

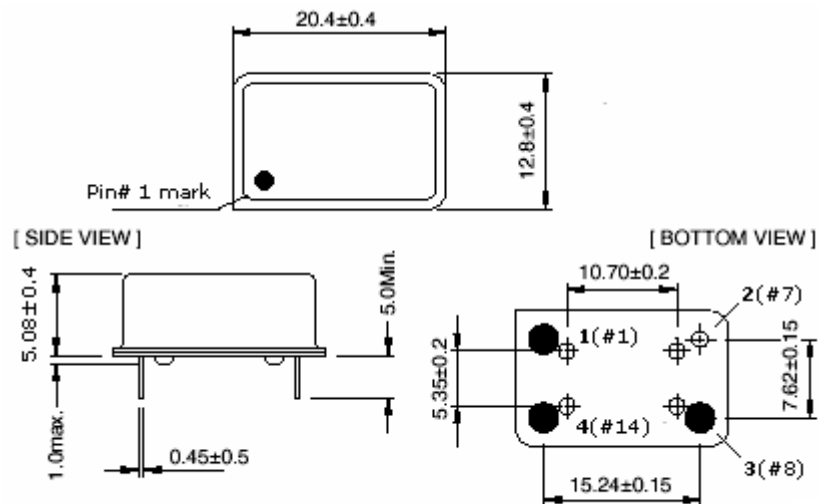
### Features

- HCMOS/TTL
- Metal 14pin DIP Package, Welding, 20.4x12.8x5.08mm
- 3.3V / 5.0V Operation
- RoHS Compliant

### Specification

Parameter	Characteristic
Frequency Range	1.000MHz ~ 200.0000MHz
Frequency Stability	+/- 100ppm std. (See Table 4)
	Inclusive of Operating Temperature
Operating Temperature Range	0 ~ +70°C std. (See Table 6)
Storage Temperature Range	-55 ~ +125°C
Input Voltage	3.3Vdc +/- 10% std. (See Table 3)
Control Voltage	1.65V +/- 1.35V std. (See Table 3)
Pulling Range	+/- 100ppm min std. (See Table 5)
Input Current	50mA max (See Table A)
Output 0 Level (Vol)	10%Vdc max
Output 1 Level (Voh)	90%Vdc min
Symmetry (Duty Cycle)	40/60% @ 1/2Vdc std. (See Table 7)
Rise & Fall Time	10nS max (See Table B)
Linearity	+/- 10% std. (+/- 15%, +/- 20%)
Start Up Time	10mS max
Output waveform vs. Load	HCMOS-TTL / 15pF or 10TTL
Aging(at 25°C)	+/- 5ppm / year max

### Drawing



Unit : mm

### Pin Connection

1. Vcontrol
2. Ground
3. Output
4. Vcc

### Ordering Guide

**Typical P/N :    MDVH-F - 35.328M - 52 - 50 E B S1 -TU**  
    **1**   **2**   **3**   **4** **5** **6** **7** **8**

**1. Package MDVH-F = 20.4x12.8x5.08mm**  
 (Metal 14pin DIP VCXO, FULL size, HCMOS/TTL)

**2. Frequency range :** 1 to 50MHz (Fundamental)  
 50.001 to 200MHz (Multi)

**3. Input Voltage & Control Voltage :**  
 31 : 3.3V (Vcontrol : 1.65 +/- 1.35V)  
 32 : 3.3V (Vcontrol : 1.65 +/- 1.50V)  
 33 : 3.3V (Vcontrol : 1.65 +/- 1.65V)  
 51 : 5.0V (Vcontrol : 2.50 +/- 2.00V)  
 52 : 5.0V (Vcontrol : 2.50 +/- 2.50V)

**4. Frequency Stability**  
 00 : +/- 100ppm  
 50 : +/- 50ppm  
 25 : +/- 25ppm

**5. Pulling Range**  
 C : +/- 50ppm min  
 D : +/- 80ppm min  
 E : +/- 100ppm min  
 F : +/- 130ppm min  
 \* : The others

**6. Operating Temperature Range**  
 A : 0~70 °C  
 B : -20~70 °C  
 C : -40~85 °C  
 D : -10~70 °C  
 \* : The other

**7. Symmetry (Duty Cycle)**  
 S1 : 45/55% at 1/2Vdc  
 S2 : 40/60% at 1/2Vdc

**8. Packing**  
 BU : Bulk  
 TU : Tube

**A. Input Current**

(unit : mA)	5.0V	3.3V
1MHz to 25MHz	20	15
25.001MHz to 50MHz	30	25
50.001MHz to 80MHz	40	35
80.001MHz to 200MHz	50	45

**B. Rise / Fall Time**  
 1MHz ≤ F ≤ 25MHz : 10nS max  
 25MHz < F ≤ 50MHz : 5nS max  
 50MHz < F ≤ 200MHz : 8nS max (Multi)