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

RoHS Compliant

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

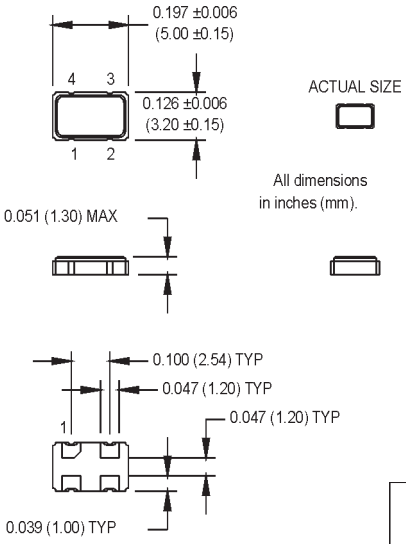
Stability
3: ±100 ppm 4: ±50 ppm
6: ±25 ppm 8: ±20 ppm **

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)



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	ΔF/F			±20	ppm	See Note 2
	Operating Temperature	TA	(See Ordering Information)				
	Input Voltage	Vdd	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 1.500 to 20.000 MHz 20.001 to 50.000 MHz 50.001 to 80.000 MHz	Idd			 15 20 45	 mA mA mA	 3.3V
	Symmetry (Duty Cycle)		45		55	%	½ Vdd
	Rise/Fall Time 22.000 to 44.000 MHz 80.000 MHz	Tr/Tf			 6 4	 ns ns	 10% to 90% Vdd 10% to 90% Vdd
	Logic "1" Level	Voh	90% Vdd			V	
	Logic "0" Level	Vol			10% Vdd	V	
	Output Current	Ioh Iol	-2 +2			mA 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