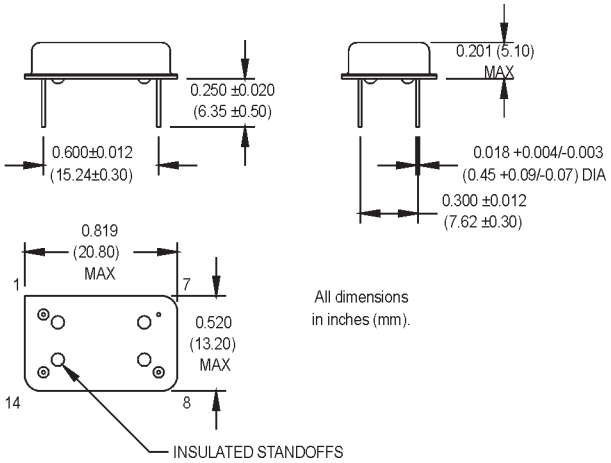
MHO3 Series

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

RoHS Compliant



All dimensions in inches (mm).

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.

Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	1.5		80	MHz	See Note 1
	Operating Temperature	TA	(See ordering information)				
	Storage Temperature	TS	-55		+125	°C	
	Frequency Stability	ΔF/F	(See ordering information)				
	Aging 1st Year Thereafter (per year)			 ±3 ±2		 ppm ppm	
	Input Voltage	Vdd	3.135	3.3	3.465	V	
	Input Current	Idd			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	Voh	90% Vdd Vdd-0.4			V V	HCMOS Load TTL Load
	Logic "0" Level	Vol			10% Vdd 0.4	V V	HCMOS Load TTL Load
	Output Current				±4	mA	
	Rise/Fall Time	Tr/Tf			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	Rj		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					

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% 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.