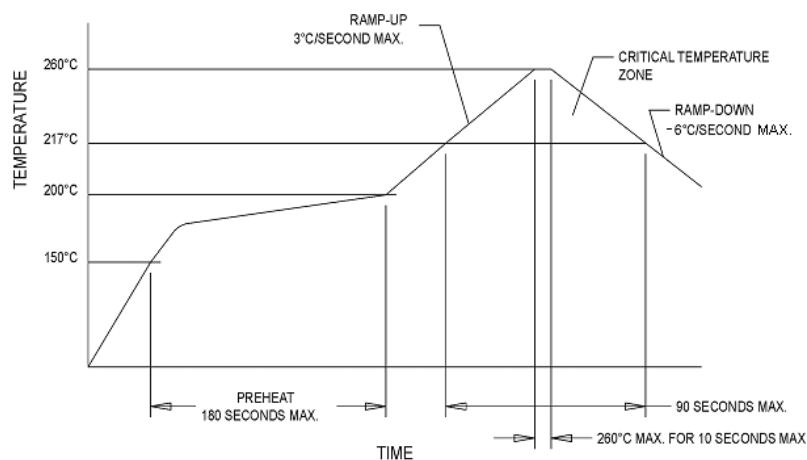


Figure 2

DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
07/22/16	0	MM	Original release