



Crystal Oscillators



Application

- MPU
- Disc Driver
- Laptop
- Pb free product

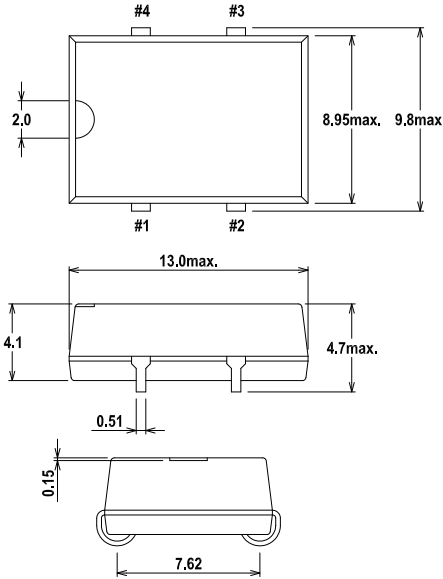
Options

- Stick
- Tri-State output on MTH

Standard Specification

(Nominal frequency referenced to frequency at 25 ± 2)

Dimension(mm)



No.	Pin Connection
# 1	Tri-State or N/C
# 2	GND
# 3	Output
# 4	Vdc

	MCH/MTHXXH , MCH/MTHXXH-3
Logic Family	HCMOS
Frequency Stability	+/-25ppm , +/-50ppm , +/-100ppm
Operating Temp.Range	0°C ~ +70°C , -40°C ~ +85°C
Storage Temp.Range	-55°C ~ +125°C
High Level ("1")	+90% V _{DD} Min
Low Level ("0")	+10% V _{DD} Max
Symmetry	40% ~ 60% (@ +50% V _{DD} Level)

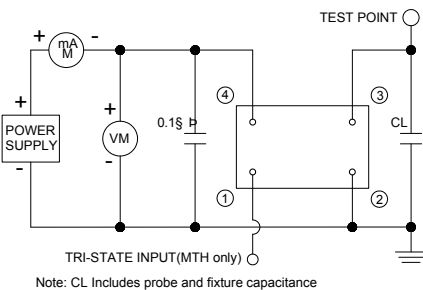
MCH/MTHXXH	Input Voltage +5.0Vdc ±10%		
Frequency Range(MHz)	1.000 ~ 4.000	4.000+ ~ 24.000	24.000+ ~ 70.000
Input Current	15mA Max	30mA Max	45mA Max
Rise & Fall Time	8.0 ns Max		
Output Load	50pF	30pF	15pF

MCH/MTHXXH-3	Input Voltage +3.3Vdc ±10%		
Frequency Range(MHz)	1.000 ~ 4.000	4.000+ ~ 24.000	24.000+ ~ 70.000
Input Current	20mA Max	25mA Max	35mA Max
Rise & Fall Time	4.0 ns Max	3.0 ns Max	1.5ns Max
Output Load	30pF		15pF

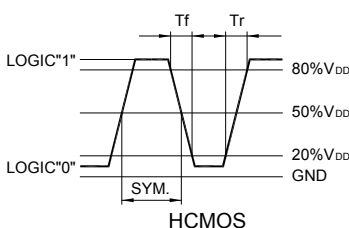
Parts Number Guide

Classification	Description									
Example	M	C	H	0	8	H	B	3	—	25.000000 MHz (Frequency)
Logo	M									MDX-KONY
PIN1 N/C or Tri-state		C								No Tri-state
		T								Tri-state
Logic			H							HCMOS
Symmetry				0						40/60% max, 0°C to +70 C
				A						40/55% max, 0°C to +70 C
				2						40/60% max, -40 to +85 C
				4						45/55% max, -40 to +85 C, 50 MHz max.
Frequency Range					3					1 ~ 4MHz
					6					4+ ~ 24MHz
					8					24+ ~ 70MHz
Package size						H				H-pack size (Plastic SMD, J-Lead)
Frequency Stability							B			+/-50ppm
							C			+/-100ppm
Supply Voltage								3		5.0V
										3.3V

Test Circuit



Output Waveform



2010-02a All specifications are subject to change without notice

Manufactured by OLE