

SPECIFICATION FOR RoHS 6 COMPLIANT HCMOS SMT VCXO

MtronPTI P/N M3006S257

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		122.880000		MHz	
Operating Temperature	T _A	-40		+85	°C	
Aging		-5		+5	ppm	Per year
		-2		+2	ppm	Per year thereafter
Operating Voltage	V _{DD}	3.135	3.3	3.465	V	
Operating Current	I _{DD}			50	mA	
Output Type		HCMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	45	50	55	%	@ 50% of waveform
Logic "1" Level	V _{OH}	90% V _{DD}			V	HCMOS load
Logic "0" Level	V _{OL}			10% V _{DD}	V	HCMOS load
Rise/Fall Time	T _R /T _F			2	ns	From 10% to 90% V _{DD}
Pullability (APR)		± 50			ppm	
Control Voltage Range		0.3	1.65	3.0	V	Pad 1
Modulation Bandwidth		10			kHz	-3 dB Pad 1
Linearity				15	%	Positive monotonic slope
Input Impedance		50			kΩ	Pad 1
Tri-state Function		Logic "1" enables output. Logic "0" disables output to a high-Z state.			V	Pad 2
Start-up Time	T _{SU}		4	10	ms	
Phase Jitter			3.0	5.0	ps	12 kHz to 20 MHz

Environmental Conditions:

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)
Storage Temperature	-45°C to +95°C
Solderability	Per EIAJ-STD-002
Max. Soldering Conditions	See solder profile, Figure 1
Package Type	5.0 x 7.0 x 1.9 mm, 6 Pad Ceramic Leadless Chip Carrier. RoHS compliant.

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Mechanical, Marking and Layout Information:

Pad	Function
1	Control Voltage
2	Tri-State
3	Ground
4	Output
5	N/C
6	+V _{DD}

Part Marking	
Line 1	M3006S257
Line 2	122M880
Line 3	M yywwvv

Legend	
yy	Year
ww	Work week
vv	Factory code

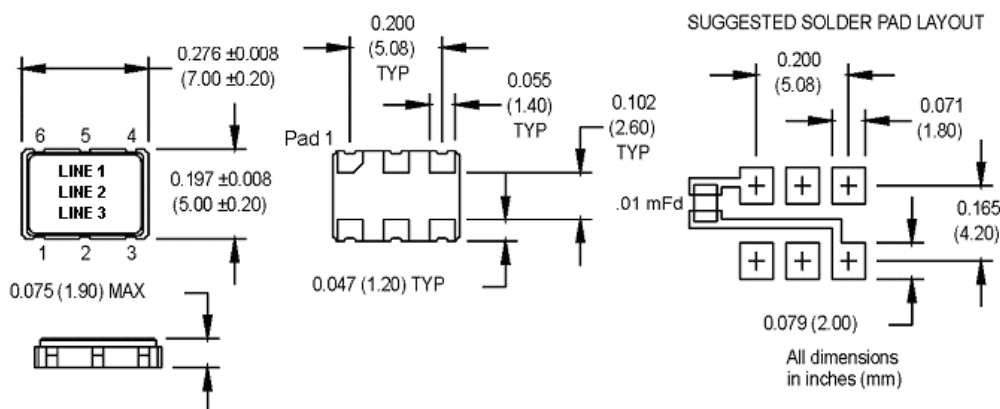
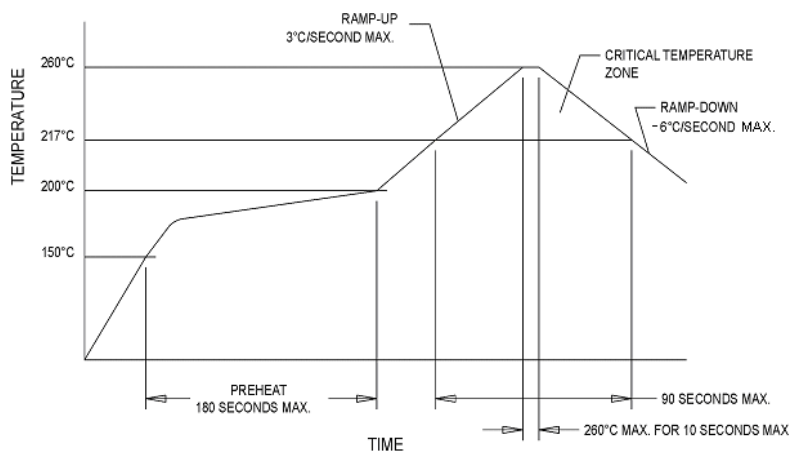


Figure 1



DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
4/4/11	0	WNJ	Original release.