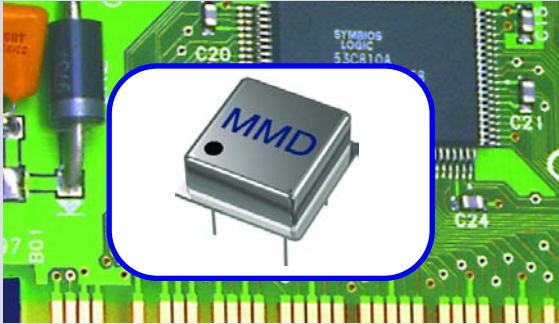


MBH Series

Half-Size (8 pin DIP)

MMD

COMPONENTS



- **Industry Standard Package**
- **5.0, 3.3, 2.5 or 1.8 Volt**
- **HCMOS | TTL Output**
- **Stability to $\pm 10\text{ppm}$**
- **Wide Frequency Range**

Electrical Specifications

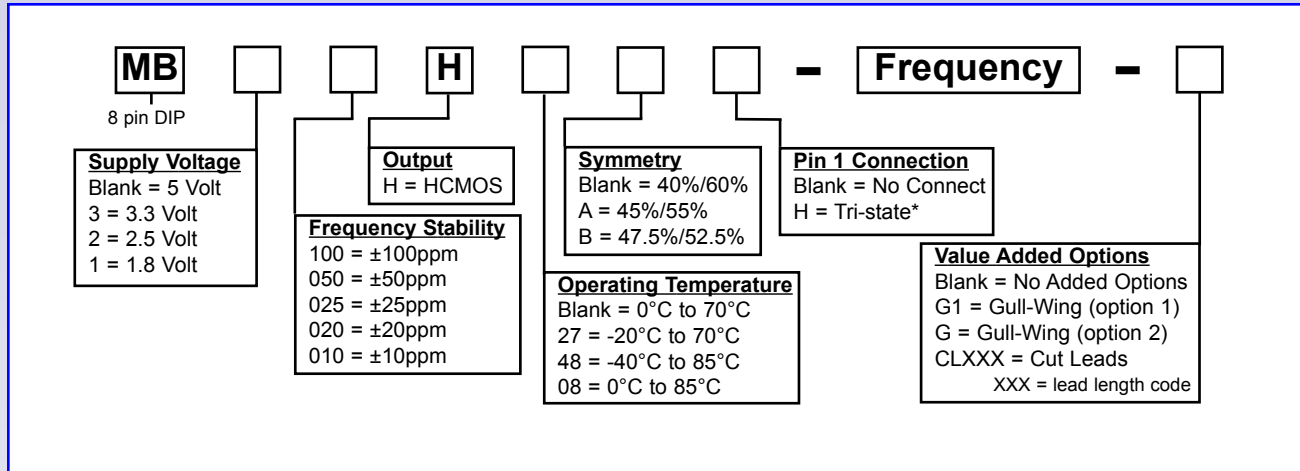
Frequency Range		3.000KHz to 220.000MHz
Frequency Stability (Inclusive of Temperature, Load, Voltage and Aging)		$\pm 100\text{ppm}$ to $\pm 10\text{ppm}$
Operating Temperature Range		0°C - 70°C to -40°C - 85°C
Storage Temperature Range		-55°C - 125°C
Supply Voltage (Vdd)		5.0Vdc $\pm 10\%$ or 3.3Vdc $\pm 10\%$
Supply Current		See Chart Below
Output Voltage TTL	Logic "0"	0.5V max.
	Logic "1"	2.5V min.
Output Voltage HCMOS	Logic "0"	10% Vdd max.
	Logic "1"	90% Vdd min.
Duty Cycle	1.4Vdc w/TTL load	40%/60% max. to 47.5%/52.5% max.
	50% of waveform w/HCMOS load	40%/60% max. to 47.5%/52.5% max.
Load Drive Capability		10 TTL Gates or 50pF Load max.
Rise / Fall Time	up to 24.000MHz	10nSec max.
	24.001MHz to 70.000MHz	6nSec max.
	above 70.000MHz	4nSec max.
Start Up Time		10mSec max.

Supply Current Chart

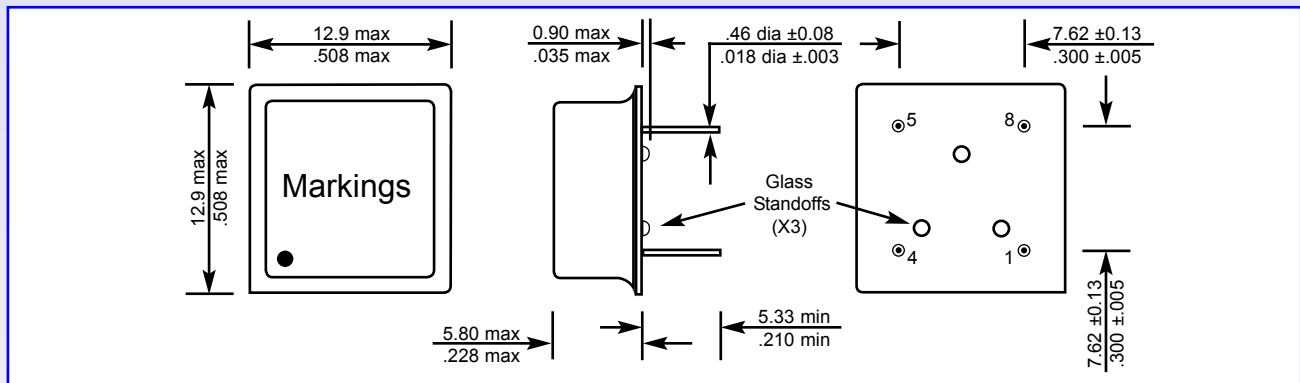
Frequency Range	Current (mA)	Supply	Frequency Range	Current (mA)	Supply
3.000KHz to 24.000MHz	20 Max.	5V	24.001MHz to 50.000MHz	20 Max	3.3V
24.001MHz to 50.000MHz	30 Max.	5V	50.001MHz to 70.000MHz	25 Max	3.3V
50.001MHz to 70.000MHz	50 Max.	5V	70.001MHz to 220.000MHz	35 Max	3.3V
70.001MHz to 220.000MHz	60 Max.	5V	24.000MHz to 30.000MHz	20 Max.	2.5V / 1.8V
3.000KHz to 24.000MHz	10 Max.	3.3V	30.001MHz to 80.000MHz	40 Max.	2.5V / 1.8V

Notes

Part Numbering Guide



Mechanical Dimensions



Pin Connections

- Pin 1: No Connect or Tri-state*
- Pin 4: Case Ground
- Pin 5: Output
- Pin 8: Supply Voltage

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

Value Added Information

Gull-Wing (G1 option) -
 For specification details refer to page VA3

Gull-Wing (G option) -
 For specification details refer to page VA3

Cut Leads (CLXXX option) -
 For specification details refer to page VA1

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
- Line 2: Part Number
- Line 3: Frequency
- Line 4: Date Code