

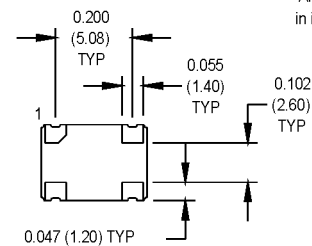
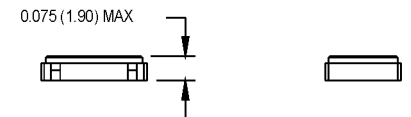
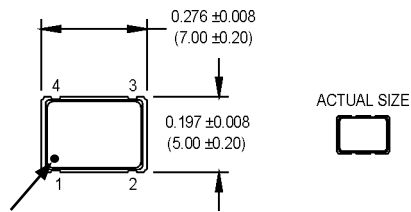
# M3 Series

5x7 mm, 3.3 Volt, HCMOS/TTL, Surface Mount Oscillator

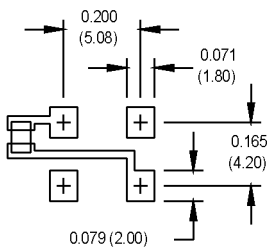
**THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.  
PLEASE REFER TO THE M2 PRODUCT SERIES.**



- AT-strip crystal in a miniature ceramic surface mount package
- TTL and HCMOS compatible
- Tri-state output is optional



SUGGESTED SOLDER PAD LAYOUT



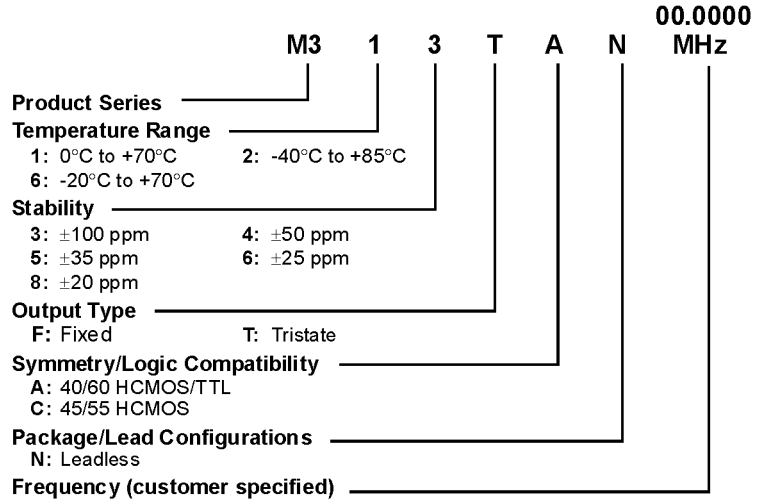
**NOTE:** A capacitor of value 0.01  $\mu$ F or greater between Vdd and Ground is recommended.

PIN	FUNCTION
1	N/C or Tri-state
2	Ground
3	Output
4	+Vdd

### Tri-state Control Logic

Pin 1 high or floating: clock signal output.  
Pin 1 low: output disabled to high impedance.

### Ordering Information



### Electrical Specifications

Standard Operating Conditions • 0°C to +70°C; Vdd = 3.3  $\pm$ 10% VDC

Storage Temperature • -55°C to +125°C

PARAMETERS	TTL Load		HCMOS Load		UNITS
	MIN.	MAX.	MIN.	MAX.	
Frequency Range <sup>1</sup>	1.500	67.000	1.500	67.000	MHz
Output Load <sup>2</sup>		2		15	TTL/pF
Symmetry <sup>3</sup>	40/60	60/40	40/60	60/40	%
Logic "0" Level		0.4		10% Vdd	V
Logic "1" Level	Vdd-0.4		90% Vdd		V
Rise/Fall Time <sup>4</sup>		6		6	nS
Supply Current					
	1.500 to 20.000 MHz	25		25	mA
	20.001 to 67.000 MHz	40		40	mA

<sup>1</sup> Because this product is based on AT-strip technology, not all frequencies in the range stated are available. Contact the factory for availability of specific frequencies.

<sup>2</sup> TTL load - See load circuit diagram #1. HCMOS load - See load circuit diagram #2.

