

# MTA and MTB Series



Full-Size (7.3mm or 4.7mm height)



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

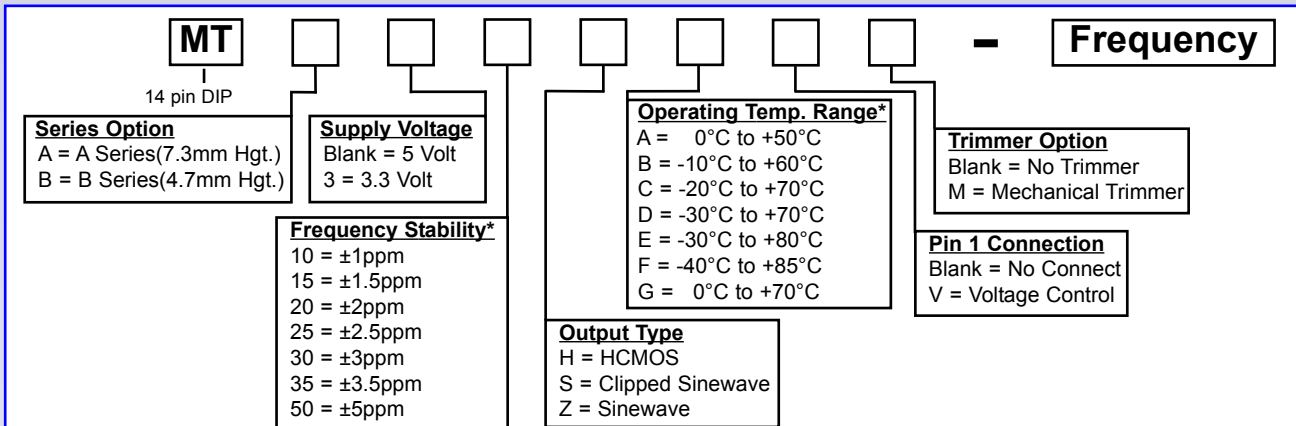
## Electrical Specifications

H Option = HCMOS Output	Frequency Range	1.000MHz to 160.000MHz
	Frequency Stability	Down to $\pm 1$ ppm
	Load	10K Ohms // 15pF
	Supply Current	35mA max
	Output	Logic"1" Level = 0.9V <sub>dd</sub> min. Logic"0" Level = 0.1V <sub>dd</sub> max.
S Option = Clipped Sine Output	Frequency Range	8.000MHz to 300.000MHz
	Frequency Stability	Down to $\pm 1$ ppm
	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 $\pm 1$ ppm
	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 (V <sub>dd</sub> )	V <sub>dd</sub> = 5V	5.0Vdc $\pm 5\%$
	V <sub>dd</sub> = 3.3V	3.3Vdc $\pm 5\%$
Internal Trim (Top of can)		$\pm 3$ ppm min.
Control Voltage	V <sub>dd</sub> = 5V	2.5Vdc $\pm 2.0$ Vdc Positive Slope
	V <sub>dd</sub> = 3.3V	1.65Vdc $\pm 1.5$ Vdc Positive Slope
Pin 1 Connection	Blank	No Connect
	V Option	$\pm 10$ ppm min.
Frequency Stability	vs. Aging	$\pm 1$ ppm per year max.
	vs. Voltage (with a 5% change)	$\pm 0.3$ ppm
	vs. Load (with a 10% change)	$\pm 0.3$ ppm
Symmetry	@50% of waveform w/CMOS load	40/60%

Notes

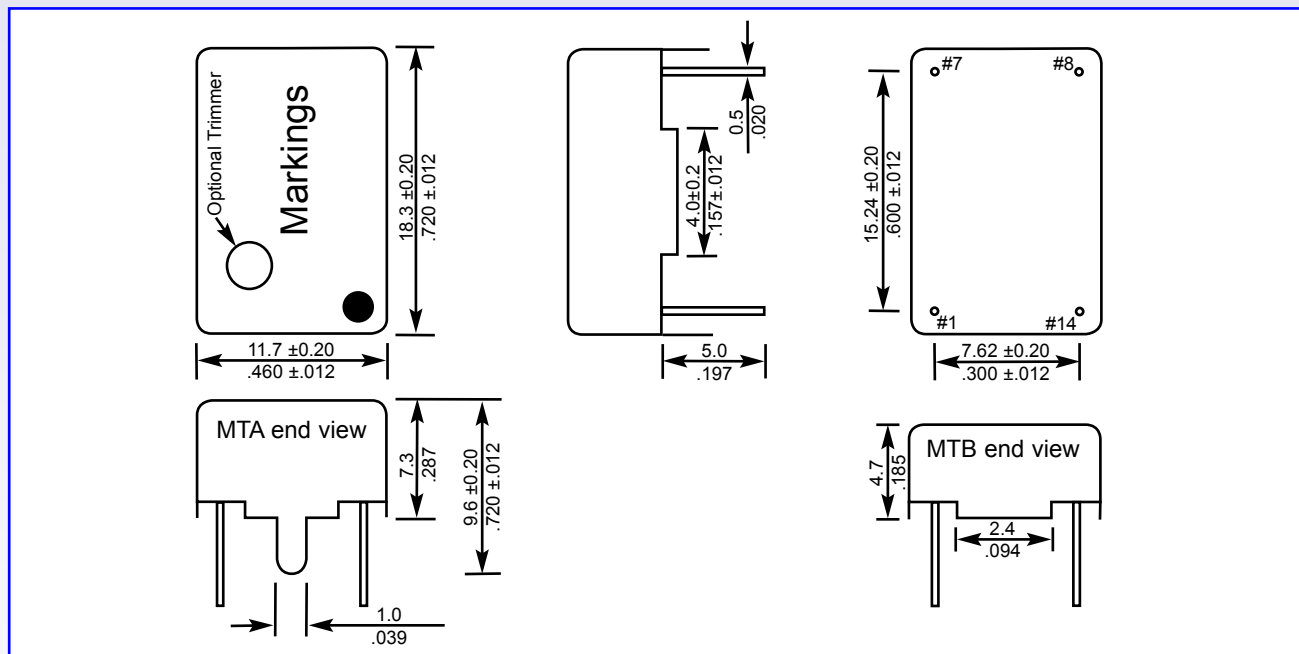


## Part Numbering Guide



\* 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