

M2035, M2036, and M2037 Series

5.0 x 7.0 x 1.4 mm, HCMOS Compatible Surface Mount Oscillators



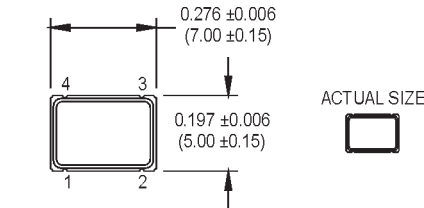
- ± 20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



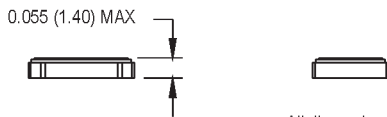
Ordering Information

	M203X	D	8	Q	C	N	00.0000 MHz
Product Series	M2035 = 2.85V M2036 = 3.0V M2037 = 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*					
Output Type	Q: Standby Function T: Tri-state						
Symmetry/Logic Compatibility	C: 45/55 HCMOS G: 40/60 HCMOS						
Package/Lead Configurations	N: Leadless						
Frequency (customer specified)							

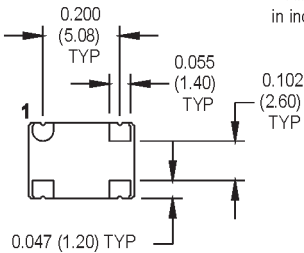
*-10°C to +70°C only



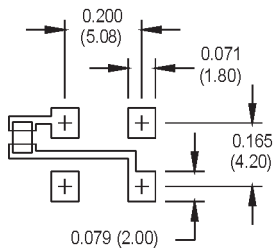
ACTUAL SIZE



All dimensions in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	Tri-state/Standby
2	Ground
3	Output
4	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	1.5		125	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	2.85V
	Input Current	I _{dd}			15	mA	3.3V
					20	mA	
					30	mA	
					55	mA	
	Symmetry (Duty Cycle)		45		55	%	1/2 V _{dd}
	Rise/Fall Time	Tr/Tf			4	ns	See Note 2
					6	ns	10% to 90% V _{dd}
							10% to 90% V _{dd}
	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	
Environmental	Output Load				15	pF	
	Start-up Time				5	ms	
	Standby Current				10	μA	
	Tri-State/Standby 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	+260°C for 10 seconds max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻³ atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

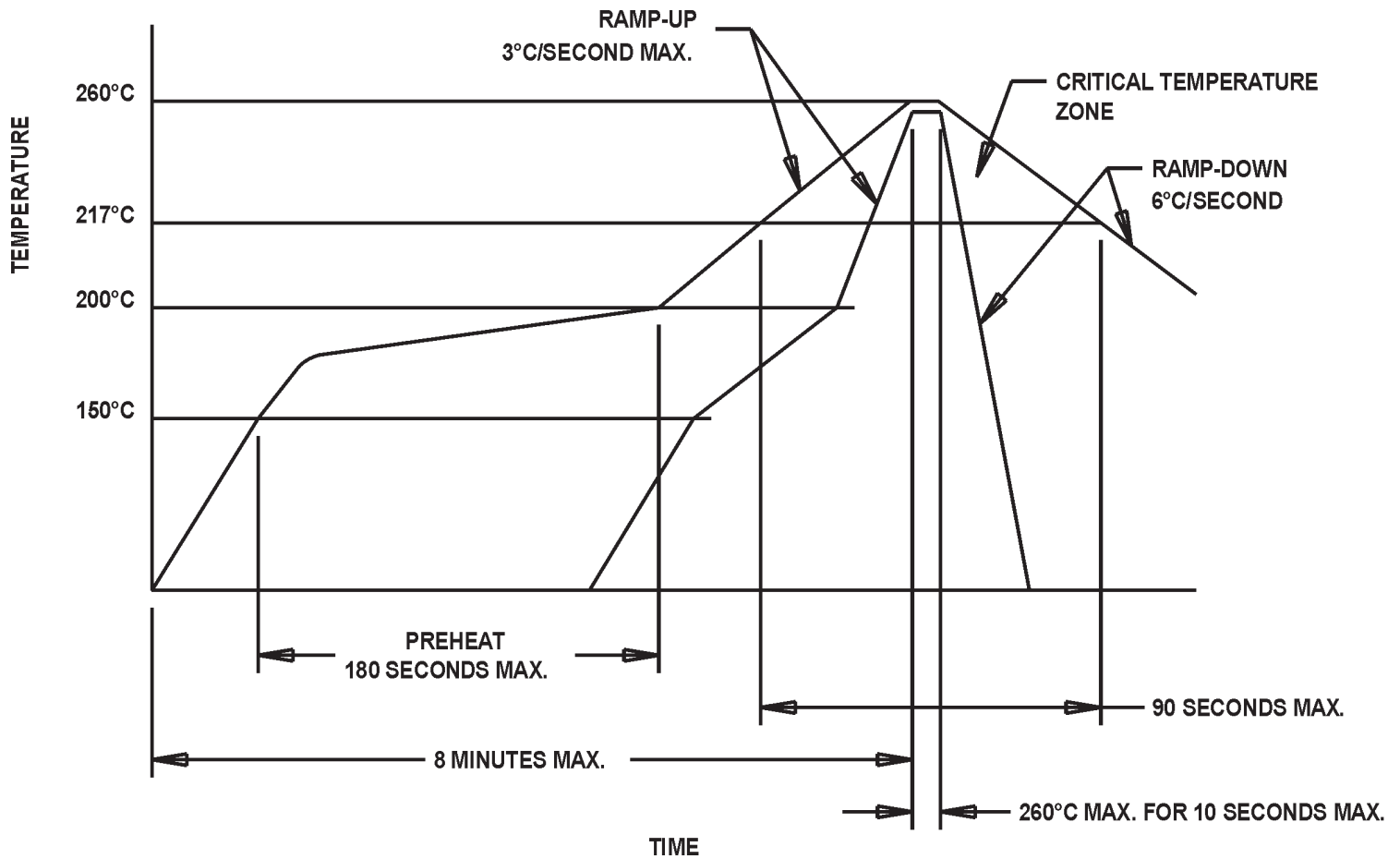
1. Consult factory for available frequencies in this range
2. Inclusive of calibration, deviation over temperature, supply voltage change, load change, shock, vibration, and 10 years aging.

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Revision: 11-17-06

MtronPTI Lead Free Solder Profile



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