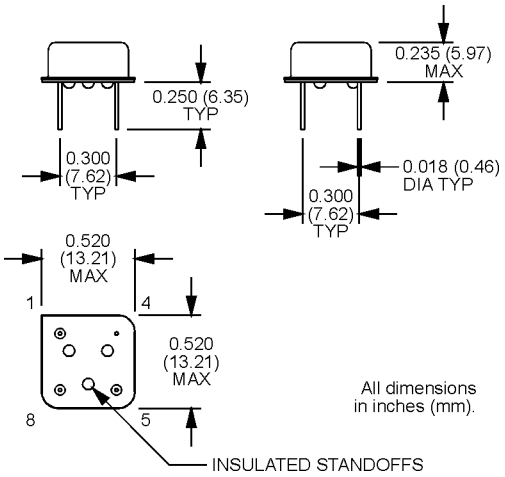
MH Series Half-Size HCMOS/TTL Compatible Oscillators

Half-Size HCMOS/TTL Compatible Oscillators



See page 135 for gull wing configuration.

Ordering Information

MH 1 3 F A D 00.0000 MHz

Product Series

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 +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 (1.000 MHz and up)

Symmetry/Logic Compatibility
- A: 40/60 CMOS/TTL
- B: 45/55 TTL
- C: 45/55 CMOS
- D: 45/55 CMOS/TTL

Package/Lead Configurations
- D: DIP; Nickel Header
- G: Gull Wing; Nickel Header

Frequency (customer specified)

Available Symmetry

FREQUENCY RANGE	STD.	OPTIONS
0.625 to 50.000 MHz	A	B, C, D
50.001 to 60.000 MHz	A	B, C
60.001 to 67.000 MHz	A	C

Available Stabilities vs. Temperature

T \ S	1	2	3	4	5	6	7	8
1	A	A	S	A	A	A	A	A
2	A	A	A	A	A	A	A	C
3	C	C	C	C	N	N	C	N
4	C	C	C	C	N	N	C	N
5	A	A	A	A	A	A	A	C
6	A	A	A	A	A	A	A	C
7	A	A	A	A	A	A	A	C

A = Available
N = Not Available
S = Standard
C = Consult Factory

Pin Connections

PIN	FUNCTION
1	N/C or Tri-state
4	Circuit/Case Ground
5	Output
8	+Vdd

Tri-state Control Logic
Pin 1 high or floating: clock signal output
Pin 1 low: output disables to high impedance

Electrical Specifications

Standard Operating Conditions • 0°C to +70°C; Vdd = 5.0 ±10% VDC

	TTL Load		HCMOS Load		
PARAMETERS	MIN.	MAX.	MIN.	MAX.	UNITS
Frequency Range	0.625	67.000	0.625	67.000	MHz
Output Load [1]		10		50	TTL/pF
Symmetry [2]	40/60	60/40	40/60	60/40	%
Logic "0" Level		0.5		10% Vdd	V
Logic "1" Level	Vdd-.5		90% Vdd		V
Rise/Fall Time [3]		5		10	nS
Supply Current					
0.625 to 40.000 MHz		30		40	mA
40.001 to 67.000 MHz		55		60	mA

[1] TTL load - See load circuit diagram #1 on page 137. HCMOS load - See load circuit diagram #2 on page 137.
[2] Symmetry is measured at 1.4 V with TTL load, and at 50% Vdd with HCMOS load.
[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. See page 136 for suggested soldering conditions.

M-tron Industries, Inc., PO Box 630, Yankton, SD 57078-0630, USA Phone: 605-665-9321 or 1-800-762-8800 Fax: 605-665-1709 Website: www.mtron.com
M-tron Industries Limited, 1104 Shanghai Industrial Investment Building, 48-62 Hennessy Road, Wanchai, Hong Kong, China Phone: 852-2866-8023 Fax: 852-2529-1822