

M2032, M2033, and M2034 Series

3.2 x 5.0 x 1.3 mm HCMOS Compatible Surface Mount Oscillators



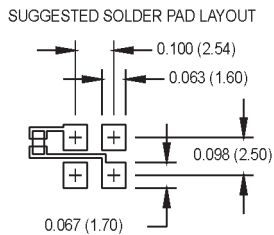
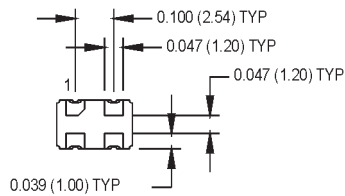
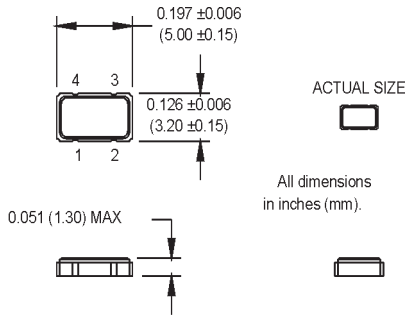
- ±20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



Ordering Information

	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 6: ±25 ppm	4: ±50 ppm 8: ±20 ppm **	5: ±35 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)							

M2034S021 datasheet - Contact Factory
**-10°C to +70°C only



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	ΔF/F			±20	ppm	See Note 2
Operating Temperature	T _A	(See Ordering Information)				
Input Voltage	V _{dd}	3.15 2.85 2.7	3.3 3.0 2.85	3.45 3.15 3.0	V V V	3.3V 3.0V 2.8V
Input Current	I _{dd}			15 20 45	mA mA mA	3.3V
1.500 to 20.000 MHz 20.001 to 50.000 MHz 50.001 to 80.000 MHz						
Symmetry (Duty Cycle)		45		55	%	½ V _{dd}
Rise/Fall Time	T _r /T _f			6 4	ns ns	10% to 90% V _{dd} 10% to 90% V _{dd}
22.000 to 44.000 MHz 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} I _{ol}	-2 +2			mA mA	
Output Load				15	pF	
Start-up Time			5	10	ms	
Standby Current				10	μA	
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	+260°C for 10 seconds maximum					
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.

Revision: 7-9-08

MtronPTI Lead Free Solder Profile

