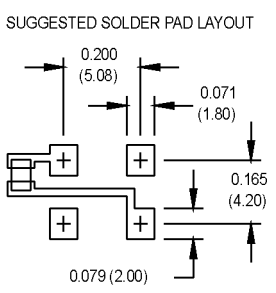
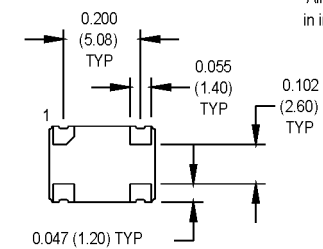
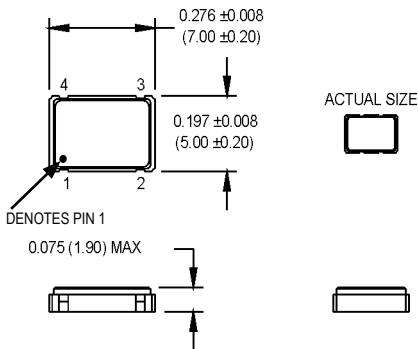


M2 Series

5x7 mm, 3.3 Volt, HCMOS/TTL Compatible Output, Clock Oscillator



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

Pin Connections

PIN	FUNCTION
1	N/C or Tristate
2	Ground
3	Output
4	+Vdd

Ordering Information

Product Series M2 1 3 T C N 00.0000 MHz

Temperature Range
 1: 0°C to +70°C 2: -40°C to +85°C
 3: -55°C to +105°C 4: -55°C to +125°C*
 5: 10°C to 125°C 6: -20°C to +70°C
 7: 0°C to 85°C

Stability
 3: ±100 ppm 4: ±50 ppm
 5: ±35 ppm 6: ±25 ppm
 *8: ±20 ppm

Output Type
 F: Fixed Q: Standby Function T: Tristate

Symmetry/Logic Compatibility
 A or G: 40/60 @ 50% Vdd**
 C: 45/55 HCMOS

Package/Lead Configurations
 N: Leadless

Frequency (customer specified)

*Contact Factory for Availability
 ** A and G codes are used interchangeably on the M2 Series

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	1.5		135	MHz	See Note 1
	Operating Temperature	Ta	(See ordering information)				
	Storage Temperature	Ts	-55		+125	°C	
	Frequency Stability	ΔF/F	(See ordering information)				
	Aging 1 st Year			±3		ppm	
	Thereafter (per year)			±2		ppm	
	Input Voltage	Vdd	3.0	3.3	3.6	V	
	Input Current	Idd			10 20 30 55	mA	1.500 to 20.000 MHz 20.001 to 50.000 MHz 50.001 to 67.000 MHz 67.001 to 135.000 MHz
	Standby Current				10	μA	"Q" Output Type
	Output Type		HCMOS/TTL Compatible				
	Load		2 TTL or 15 pF				
	Symmetry (Duty Cycle)		(See ordering information)				
	Logic "1" Level	Voh	90% Vdd Vdd -0.5			V V	HCMOS Load TTL Load
	Logic "0" Level	Vol			10% Vdd 0.5	V V	HCMOS Load TTL Load
	Output Current				±4	mA	
Rise/Fall Time	Tr/Tf			6 4 2	ns ns ns	See Note 3 1.500 to 50.000 MHz 50.001 to 80.000 MHz 80.001 to 135.000 MHz	
Standby/Tristate Function		Input Logic "1" or floating; output active Input Logic "0"; output disables to high-Z					
Start up Time				5	ms		
Random Jitter	Rj			4 10	ps RMS	1-Sigma	
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
	Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Hermeticity	Per MIL-STD-202, Method 112, (1x10 ⁻⁸ atm. cc/s of Helium)					
	Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B (-55°C to +125°C, 15 min. dwell, 10 cycles)					
	Solderability	Per EIAJ-STD-002					
Soldering Conditions	+260°C max. for 10 secs.						

1. Consult factory for availability of higher frequencies.
2. See Load circuit diagram #2. Consult factory with nonstandard output load requirements.
3. Rise/Fall times are measured between 0.5 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.

MtronPTI Lead Free Solder Profile

