

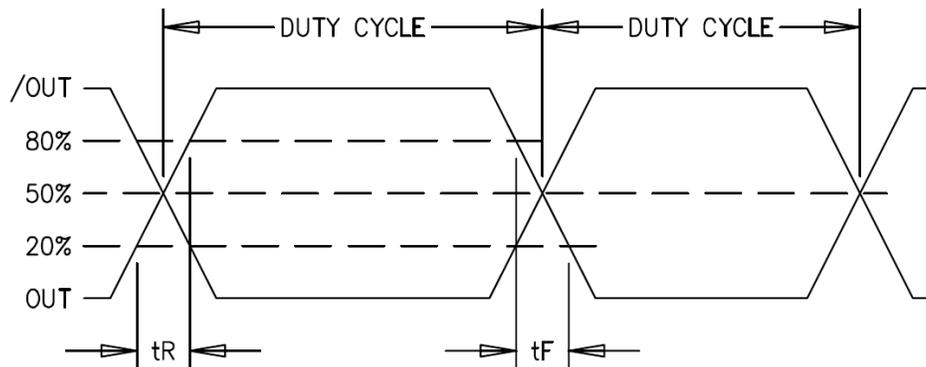
**SPECIFICATION FOR 2.5x3.2mm LVPECL SMT OSCILLATOR**  
**MtronPTI P/N: M2065S009**

**Electrical Specifications:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		50.000000		MHz	
<b>Frequency Stability</b>						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial tolerance @ +25°C, deviation over operating temperature, variations to supply voltage, load, vibration, shock and aging.
Aging		-5		+5	ppm	1 <sup>st</sup> year
<b>RF Output</b>						
Output Type		LVPECL Compatible				
Output Load		50 Ω to (V <sub>CC</sub> -2.0) V <sub>DC</sub>			V	
Symmetry (duty cycle)	V <sub>OH</sub>	45	50	55	%	Ref. to 50% of waveform
Logic Level "1"	V <sub>OH</sub>	V <sub>CC</sub> -1.025			V	
Logic Level "0"	T <sub>DC</sub>			V <sub>CC</sub> -1.620	V	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			1.0	ns	20% to 80% of waveform
Enable Logic		70% V <sub>CC</sub> or N/C			V	Pad 1: Output Enabled
Disable Logic				30% V <sub>CC</sub>	V	Pad 1: Output Disabled to high-Z
Start-up Time	T <sub>SU</sub>			10	ms	T <sub>ambient</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>			60	mA	
<b>Other Parameters</b>						
Phase Jitter (RMS)	Φ <sub>J</sub>			1.00	pS	12 KHz to 20 MHz

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**Output Waveform:**



**Environmental & Packaging Requirements:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
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, 1/2 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	2.50 mm (typ) X 3.20 mm (typ) X 1.10 (max) mm 6-pad leadless ceramic. RoHS compliant.					

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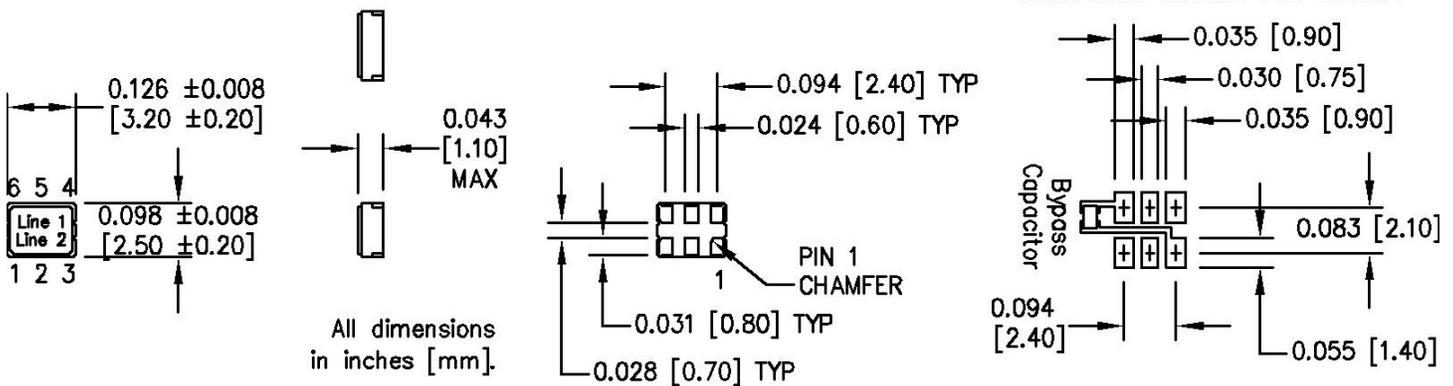
### Marking, Pin Out:

