MIH Series



5mm X 7mm Ceramic SMD

COMPONENTS



- 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		



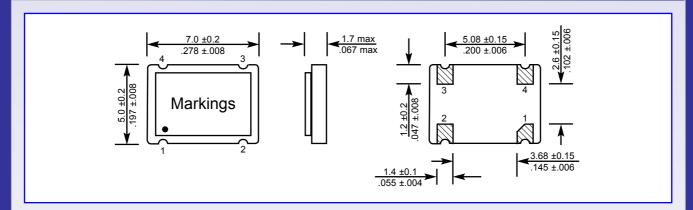
www.mmdcomp.com phone: 949-709-5075 / fax: 949-709-3536



Specifications subject to change without notice Revision: 7/01/04 J

Part Numbering Guide T&R Frequency 5X7 Ceramic SMD Frequency Stability Packaging* **Operating Temperature** Pin 1 Connection Supply Voltage $100 = \pm 100 ppm$ Blank = 0°C to 70°C H = Tri-state Blank = Bulk Blank = 5 Volt $050 = \pm 50$ ppm $27 = -20^{\circ}\text{C to } 70^{\circ}\text{C**}$ T&R = Tape and Reel S = Stand-by 3 = 3.3 Volt025 = ±25ppm $48 = -40^{\circ}$ C to 85° C 2 = 2.5 Volt*** **Symmetry** $020 = \pm 20$ ppm 1 = 1.8 Volt**** Blank = 40%/60% **Output** $015 = \pm 15$ ppm H = HCMOS A = 45%/55% 010 = ±10ppm** *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

Suggested Solder Pad Layout

Tri-state Operation

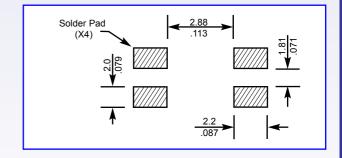
Logic 1 or NC = Oscillation
Logic 0 or GND = High Impedance

Pin 2: Ground / Case

Pin 3: Output

Pin 1: Tri-State

Pin 4: Supply Voltage



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

Line 1: MMD "Date Code"

Line 2: Frequency

Markings

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