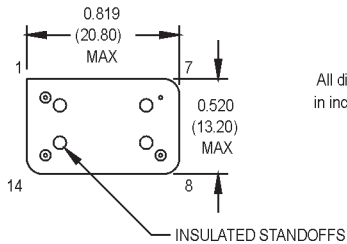
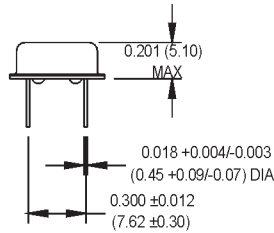
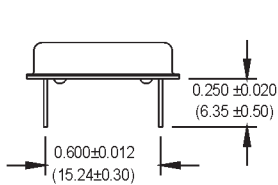


MHO3 Series

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



This product is not recommended for new designs



All dimensions in inches (mm).

Pin Connections

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

Ordering Information

Product Series	MHO3	1	3	F	A	D	-R	00.0000	MHz
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 35	mA mA	1.500 to 50.000 MHz 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 _{dd} -0.4			V V	HCMOS Load TTL Load	
	Logic "0" Level	V _{ol}			10% V _{dd} 0.4	V V	HCMOS Load 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				10	ms			
Random Jitter	R _j		5	12	ps RMS	1-Sigma		
Environmental	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							

- Contact the factory for availability of higher frequencies.
- TTL load - see Load Circuit Diagram #1. HCMOS load - see Load Circuit Diagram #2.
- Symmetry is measured at 1.4 V with TTL load and at 50% V_{dd} with HCMOS load.
- 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.