MIH Series

5mm X 7mm Ceramic SMD



- **Ceramic SMD Package**
- **5.0, 3.3, 2.5, and 1.8 Volt**
- **HCMOS/TTL Compatible Output**
- **Stability to ±10ppm**
- **Tape and Reel Packaging**

Electrical Specifications

Frequency Range	5V and 3.3V	1.500MHz to 156.250MHz
	2.5V	1.500MHz to 70.000MHz
	1.8V	1.544MHz to 40.000MHz
Frequency Stability (Inclusive of Temperature, Load, Voltage and Aging)		±100ppm to ±10ppm
Operating Temperature Range		0°C - 70°C to -40°C - 85°C
Storage Temperature Range		-55°C - 125°C
Supply Voltage (Vdd)	±5%	5.0Vdc, 3.3Vdc, 2.5Vdc, or 1.8Vdc
Supply Current	Vdd = 5V	70mA max.
	Vdd = 3.3V	40mA max.
	Vdd = 2.5V	35mA max.
	Vdd = 1.8V	15mA max.
Output Voltage HCMOS	Logic 0	10% Vdd max.
	Logic 1	90% Vdd min.
Duty Cycle	50% of waveform	40%/60% max. or 45%/55% max.
Load Drive Capability	5V(less than 50MHz)	10 TTL Gates or 50pF
	5V(greater than 50MHz)	10 TTL Gates or 15pF
	3.3V(less than 50MHz)	10 TTL Gates or 30pF
	3.3V(greater than 50MHz)	10 TTL Gates or 15pF
	2.5V	10 TTL Gates or 15pF
	1.8V	10 TTL Gates or 15pF
Rise / Fall Time		4nSec max.
Start Up Time		10mSec max.
Jitter	RMS	10pSec max.*
*Please contact your MMD representative for up-to-date typical jitter information		

Notes

Part Numbering Guide

MI [ ] [ ] H [ ] [ ] H - Frequency T&R

5X7 Ceramic SMD

Supply Voltage
Blank = 5 Volt
3 = 3.3 Volt
2 = 2.5 Volt***
1 = 1.8 Volt****

Frequency Stability
100 = ±100ppm
050 = ±50ppm
025 = ±25ppm
020 = ±20ppm
015 = ±15ppm
010 = ±10ppm**

Output
H = HCMOS

Operating Temperature
Blank = 0°C to 70°C
27 = -20°C to 70°C**
48 = -40°C to 85°C**

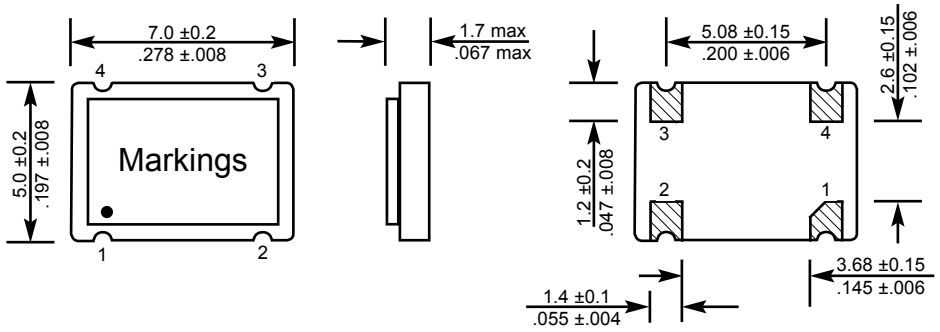
Symmetry
Blank = 40%/60%
A = 45%/55%

Pin 1 Connection
H = Tri-state

Packaging*
Blank = Bulk
T&R = Tape and Reel

*See page VA4 for Tape Specifications
**Not available in 2.5V and 1.8V
*** Available to 70MHz only
**** Available to 40MHz only

Mechanical Dimensions

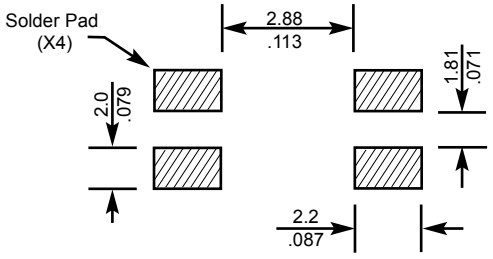


Pad Connections

Tri-state Operation
Logic 1 or NC = Oscillation
Logic 0 or GND = High Impedance

Pin 1: Tri-State
Pin 2: Ground / Case
Pin 3: Output
Pin 4: Supply Voltage

Suggested Solder Pad Layout



Environmental / Mechanical

Shock: MIL-STD-883, Method 2002, Condition B
Solderability: MIL-STD-883, Method 2003
Solvent Resistance: MIL-STD-202, Method 215
Vibration: MIL-STD-883, Method 2007, Condition A
Gross Leak Test: MIL-STD-883, Method 1014, Condition C
Fine Leak Test: MIL-STD-883, Method 1014, Condition A2

Markings

Line 1: MMD "Date Code"
Line 2: Frequency