

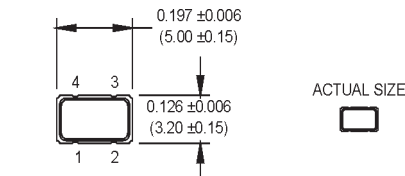
M2032, M2033, and M2034 Series 3.2 x 5.0 x 1.3 mm HCMOS Compatible Surface Mount Oscillators



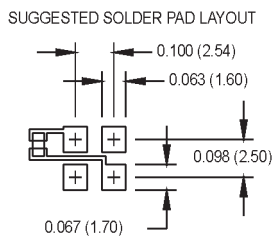
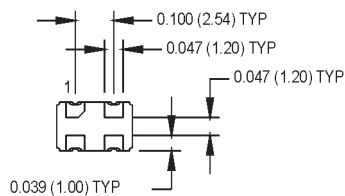
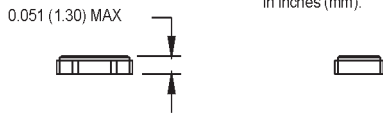
- ± 20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



Ordering Information		00.0000 MHz	
Product Series	M203X	D	8 Q C N
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)			



ACTUAL SIZE
All dimensions in inches (mm).



Pin Connections

PIN	Function
1	Standby/Tristate
2	Ground
3	Output
4	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units.	Condition	
Electrical Specifications	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	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	Idd	1.500 to 20.000 MHz			15	mA	3.3V
			20.001 to 50.000 MHz			20	mA	
			50.001 to 80.000 MHz			45	mA	
	Symmetry (Duty Cycle)		45		55	%	$\frac{1}{2}$ Vdd	
	Rise/Fall Time	Tr/Tf	22.000 to 44.000 MHz			6	ns	10% to 90% Vdd
			80.000 MHz			4	ns	10% to 90% Vdd
	Logic "1" Level	Voh	90% Vdd				V	
	Logic "0" Level	Vol			10% Vdd		V	
	Output Current	Ioh	-2				mA	
		Iol	+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 ⁻⁵ 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.