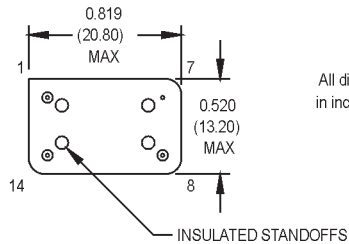
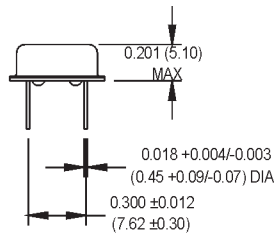
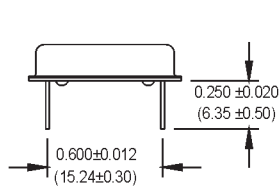


MHO3 Series

14 pin DIP, 3.3 Volt, HCMOS/TTL, Clock Oscillator



All dimensions
in inches (mm).

Pin Connections

PIN	FUNCTION
1	N/C or Tristate
7	Circuit/Case Ground
8	Output
14	+Vdd

Ordering Information

	MHO3	1	3	F	A	D	-R	00.0000	MHz
Product Series									
Temperature Range									
1: 0°C to +70°C									
2: -40°C to +85°C									
5: -10°C to +85°C									
6: -20°C to +70°C									
7: 0°C to +85°C									
Stability									
1: ±1000 ppm									
2: ±500 ppm									
3: ±100 ppm									
4: ±50 ppm									
5: ±35 ppm									
6: ±25 ppm									
7: +0/-200 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									
D: DIP; Nickel Header									
G: Gull Wing; Nickel Header									
RoHS Compliance									
Blank: non-RoHS compliant part									
-R: RoHS compliant part									
Frequency (customer specified)									

*Contact factory for availability.

M2030Sxxx - Contact factory for datasheet.

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	1.5		80	MHz	See Note 1
	Operating Temperature	T _A	(See ordering information)				
	Storage Temperature	T _S	-55		+125	°C	
	Frequency Stability	ΔF/F	(See ordering information)				
	Aging						
	1st Year			±3		ppm	
	Thereafter (per year)			±2		ppm	
	Input Voltage	V _{dd}	3.135	3.3	3.465	V	
	Input Current	I _{dd}			25	mA	1.500 to 50.000 MHz
					35	mA	50.001 to 67.000 MHz
	Output Type						HCMOS/TTL
	Load		2 TTL or 15 pF				See Note 2
	Symmetry (Duty Cycle)		(See ordering information)				See Note 3
	Logic "1" Level	V _{oh}	90% V _{dd}			V	HCMOS Load
			V _{dd} -0.4			V	TTL Load
Environmental	Logic "0" Level	V _{ol}			10% V _{dd}	V	HCMOS Load
					0.4	V	TTL Load
	Output Current				±4	mA	
	Rise/Fall Time	T _r /T _f			10	ns	See Note 4
	Tristate Function		Input Logic "1" or floating: output active Input Logic "0": output disables to high-Z				
	Start up Time			5		ms	
	Random Jitter	R _j		5	12	ps RMS	1-Sigma
	Mechanical Shock	MIL-STD-202, Method 213, C (100 g's)					
	Vibration	MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Thermal Cycle	MIL-STD-883, Method 1010, B (-55°C to +125°C, 15 min dwell, 10 cycles)					
	Hermeticity	MIL-STD-202, Method 112					
	Solderability	Per EIAJ-STD-002					
	Max Wave Soldering Conditions	+260°C for 10 seconds					

1. Contact the factory for availability of higher 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% V_{dd} with HCMOS load.

4. Rise/fall times are measured between 0.4 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} 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.