# MTJH, MTJS, and MTJZ Series

- **11.7 x 9.6 SMD Package**
- **RoHS Compliant Available**
- **Voltage Control Option**
- **Wide Frequency Range**

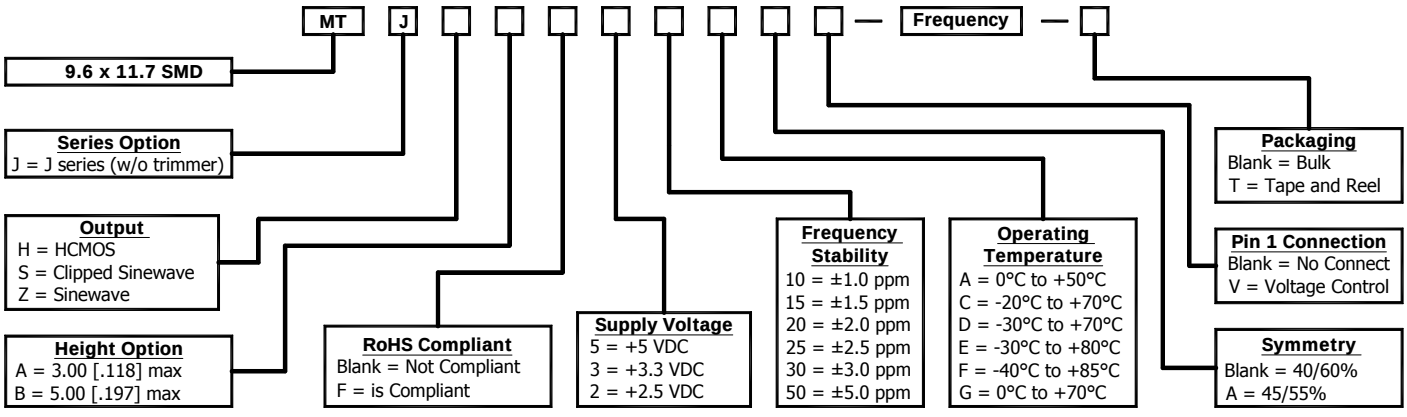
## ELECTRICAL SPECIFICATIONS:

| | | | |
|---|---|---|---|
| Output | HCMOS | Clipped Sinewave | Sinewave |
| Frequency Range | 9.600MHZ to 50.000MHZ | | |
| Load | 10k Ohms // 15pF | 10k Ohms // 15pF | 50 Ohms |
| Supply Current | 35mA max | 3mA max | 25mA max |
| Output Level | Logic "1" = 90% of Vdd min<br>Logic "0" = 10% of Vdd max | 1.0V p-p min | 7 dBm |
| Symmetry | See Part Numbering Guide | 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 | | |
| Operating Range | (See Frequency Stability vs Temperature Table) | | |
| 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 |

Note 1: 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

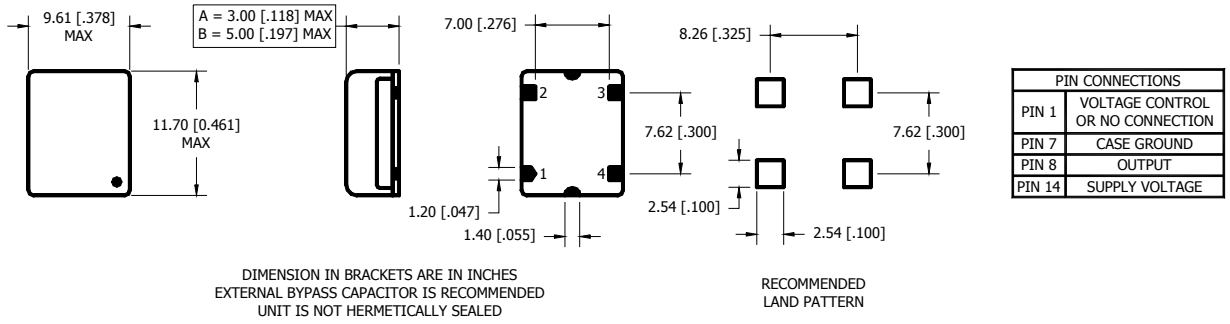
**MMD Components**, 30400 Esperanza, Rancho Santa Margarita, CA, 92688
Phone: (949) 709-5075, Fax: (949) 709-3536, www.mmdcomp.com
Sales@mmdcomp.com

## 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:

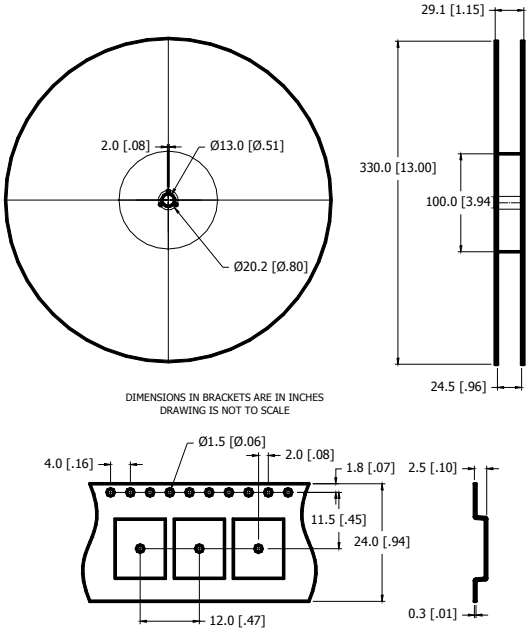



| PIN CONNECTIONS | |
|---|---|
| PIN 1 | VOLTAGE CONTROL OR NO CONNECTION |
| PIN 7 | CASE GROUND |
| PIN 8 | OUTPUT |
| PIN 14 | SUPPLY VOLTAGE |

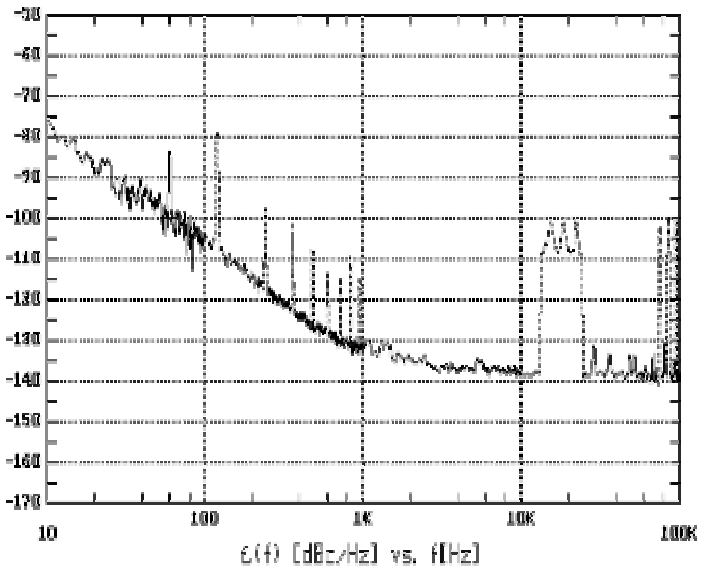
## ENVIRONMENT / MECHANICAL:

| | |
|---|---|
| Shock | MIL-STD-883, Method 2002, Condition B |
| Solderability | MIL-STD-883, Method 2003 |
| Vibration | MIL-STD-883, Method 2007, Condition A |

## TAPE and DIMENSIONS:




## PHASE NOISE:




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