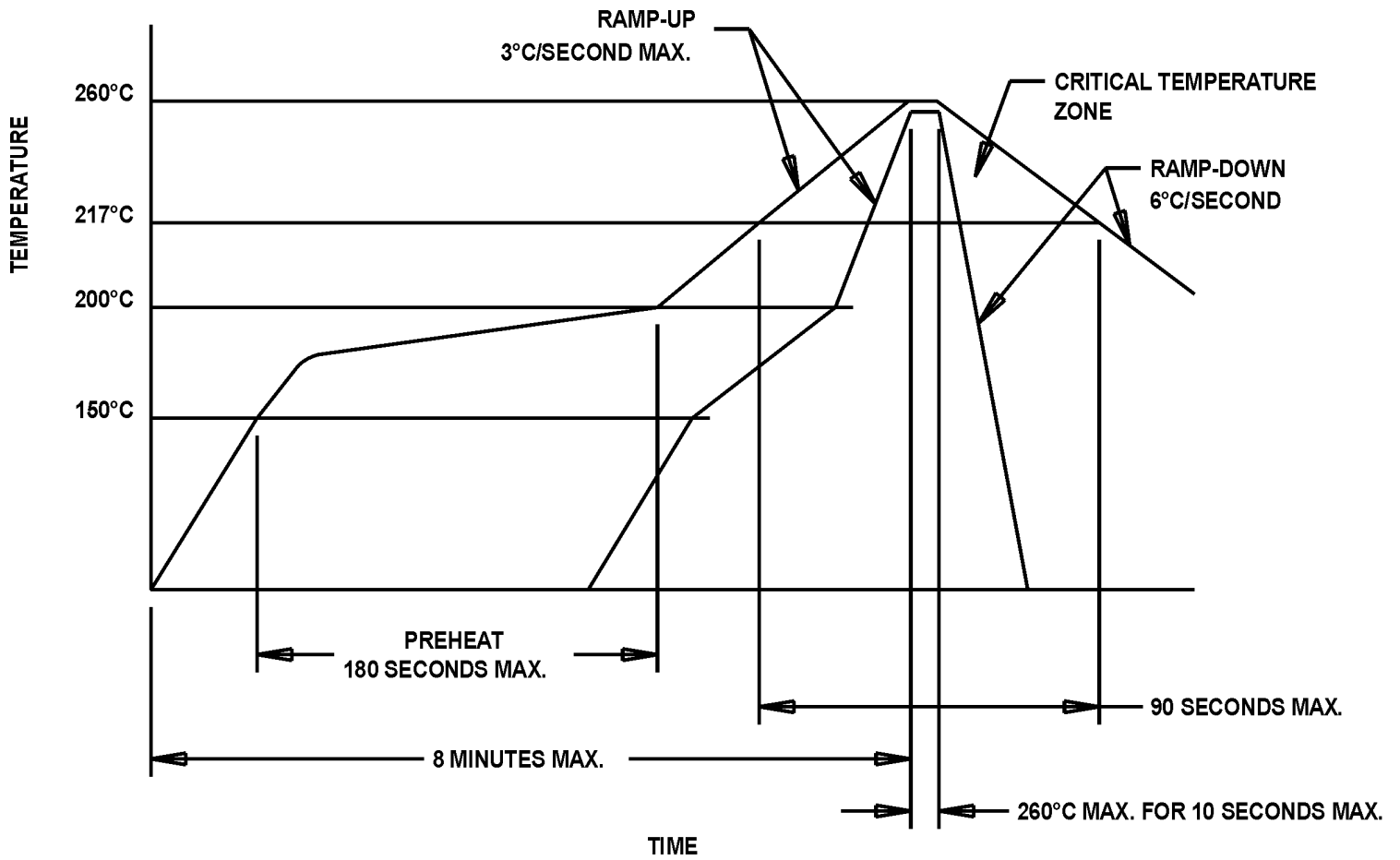
<sup>3</sup> Symmetry is measured at 1.4 V with TTL load, and at 50% Vdd with HCMOS load.

<sup>4</sup> Rise/Fall times are measured between 0.4 V and 2.4 V with TTL load, and between 10% Vdd and 90% Vdd with HCMOS load.

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# MtronPTI Lead Free Solder Profile



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