

M3 Series

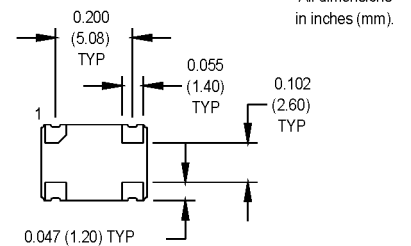
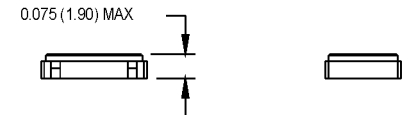
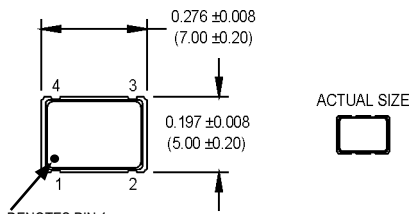
5x7 mm, 3.3 Volt, HCMOS/TTL, Surface Mount Oscillator



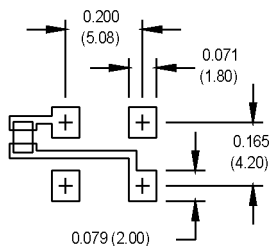
**THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.
PLEASE REFER TO THE M2 PRODUCT SERIES.**



- 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 μ F or greater between Vdd and Ground is recommended.

Ordering Information

	M3	1	3	T	A	N	00.0000 MHz
Product Series							
Temperature Range		1: 0°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 6: ±25 ppm 8: ±20 ppm				
Output Type				F: Fixed T: Tristate			
Symmetry/Logic Compatibility					A: 40/60 HCMOS/TTL C: 45/55 HCMOS		
Package/Lead Configurations						N: Leadless	
Frequency (customer specified)							

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.

Electrical Specifications

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

Storage Temperature • -55°C to +125°C

	TTL Load		HCMOS Load		
PARAMETERS	MIN.	MAX.	MIN.	MAX.	UNITS
Frequency Range ¹	1.500	67.000	1.500	67.000	MHz
Output Load ²		2		15	TTL/pF
Symmetry ³	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 ⁴		6		6	nS
Supply Current					
1.500 to 20.000 MHz		25		25	mA
20.001 to 67.000 MHz		40		40	mA

¹ 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.

² TTL load - See load circuit diagram #1. HCMOS load - See load circuit diagram #2.

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

⁴ 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.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

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MtronPTI Lead Free Solder Profile

