## M2032, M2033, and M2034 Series 3.2 x 5.0 x 1.3 mm HCMOS Compatible Surface Mount Oscillators



• ±20 ppm stability

4 3

0.051 (1.30) MAX

0.039 (1.00) TYP

1+

0.067 (1.70)

PIN

1

3

4

SUGGESTED SOLDER PAD LAYOUT

- Tri-state or standby function
- Ideal for WLAN and IEEE802.11
  Applications
- Low power applications

0.197 ±0.006 (5.00 ±0.15)

0.126 ±0.006 (3.20 ±0.15)

- 0.100 (2.54) TYP - 0.047 (1.20) TYP

0.100 (2.54) - 0.063 (1.60)

Pin Connections

Function

Ground

Output

+Vdd

Standby/Tristate

0.098 (2.50)

ACTUAL SIZE

All dimensions in inches (mm).

0.047 (1.20) TYP



Ordering Information									
M203X	D	8	Q	С	Ν	00.0000 MHz			
Product Series        M2032 = 2.85V        M2033 = 3.0V        M2034 = 3.3V        Temperature Range        D: -10°C to +70°C        6: -20°C to +70°C        2: -40°C to +85°C        Stability        3: ±100 ppm      4: ±50 ppi        6: ±25 ppm      8: ±20 ppi									
Output Type Q: Standby Function T: Tri	state								
Symmetry/Logic Compatibilit C: 45/55 CMOS G: 40	y /60 CMOS	3							
Package/Lead Configurations N: Leadless	;   —								
Frequency (customer specified	ed) ——								

	PARAMETER	Symbol	Min.	Тур.	Max.	Units.	Condition		
	Frequency Range	F	1.5		80	MHz	See Note 1		
	Frequency Stability	ΔF/F			±20	ppm	See Note 2		
	Operating Temperature	TA	(See Order						
	Input Voltage	Vdd	3.15	3.3	3.45	V	3.3V		
			2.85	3.0	3.15	V	3.0V		
			2.7	2.85	3.0	V	2.8V		
	Input Current	ldd							
S	1.500 to 20.000 MHz				15	mA	3.3V		
ī	20.001 to 50.000 MHz				20	mA			
cat	50.001 to 80.000 MHz				45	mA			
Specifications	Symmetry (Duty Cycle)		45		55	%	1/2 Vdd		
) ec	Rise/Fall Time	Tr/Tf							
	22.000 to 44.000 MHz				6	ns	10% to 90% Vdd		
a	80.000 MHz				4	ns	10% to 90% Vdd		
Electrical	Logic "1" Level	Voh	90% Vdd			V			
ec	Logic "0" Level	Vol			10% Vdd	V			
Ξ	Output Current	loh	-2			mA			
		Lol	+2			mA			
	Output Load				15	pF			
	Start-up Time				5	ms			
	Standby Current				10	ms			
	Standby/Tristate Function	Pin 1 high or floating: clock signal output							
		Pin 1 low: output disables to high impedance							
	Output Disable Time				150	ns			
	Output Enable Time				5	ms			
-									
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C							
μe	Vibration	Per MIL-STD-202, Method 201 & 204							
Ē	Reflow Solder Conditions	240°C for 10 s max							
<u></u>	Hermeticity	Per MIL-STD-202, Method 112 (1 x $10^{-8}$ atm.cc/s of helium)							
اي ا	Solderability	Per EIAJ-STD-002							

1.Consult factory for available frequencies in this range.

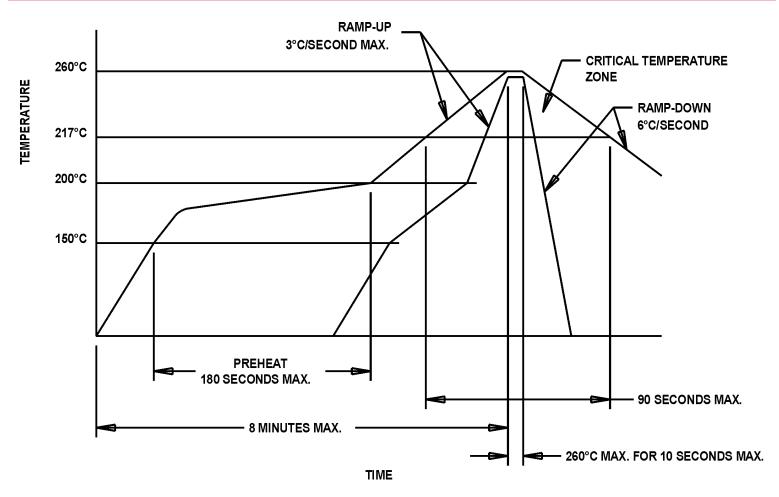
2. Inclusive of calibration, deviation over temperature, supply voltage change, load change, shock, vibration, and 10 years aging

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

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## **MtronPTI Lead Free Solder Profile**



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