

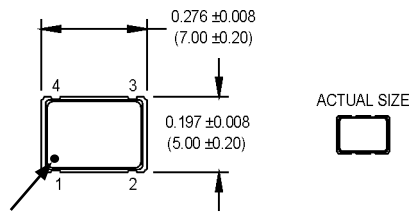
M3 Series

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

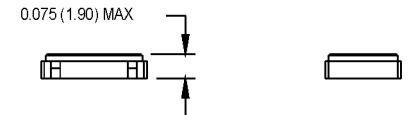
**THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.
PLEASE REFER TO THE M2 PRODUCT SERIES.**



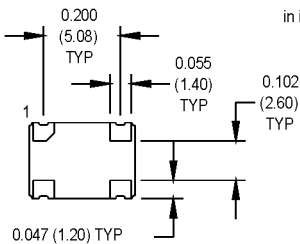
- AT-strip crystal in a miniature ceramic surface mount package
- TTL and HCMOS compatible
- Tri-state output is optional



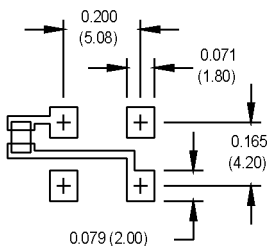
ACTUAL SIZE



All dimensions in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



NOTE: A capacitor of value 0.01 μ F or greater between Vdd and Ground is recommended.

Ordering Information

Product Series M3 1 3 T A N 00.0000 MHz

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) 00.0000 MHz

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

PARAMETERS	TTL Load		HCMOS Load		UNITS
	MIN.	MAX.	MIN.	MAX.	
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 Lead Free Solder Profile

