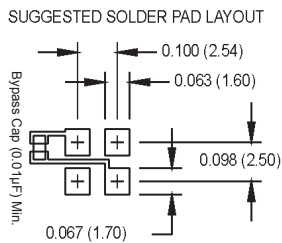
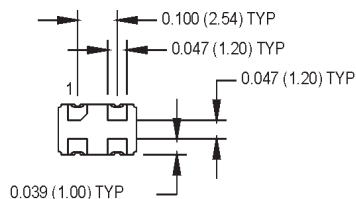
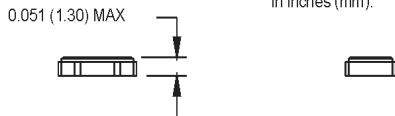
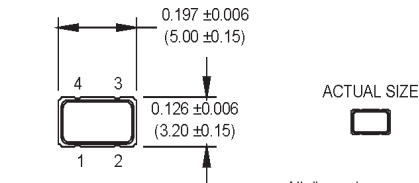


# M2030 through M2034 Series

## 3.2 x 5.0 x 1.3 mm, HCMOS Compatible, Surface Mount Oscillators

### Features

- Down to  $\pm 20$  ppm stability
- Tristate or Standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



### Pin Connections

PIN	Function
1	Standby/Tristate
2	Ground
3	Output
4	+V <sub>DD</sub>

### Ordering Information

	M2034	2	3	T	C	N	00.0000 MHz
<b>Product Series</b>							
M2030 = 1.8 V							
M2031 = 2.5 V							
M2032 = 2.85 V							
M2033 = 3.0 V							
M2034 = 3.3 V							
<b>Temperature Range</b>							
D: -10 °C to +70 °C	2: -40 °C to +85 °C						
6: -20 °C to +70 °C							
<b>Stability</b>							
3: $\pm 100$ ppm	4: $\pm 50$ ppm		5: $\pm 35$ ppm				
	8: $\pm 20$ ppm*						
<b>Output Type</b>							
Q: Standby Function	T: Tristate						
<b>Symmetry (Duty Cycle)</b>							
C: 45/55 CMOS	G: 40/60 CMOS						
<b>Package/Lead Configurations</b>							
N: Leadless							
<b>Frequency (customer specified)</b>							

M2030Sxxx, M2031Sxxx, M2032Sxxx, M2033Sxxx & M2034Sxxx - Custom datasheets.

\* (-10 °C to +70 °C only)

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency Range	F <sub>O</sub>	1.5		80	MHz	See Note 1
Frequency Stability	$\Delta F/F$	(See Ordering Information)			ppm	See Note 2
Operating Temperature	T <sub>A</sub>	(See Ordering Information)			°C	
Input Voltage	V <sub>DD</sub>	1.7	1.8	1.9	V	1.8 V
		2.38	2.5	2.62	V	2.5 V
		2.7	2.85	3.0	V	2.85 V
		2.85	3.0	3.15	V	3.0 V
		3.15	3.3	3.45	V	3.3 V
Input Current	I <sub>DD</sub>			15	mA	V <sub>DD</sub> = 3.3 V
1.500 MHz to 20.000 MHz				20	mA	V <sub>DD</sub> = 3.3 V
20.001 MHz to 50.000 MHz				45	mA	V <sub>DD</sub> = 3.3 V
50.001 MHz to 80.000 MHz						
Symmetry (Duty Cycle)		45	50	55	%	1/2 V <sub>DD</sub>
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			6	ns	10% to 90% V <sub>DD</sub>
1.5 MHz to 50.0 MHz				4	ns	10% to 90% V <sub>DD</sub>
> 50.0 MHz						
Logic "1" Level	V <sub>OH</sub>	90			% V <sub>DD</sub>	
Logic "0" Level	V <sub>OL</sub>			10	% V <sub>DD</sub>	
Output Current	I <sub>OH</sub>	-2			mA	
	I <sub>OL</sub>	+2			mA	
Output Load				15	pF	
Startup Time			5	10	ms	
Standby Current				10	μA	
Standby/Tristate Function		Pin 1 High (80% V <sub>DD</sub> min) or Floating: Clock Signal Output Pin 1 Low (20% V <sub>DD</sub> max): Output Disables to High Impedance				
Output Disable Time				150	ns	
Output Enable Time				5	ms	
<b>Environmental</b>	Shock	MIL-STD-202, Method 213, Condition C (100 g)				
	Vibration	MIL-STD-202, Methods 201 & 204 (10 g from 10 Hz to 2000 Hz)				
	Max Soldering Conditions	+260 °C for 10 seconds maximum				
	Solderability	Per EIAJ-STD-002				
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm.cc/s of helium)				

1. Consult factory for available frequencies in this range.

2. Inclusive of calibration, deviation over temperature, supply voltage change, load change, shock, vibration, and aging.

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Please see [www.mtronpti.com](http://www.mtronpti.com) for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

# MtronPTI Lead Free Solder Profile



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