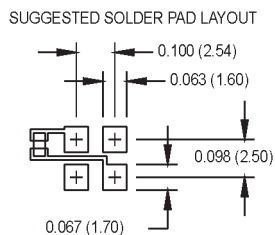
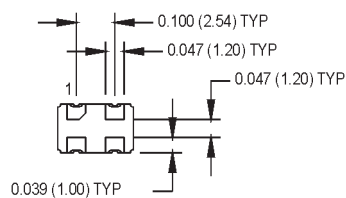
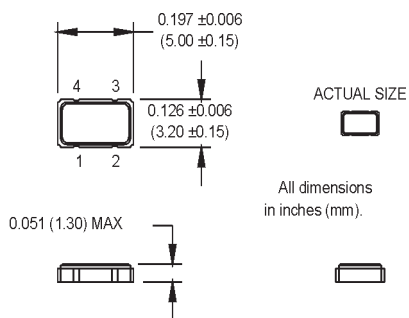


M2032, M2033, and M2034 Series 3.2 x 5.0 x 1.3 mm HCMOS Compatible Surface Mount Oscillators



- ± 20 ppm stability
- Tri-state 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	+Vdd

Ordering Information

M203X	D	8	Q	C	N	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 ppm						
6: ± 25 ppm						
8: ± 20 ppm **						
Output Type						
Q: Standby Function T: Tristate						
Symmetry/Logic Compatibility						
C: 45/55 CMOS G: 40/60 CMOS						
Package/Lead Configurations						
N: Leadless						
Frequency (customer specified)						

PARAMETER	Symbol	Min.	Typ.	Max.	Units.	Condition
Frequency Range	F	1.5		80	MHz	See Note 1
Frequency Stability	$\Delta F/F$			± 20	ppm	See Note 2
Operating Temperature	T _A	(See Ordering Information)				
Input Voltage	V _{dd}	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	I _{dd}			15	mA	3.3V
1.500 to 20.000 MHz				20	mA	
20.001 to 50.000 MHz				45	mA	
50.001 to 80.000 MHz						
Symmetry (Duty Cycle)		45		55	%	1/2 V _{dd}
Rise/Fall Time	T _r /T _f			6	ns	10% to 90% V _{dd}
22.000 to 44.000 MHz				4	ns	10% to 90% V _{dd}
80.000 MHz						
Logic "1" Level	V _{oh}	90% V _{dd}			V	
Logic "0" Level	V _{ol}			10% V _{dd}	V	
Output Current	I _{oh}	-2			mA	
	I _{ol}	+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					
Vibration	Per MIL-STD-202, Method 201 & 204					
Reflow Solder Conditions	240°C for 10 s max					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm.cc/s of helium)					
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

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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

Revision D: 1-3-06