MTBH, MTBS, and MTBZ Series

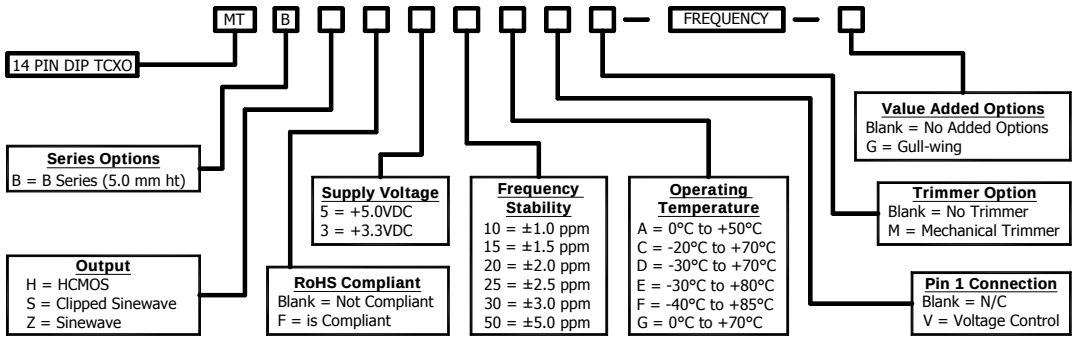
- **Industry Standard Package**
- **+3.30VDC or +5.00VDC**
- **RoHS Compliant Available**
- **Up to 800.000MHZ**

ELECTRICAL SPECIFICATIONS:

Output		HCMOS	Clipped Sinewave	Sinewave
Frequency Range	Fund or 3rd OT	1.000KHZ to 180.000MHZ	1.000KHZ to 180.000MHZ	1.000KHZ to 180.000MHZ
	PLL	75.000KHZ to 200.000MHZ	75.000KHZ to 800.000MHZ	75.000KHZ to 800.000MHZ
Load		10k Ohms // 15pF	10k Ohms // 15pF	50 Ohms
Supply Current		35mA max	3mA max	35mA max
Output Level		Logic "1" = 90% of Vdd min Logic "0" = 10% of Vdd max	1.0V p-p min	0 dBm min
Symmetry		40%/60% at 50% of Waveform	N/A	N/A
Freq. Stability vs Temp (Note 1)		(See Frequency Stability vs Temperature Table)		
Freq. Stability vs Aging		±1 ppm per year max		
Freq. Stability vs Voltage		±0.3 ppm with a 5% change in Vdd		
Freq. Stability vs Load		±0.3 ppm with a 10% change in Load		
Storage Temperature		-40°C to +85°C		
Supply Voltage (Vdd)		+3.3VDC ±5%		+5.0VDC ±5%
Control Voltage with VC option		+1.65VDC ±1.50VDC Positive Slope		+2.50VDC ±2.00VDC Positive Slope
Pin 1 Connection				
No Connection		No Connection		
VC Option		±10 ppm min		
Mechanical Trimmer when Specified		±3 ppm min If no mechanical trimmer is specified, trimmer may still be present depending on frequency stability option.		

Note 1: If no mechanical trimmer, oscillator frequency shall be ±1 ppm at +25°C ±3°C at time of shipment.

PART NUMBER GUIDE:



Please Consult with MMD Sales Department for any other Parameters or Options.

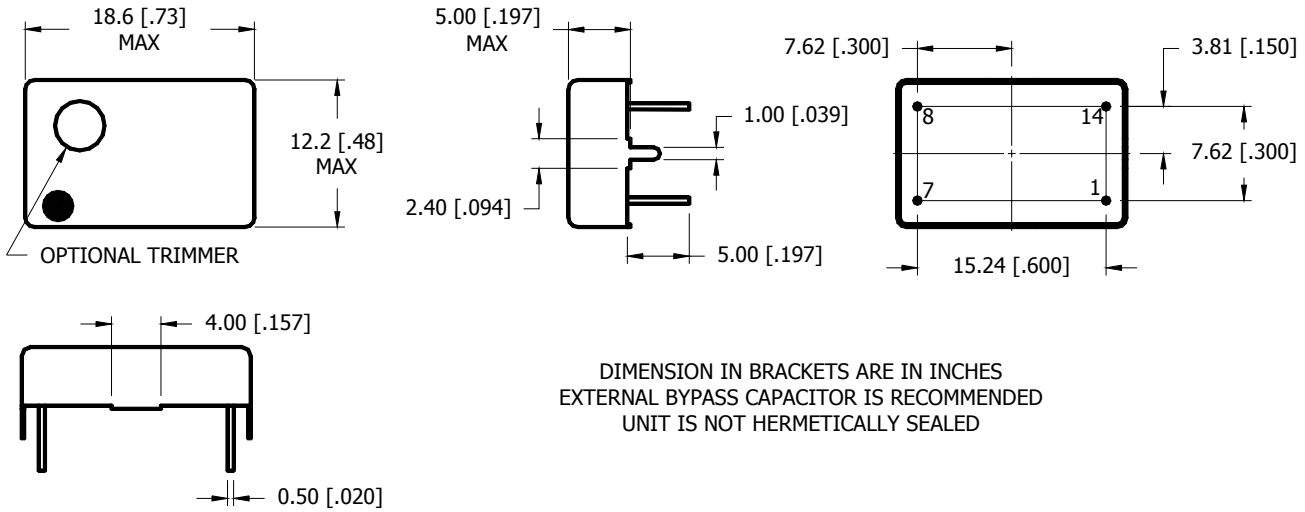
MMD Components, 30400 Esperanza, Rancho Santa Margarita, CA, 92688
Phone: (949) 709-5075, Fax: (949) 709-3536, www.mmdcomp.com
Sales@mmdcomp.com

FREQUENCY STABILITY vs TEMPERATURE TABLE:

Code	Stability	10	15	20	25	30	50
	Temp	±1.0ppm	±1.5ppm	±2.0ppm	±2.5ppm	±3.0ppm	±5.0ppm
A	0°C TO +50°C	●	●	●	●	●	●
G	0°C TO +70°C	☐	●	●	●	●	●
C	-20°C TO +70°C	☐	☐	●	●	●	●
D	-30°C TO +70°C	☐	☐	☐	●	●	●
F	-40°C TO +85°C	☐	☐	☐	☐	☐	●

● = Available ☐ = Consult with the Manufacturer

MECHANICAL DIMENSIONS:



DIMENSION IN BRACKETS ARE IN INCHES
EXTERNAL BYPASS CAPACITOR IS RECOMMENDED
UNIT IS NOT HERMETICALLY SEALED

ENVIRONMENT / MECHANICAL:

Shock	MIL-STD-883, Method 2002, Condition B
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-883, Method 215
Vibration	MIL-STD-883, Method 2007, Condition A

PIN CONNECTIONS:

Pin 1	Control Voltage or N/C See note below
Pin 7	Case Ground
Pin 8	Output
Pin 14	Supply voltage (Vdd)
Note: If Pin 1 is not connected, pin may be deleted	

MARKING:

Line 1 =MXXXXX
M = MMD COMPONENTS
XXXXX = Frequency in MHZ

Line 2 = SYYMML
S = Internal Code
YYMM = 4 Digit Date Code (Year / Month)
L = Denotes RoHS Compliant

Line 3 = XXXXX
Internal use only
May vary with lots

Black dot to denote Pin 1

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