

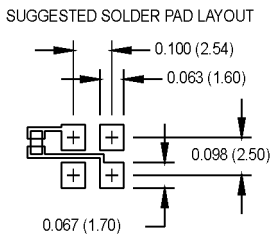
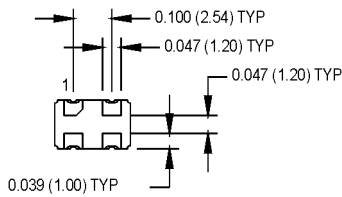
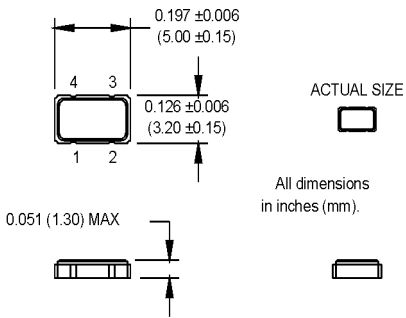
M2032, M2033, and M2034 Series

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	
Product Series	M203X D 8 Q C N 00.0000 MHz
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)	



Pin Connections

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

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	
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

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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.

MtronPTI Lead Free Solder Profile

