

Specification for a CMOS 9x14mm SMD VCXO Series MtronPTI P/N: XO7013-0XXR

Frequency Offering: 50MHz to 262 MHz

Ultra-Low phase Noise and Low Jitter performance

9X14mm SMT Package, CMOS, Industrial Temperature, 3.3V_{dc}

Applications: Instrumentation, Avionics, Satcom, Datacom

Specifications for XO7013-001R 100MHz, HCMOS, 3.3v Device

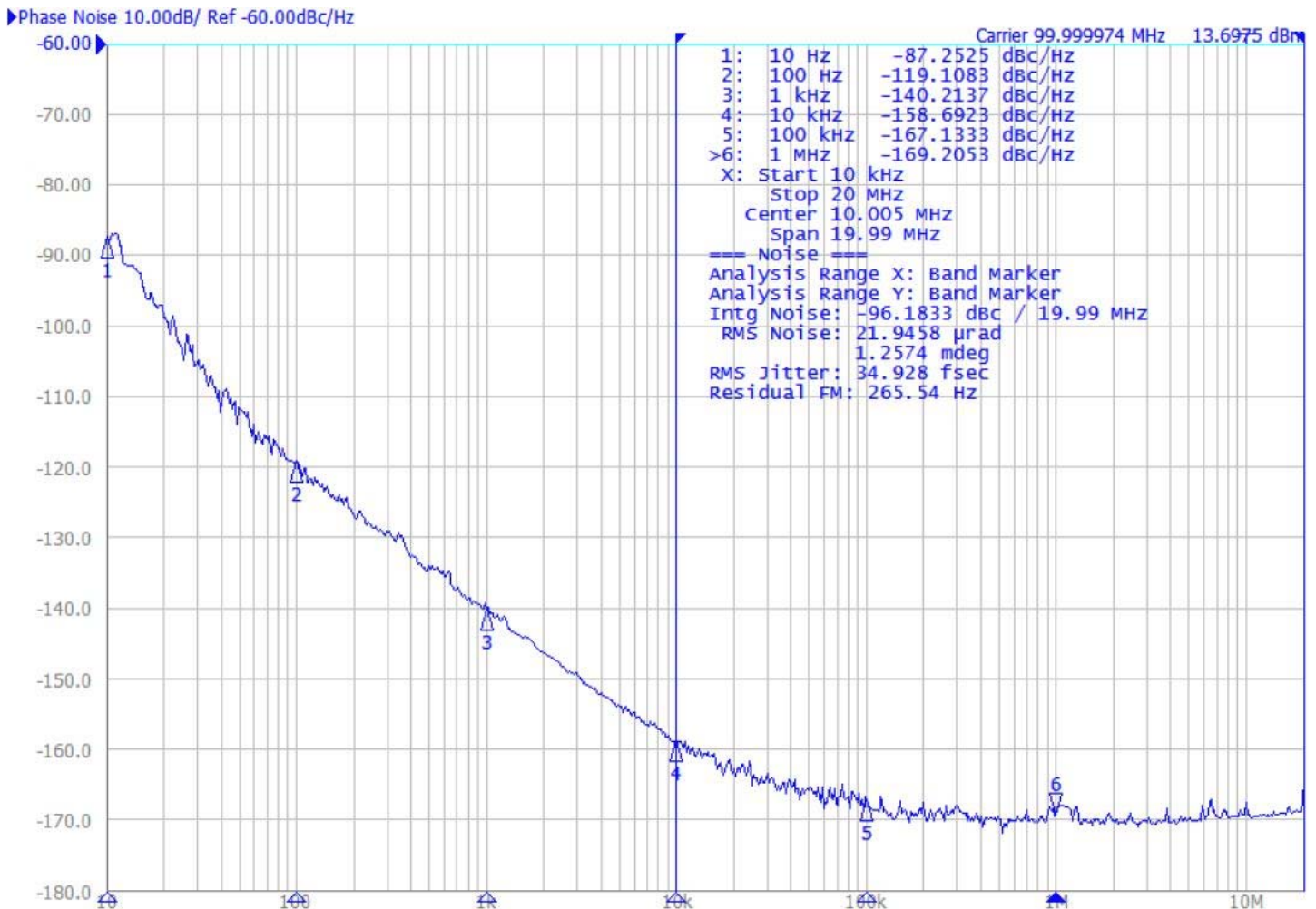
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		100.000000		MHz	
Frequency Stabilities						
Absolute Pull Range (APR)		+/-20			ppm	APR = (Pull range) - (degradations due to temperature+aging+power supply+load+ initial tolerance+shock+ vibration)
Aging (1 st Year)				3	ppm	
Aging (after 1 st year)				1	ppm/yr	
RF Output						
Output Type		CMOS				
Output Load			15		pF	
Symmetry		45	50	55		@50% Vdd
Rise/Fall time			3		nsec	@ 20% to 80% Vdd
Logic Level “low”				10% Vdd		
Logic Level “High”		90% Vdd				
Frequency Adjustment						
Adjustment Method		External Voltage				
Adjustment Voltage	V _{TUNE}	0	1.65	3.3	V _{DC}	
Tuning Sensitivity			±25		ppm/V	
Linearity				5%		
Modulation Bandwidth		10			KHz	
Input Impedance			50		Kohm	
Adjustment Slope		Positive				
Additional Parameters						
Phase Noise			-140		dBc/Hz	1kHz Offset
			-155			10kHz Offset
			-164			100kHz Offset
			-166			1MHz Offset
Integrated Jitter			40		fsec	12 kHz to 20 MHz
Sub-harmonics			None			
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+85	°C	Full Specification Compliance
Storage Temperature	STR	-55		+125	°C	
Operating Voltage	V _{dd}	3.0	3.3	3.6	V _{DC}	
Input Current				35	mA	

