

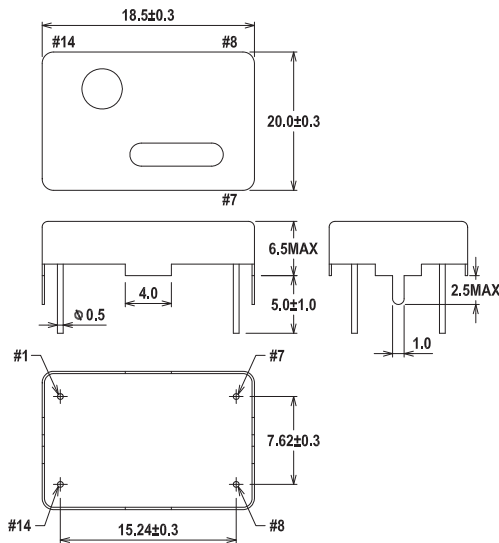
◆ Application

- Cellular Applications (GSM, TDMA,CDMA)
- GPS Devices
- Mobile and Portable Radio/Telephone Communications Transceivers
- Pb free product

◆ Options

- Carbon

◆ Dimension(mm)



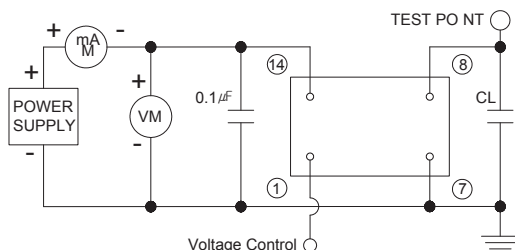
No.	Pin Connection
# 1	Voltage Control
# 7	GND
# 8	Output
# 14	Vcc

◆ Standard Specification

(Nominal frequency referenced to frequency at 25 °C ± 2 °C)

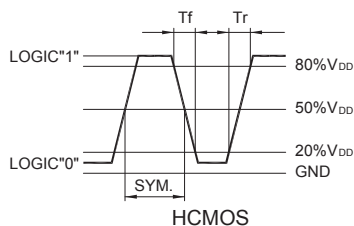
	MVTD-H Serie
Logic Family	HCMOS
Frequency Range	8.000 MHz ~ 35.000 MHz
Frequency Stability	+/-5.0ppm, +/-2.5ppm, +/-2.0ppm
Pullability	+/-5ppm, +/-10ppm typ. (@Vcont = 2.5Vdc)
Operating Temp. Range	-40 °C ~ +85 °C, -30 °C ~ +75 °C, -20 °C ~ 70 °C
Storage Temp. Range	-55 °C ~ +125 °C
Input Voltage	+ 5.0 Vdc ± 5% or +3.3 Vdc ± 5%
Input Current	15.0mA Max
Output Level	Symmetry : 40/60% max @ 50% Vdd Logic 0: 10% Vdd max Logic 1: 90% Vdd min Rise & Fall Times : 8ns max, 20~80%
Aging	+/- 1 ppm/year Max
Output Load	10Kohm//10pF, 15pF
Phase Noise	-40 dBc/Hz max @ 1 Hz offset from carrier -80 dBc/Hz max @ 10 Hz -110 dBc/Hz max @ 100 Hz -135 dBc/Hz max @ 1 kHz -140 dBc/Hz max @ 10 kHz -145 dBc/hZ max @ 100 kHz

◆ Test Circuit



Note: CL Includes probe and fixture capacitance

◆ Output Waveform



◆ Parts Number Guide

Classification	Designators								Description	
Example	M	VT	D	-	H	1	6	A	()	20.000 MHz (Frequency)
Logo	M									MDX
Package size		VT								VCTCXO
Product			D							Dip type 18.5mm X 12.0mm
Output Level					H					HCMOS
Temperature Range						4	8			-40 °C ~ +85 °C
						3	8			-30 °C ~ +80 °C
						3	7			-30 °C ~ +75 °C
						2	7			-20 °C ~ +70 °C
						1	6			-10 °C ~ +60 °C
Frequency Stability						0	5			+0 °C ~ +50 °C
								A		+/-2.0ppm
								B		+/-2.5ppm
Supply Voltage									()	+5.0 Volt
									3	+3.3 Volt

Ref 2009-02b - All specifications are subject to change without notice