

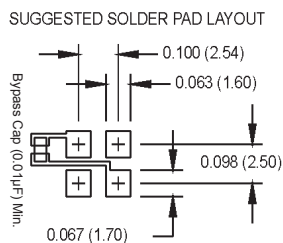
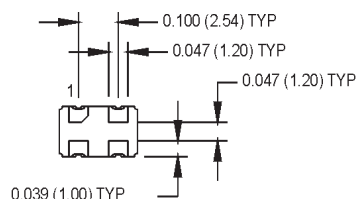
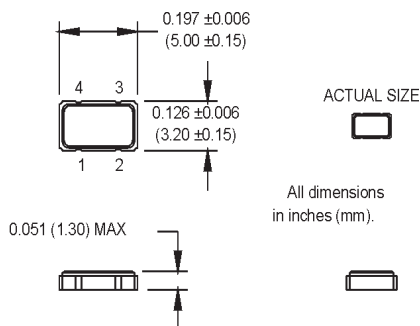
M2030 through M2034 Series

3.2 x 5.0 x 1.3 mm, HCMOS Compatible, Surface Mount Oscillators



Features

- Down to ± 20 ppm stability
- Tristate or Standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



Pin Connections

PIN	Function
1	Standby/Tristate
2	Ground
3	Output
4	+V _{DD}

Ordering Information

	M2034	2	3	T	C	N	00.0000 MHz
Product Series							
M2030 = 1.8 V							
M2031 = 2.5 V							
M2032 = 2.85 V							
M2033 = 3.0 V							
M2034 = 3.3 V							
Temperature Range							
D: -10 °C to +70 °C							
2: -40 °C to +85 °C							
6: -20 °C to +70 °C							
Stability							
3: ± 100 ppm							
4: ± 50 ppm							
5: ± 35 ppm							
8: ± 20 ppm*							
Output Type							
Q: Standby Function							
T: Tristate							
Symmetry (Duty Cycle)							
C: 45/55 CMOS							
G: 40/60 CMOS							
Package/Lead Configurations							
N: Leadless							
Frequency (customer specified)							

M2030Sxxx, M2031Sxxx, M2032Sxxx, M2033Sxxx & M2034Sxxx - Custom datasheets.

* (-10 °C to +70 °C only)

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency Range	F _O	1.5		80	MHz	See Note 1
Frequency Stability	$\Delta F/F$	(See Ordering Information)			ppm	See Note 2
Operating Temperature	T _A	(See Ordering Information)			°C	
Input Voltage	V _{DD}	1.7	1.8	1.9	V	1.8 V
		2.38	2.5	2.62	V	2.5 V
		2.7	2.85	3.0	V	2.85 V
		2.85	3.0	3.15	V	3.0 V
		3.15	3.3	3.45	V	3.3 V
Input Current	I _{DD}			15	mA	V _{DD} = 3.3 V
1.500 MHz to 20.000 MHz				20	mA	V _{DD} = 3.3 V
20.001 MHz to 50.000 MHz				45	mA	V _{DD} = 3.3 V
50.001 MHz to 80.000 MHz						
Symmetry (Duty Cycle)		45	50	55	%	1/2 V _{DD}
Rise/Fall Time	T _R /T _F			6	ns	10% to 90% V _{DD}
1.5 MHz to 50.0 MHz				4	ns	10% to 90% V _{DD}
> 50.0 MHz						
Logic "1" Level	V _{OH}	90			% V _{DD}	
Logic "0" Level	V _{OL}			10	% V _{DD}	
Output Current	I _{OH}	-2			mA	
	I _{OL}	+2			mA	
Output Load				15	pF	
Startup Time			5	10	ms	
Standby Current				10	μA	
Standby/Tristate Function		Pin 1 High (80% V _{DD} min) or Floating: Clock Signal Output Pin 1 Low (20% V _{DD} max): Output Disables to High Impedance				
Output Disable Time				150	ns	
Output Enable Time				5	ms	
Shock	MIL-STD-202, Method 213, Condition C (100 g)					
Vibration	MIL-STD-202, Methods 201 & 204 (10 g from 10 Hz to 2000 Hz)					
Max Soldering Conditions	+260 °C for 10 seconds maximum					
Solderability	Per EIAJ-STD-002					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm.cc/s of helium)					