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Mechanical and Environmental Conditions:

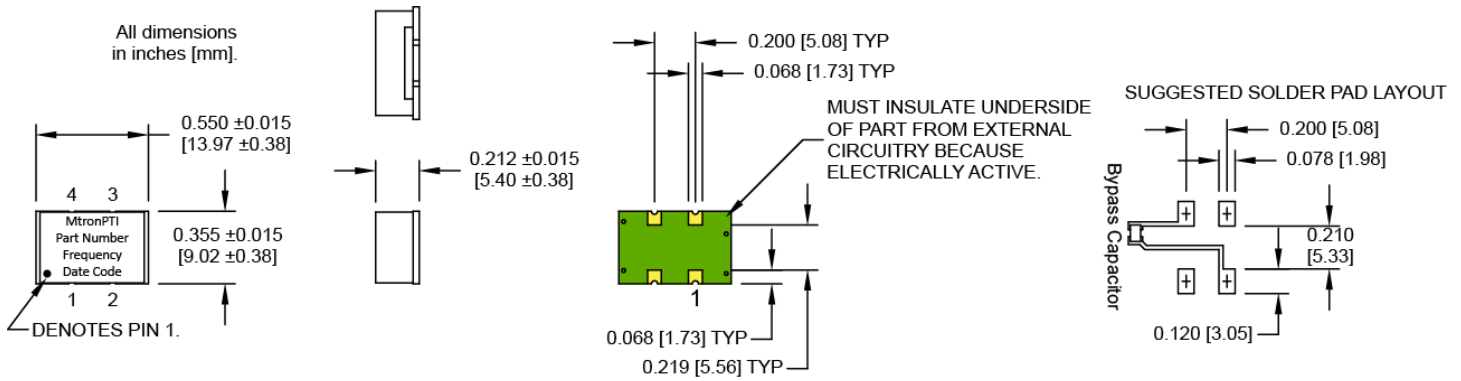
RoHS	Full RoHS Compliance
Shock	MIL-STD-883 TM 2002, Cond B
Vibration	MIL-STD-883 TM 2007, Cond A
Solderability	Per EIAJ-STD-002
Solvent Resistance	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition I or J
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004

Representative Phase Noise Plot:



