

CLOCK OSCILLATORS

STANDARD FEATURES:

- 0.800" (L) X 0.500" (W) X 0.240" (H)* Full Size
- 0.500" (L) X 0.500" (W) X 0.240" (H)* Half Size
- Dual Inline Spacing
- High Reliability
- Resistance Welded

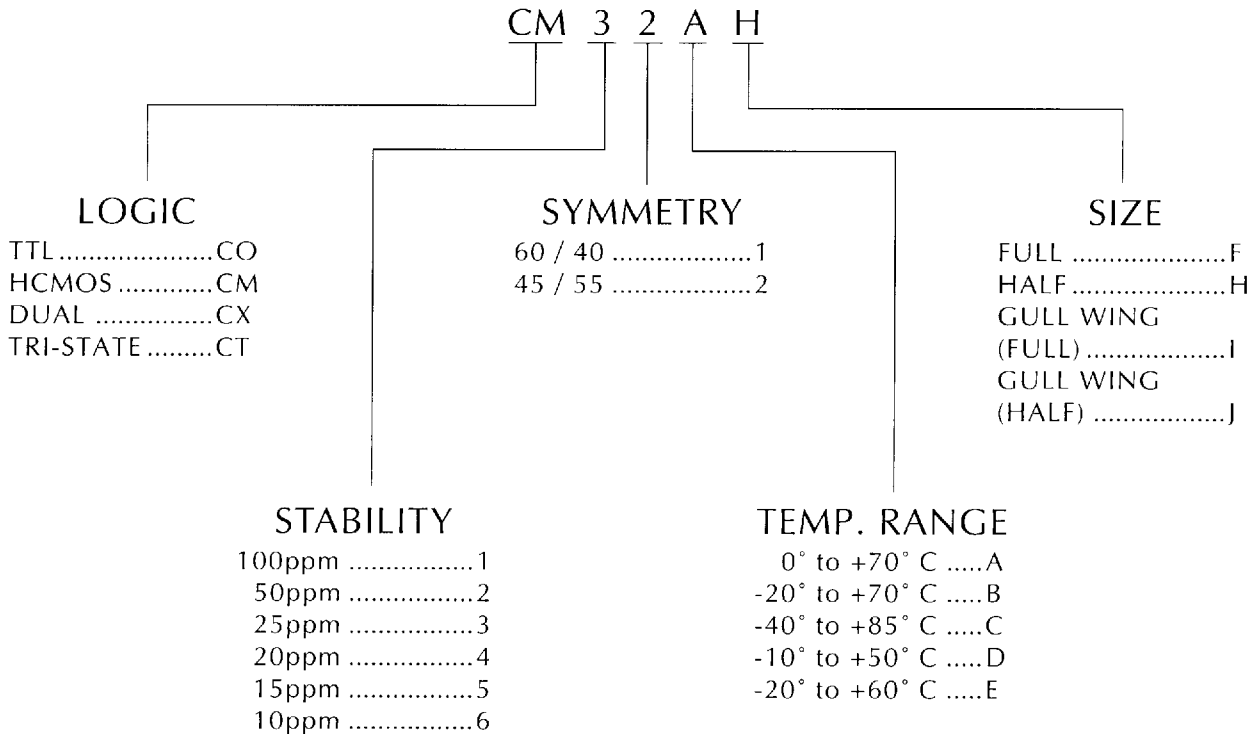
OPTIONS:

- Surface Mount (gull wing)
- Extended Temperature Ranges
- 45 / 55 Symmetry
- 25 ppm
- 15 ppm
- 10 ppm



State of the art oscillator plating system allows us to finish up to 500 oscillators per hour.