1. Consult factory for available frequencies in this range.

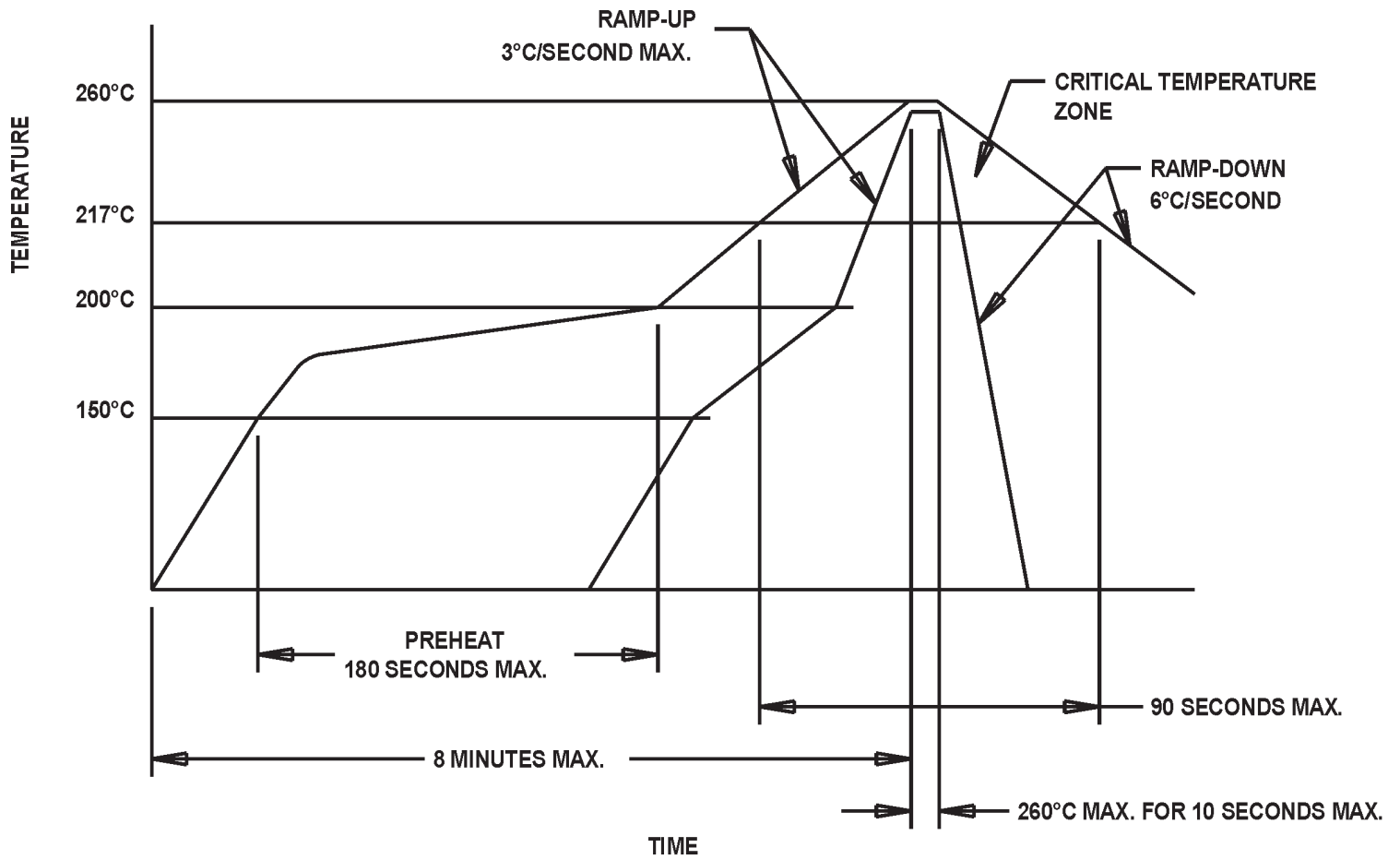
2. Inclusive of calibration, deviation over temperature, supply voltage change, load change, shock, vibration, and aging.

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MtronPTI Lead Free Solder Profile



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