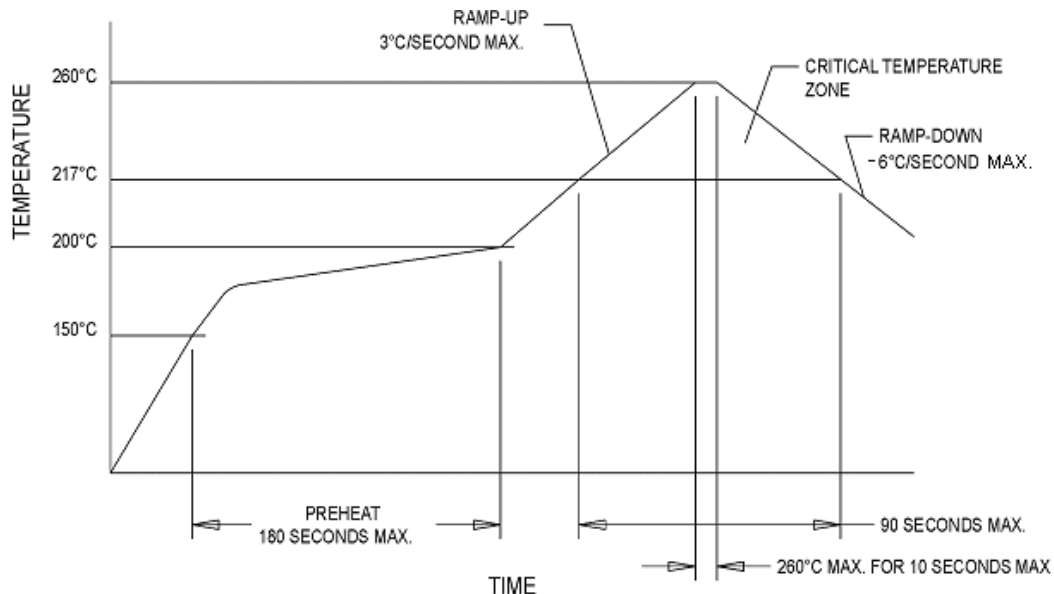
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Outline Marking and Pin-out:



Pad	Function
1	Control Voltage
2	Ground
3	Output
4	+V _{DD}

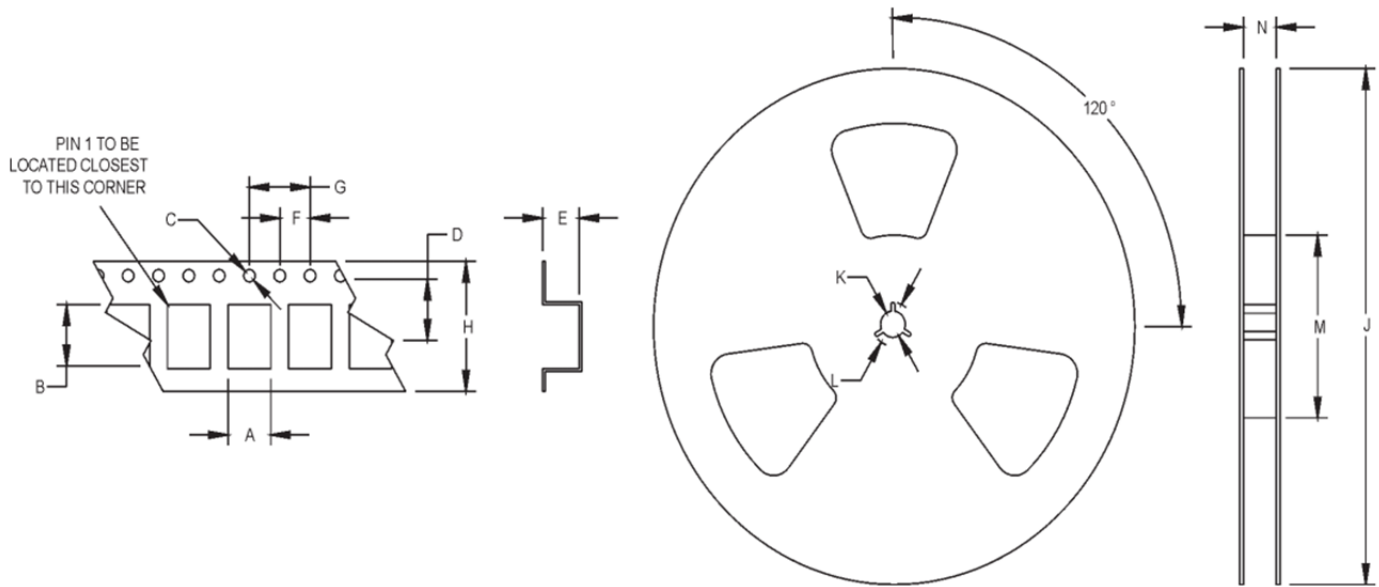
Recommended Reflow Profile:



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Tape and Reel:

All units in mm



Tape and Reel Specifications											
A	B	C	D	E	F	G	H	J	K	L	M
9.65	15.24	1.5	11.5	6.73	4	16	24	330	6.5		100

Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
05-05-16	B	MM	Image Updates
04-27-16	A	DPD	Original Draft.