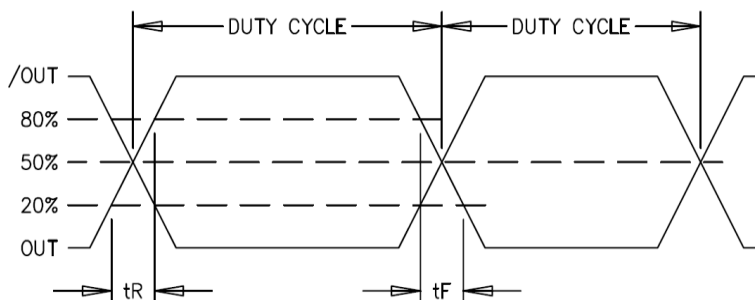


# SPECIFICATION FOR SELECTABLE FOUR-FREQUENCY LVPECL SMT OSCILLATOR MtronPTI P/N: M2140S023

## Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency 1	F <sub>1</sub>		108.1000000		MHz	
Frequency 2	F <sub>2</sub>		113.0000000		MHz	
Frequency 3	F <sub>3</sub>		75.0000000		MHz	
Frequency 4	F <sub>4</sub>		332.0000000		MHz	
<b>Frequency Stability</b>						
Frequency Stability	$\Delta F/F$	-50		+50	ppm	Deviation over operating temperature.
<b>RF Output</b>						
Output Type		LVPECL Compatible				
Output Load		50 $\Omega$ to (V <sub>CC</sub> -2) VDC			V	
Symmetry (duty cycle)	T <sub>DC</sub>	45		55	%	Ref. to 50% of waveform
Logic Level "1"		V <sub>CC</sub> -1.02			V	
Logic Level "0"				V <sub>CC</sub> -1.63	V	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			0.35	nS	From 20% to 80% V <sub>DD</sub>
Start-up Time	T <sub>SU</sub>			10	mS	T <sub>amb</sub> = +25°C
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>CC</sub>	3.135	3.3	3.465	V	
Supply Current	I <sub>CC</sub>			130	mA	

## Output Waveform:



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## Environmental & Packaging Requirements:

Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-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 <sup>-8</sup> atm cc/s of Helium)					
Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	9-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

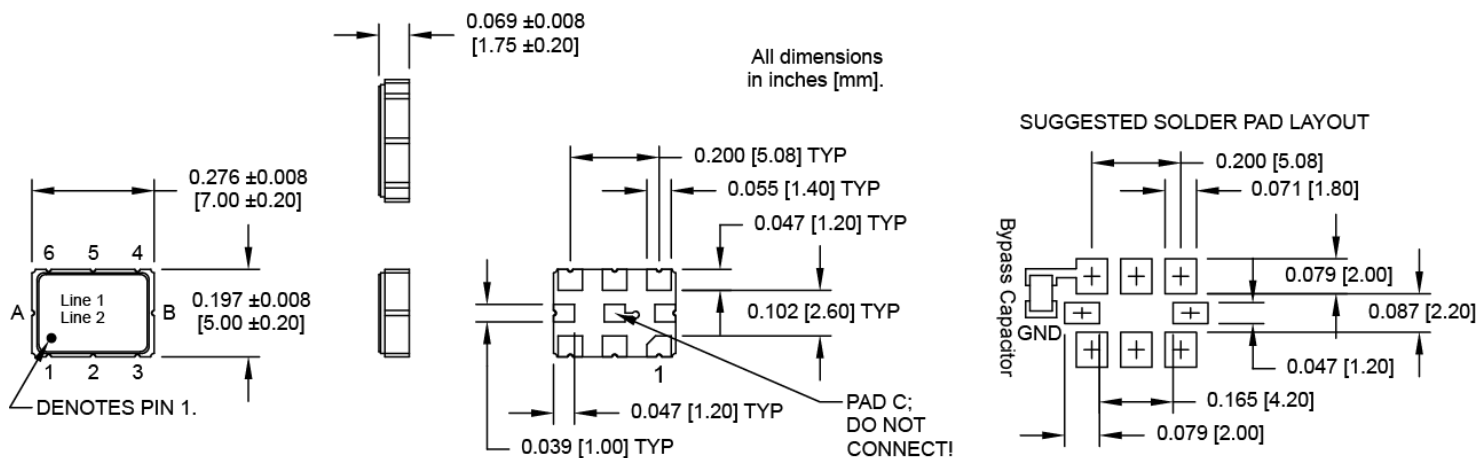
## Dimensions, Marking, Pin Out:

Pad	Function
1	N/C
2	N/C
3	Ground
4	Output
5	Complimentary Output
6	+V <sub>CC</sub>
A	FS0
B	FS1
C	Do Not Use

Part Marking	
Line 1	M2140S023
Line 2	MPTI yyww

Legend	
yy	Year
ww	Work Week

FREQUENCY SELECTION TRUTH TABLE		
	FS1	FS0
F1	"HIGH"	"HIGH"
F2	"HIGH"	"LOW"
F3	"LOW"	"HIGH"
F4	"LOW"	"LOW"



# SPECIFICATION FOR SELECTABLE FOUR-FREQUENCY LVPECL SMT OSCILLATOR MtronPTI P/N: M2140S023

## Soldering Conditions:

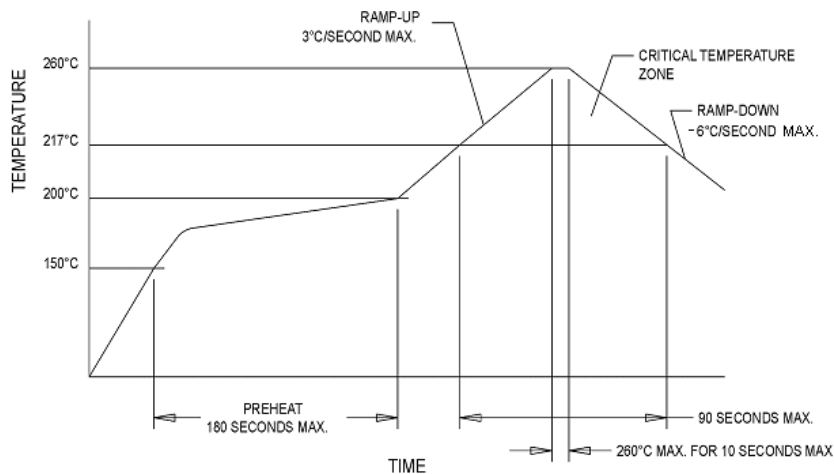


Figure 1

## Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/15/15	0	MM	Original release.