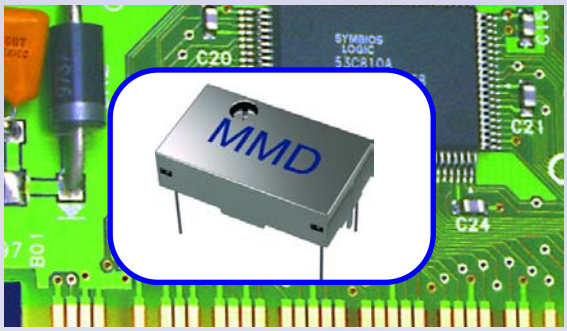
MTA and MTB Series

Full-Size (7.3mm or 4.7mm height)

MMD COMPONENTS



- **Industry Standard Package**
- **5.0 or 3.3 Volt**
- **HCMOS, Sinewave, Clipped Sine**
- **1.000MHz to 1.000GHz**
- **Stability Down to ±1ppm**

Electrical Specifications

H Option = HCMOS Output	Frequency Range	1.000MHz to 160.000MHz
	Frequency Stability	Down to ±1ppm
	Load	10K Ohms // 15pF
	Supply Current	35mA max
	Output	Logic"1" Level = 0.9Vdd min.
		Logic"0" Level = 0.1Vdd max.
S Option = Clipped Sine Output	Frequency Range	8.000MHz to 300.000MHz
	Frequency Stability	Down to ±1ppm
	Load	10K Ohms // 15pF
	Supply Current	3mA max.
	Output	1.0V p-p min.
Z Option = Sinewave Output	Sinewave Output	8.000MHz to 1.000GHz
	Frequency Stability	Down to ±1ppm
	Load	50 Ohms
	Supply Current	5mA max.
	Output	7dBm min.
Operating Temperature Range		See Part Numbering Guide
Storage Temperature Range		-40°C to +85°C
Supply Voltage (Vdd)	Vdd = 5V	5.0Vdc ±5%
	Vdd = 3.3V	3.3Vdc ±5%
Internal Trim (Top of can)		±3ppm min.
Control Voltage	Vdd = 5V	2.5Vdc±2.0Vdc Positive Slope
	Vdd = 3.3V	1.65Vdc±1.5Vdc Positive Slope
Pin 1 Connection	Blank	No Connect
	V Option	±10ppm min.
Frequency Stability	vs. Aging	±1ppm per year max.
	vs. Voltage (with a 5% change)	±0.3ppm
	vs. Load (with a 10% change)	±0.3ppm
Symmetry	@50% of waveform w/CMOS load	40/60%

Notes

Part Numbering Guide

MT □ □ □ □ □ □ □ – **Frequency**

14 pin DIP

Series Option
A = A Series(7.3mm Hgt.)
B = B Series(4.7mm Hgt.)

Supply Voltage
Blank = 5 Volt
3 = 3.3 Volt

Frequency Stability*
10 = ±1ppm
15 = ±1.5ppm
20 = ±2ppm
25 = ±2.5ppm
30 = ±3ppm
35 = ±3.5ppm
50 = ±5ppm

Output Type
H = HCMOS
S = Clipped Sinewave
Z = Sinewave

Operating Temp. Range*
A = 0°C to +50°C
B = -10°C to +60°C
C = -20°C to +70°C
D = -30°C to +70°C
E = -30°C to +80°C
F = -40°C to +85°C
G = 0°C to +70°C

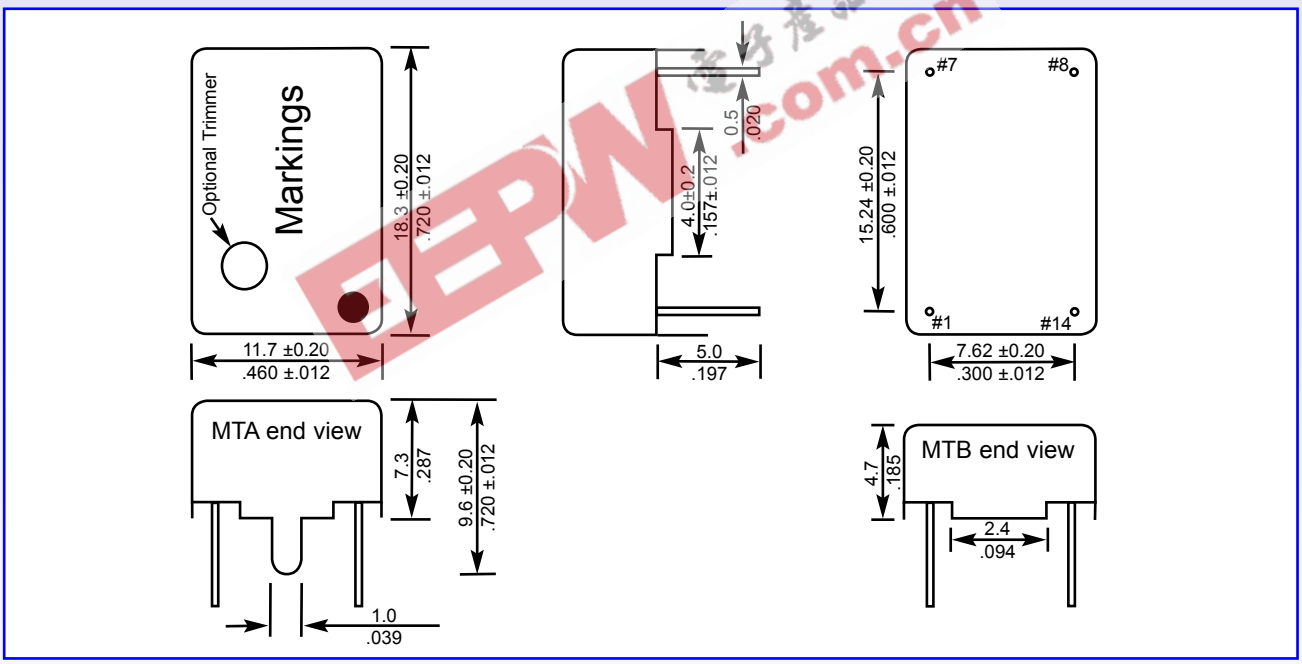
Trimmer Option
Blank = No Trimmer
M = Mechanical Trimmer

Pin 1 Connection
Blank = No Connect
V = Voltage Control

* Check with factory for additional stability vs. temperature options

Cut Leads and Gull-Wing are available for this package.
See VA1 and VA3 for specs.

Mechanical Dimensions



Pin Connections

Pin 1: Control Voltage or N/C
Pin 7: Case Ground
Pin 8: Output
Pin 14: Supply Voltage

Markings

Line 1: MMD
Line 2: Part Number
Line 3: Frequency
Line 4: Date Code