Pad	Function
1	Enable/Disable
2	N/C
3	Ground
4	Output
5	Complementary Output
6	+V <sub>CC</sub>

Part Marking	
Line 1	50M0000
Line 2	M yy ww vv

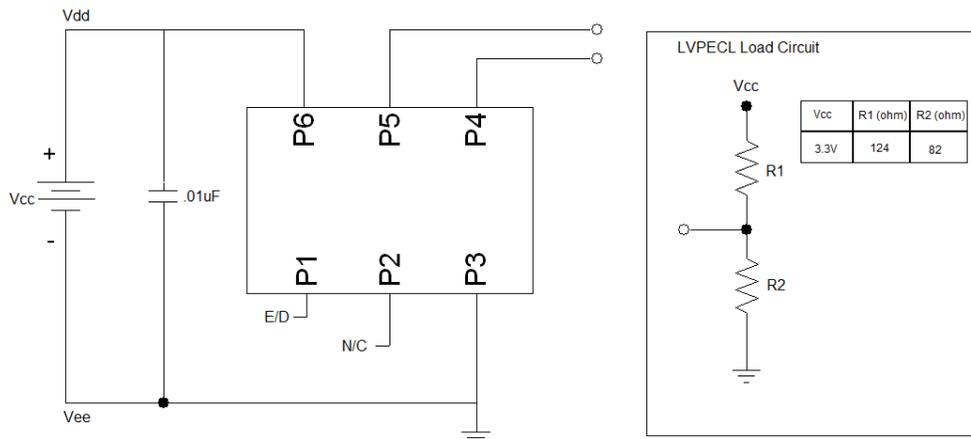
Legend	
yy	Year
ww	Work week
vv	Factory code

### Dimensions:

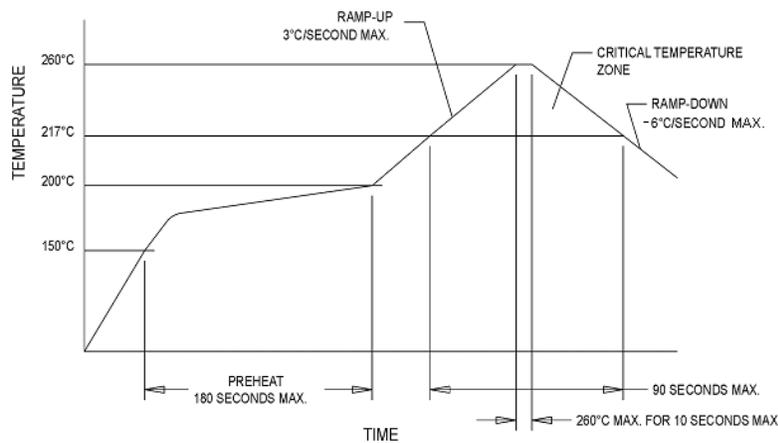


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### Typical Test Circuit & Load Circuit Diagrams:



### Soldering Conditions:



**Figure 1**

### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
12/15/17	0	MM	Original release.