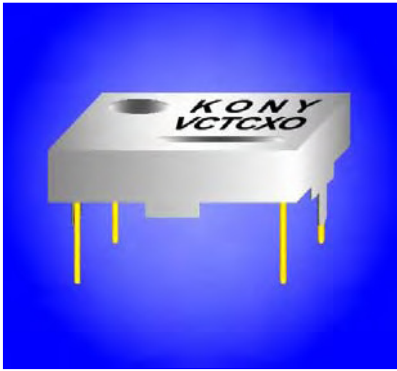




Voltage Controlled-Temperature Compensated Crystal Oscillator



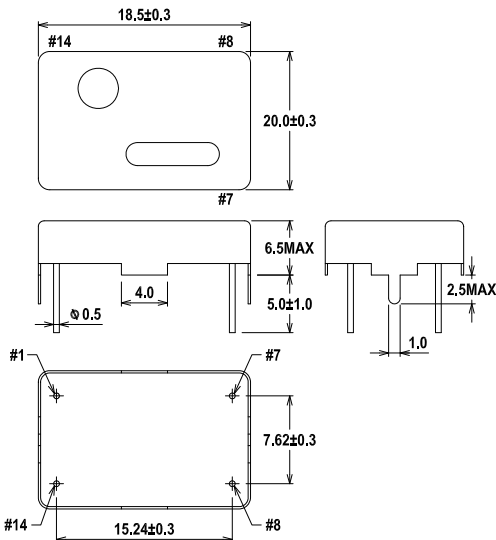
◆ Application

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

◆ Options

- Carbon

◆ Dimension(mm)



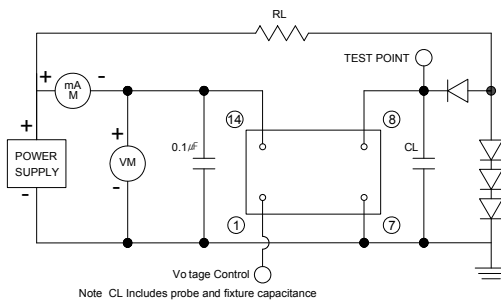
No.	Pin Connection
# 1	Voltage Control
# 7	GND
# 8	Output
# 14	Vcc

◆ Standard Specification

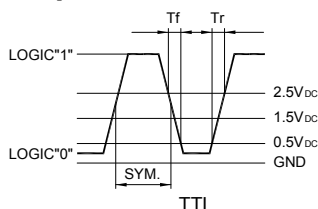
(Nominal frequency referenced to frequency at 25 °C ± 2 °C)

MVTD-T Series	
Logic Family	TTL
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%
Input Current	15.0mA Max
Output Level	Symmetry : 40/60% max @ 1.5V Logic 0: 0.5V max Logic 1: 2.5V min Rise & Fall Times : 4ns max, 0.5 ~ 2.5V
Aging	+/- 1 ppm/year Max
Pullability	+/-5ppm, +/-10ppm (@Vcont=1.5V)
Output Load	2TTL or 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



◆ Output Waveform



◆ Parts Number Guide

Classification	Description								
Example	M	VT	D	-	T	2	7	A	20.000000 MHz (Frequency)
Logo	M								MDX
Product		VT							VCTCXO
Package size			D						Dip type 18.5mm X 12.0mm
Output Level					T				TTL
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
						0	5		0°C ~ +50°C
Frequency Stability & Pullability								A	+/-2.0ppm, Pullability +/-5 ppm
								B	+/-2.5ppm, Pullability +/-5 ppm
								C	+/-5.0ppm, Pullability +/-5 ppm
								D	+/-2.0ppm, Pullability +/-10 ppm
								E	+/-2.5ppm, Pullability +/-10 ppm
								F	+/-5.0ppm, Pullability +/-10 ppm