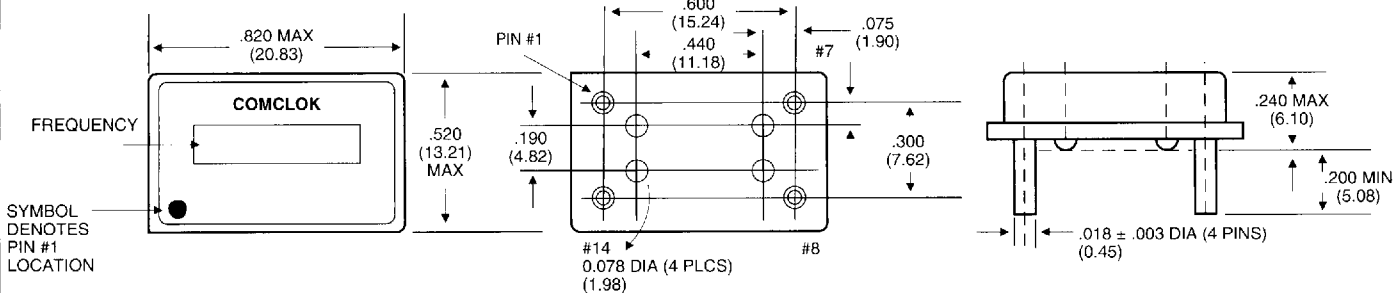
OSCILLATOR PART NUMBER GUIDE:



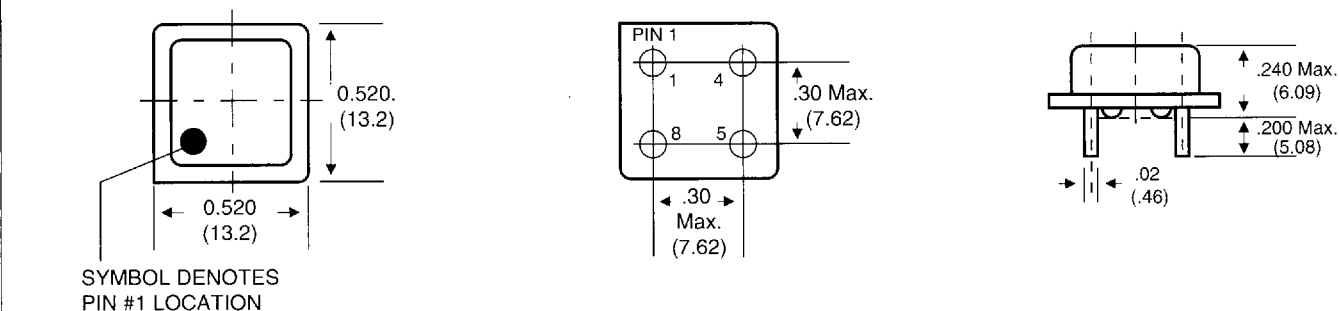
* (includes insulated stand offs)

DIMENSIONS

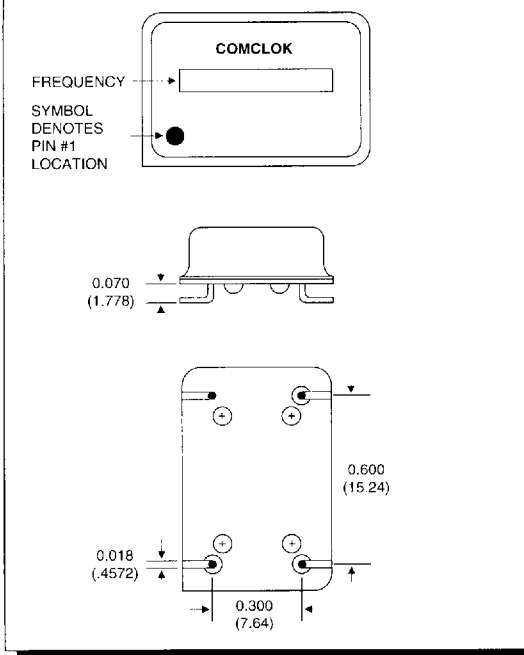
FULL SIZE 14 PIN DIP



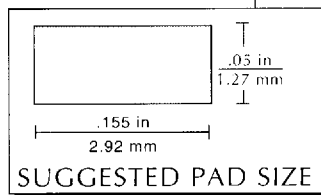
HALF SIZE 8 PIN DIP



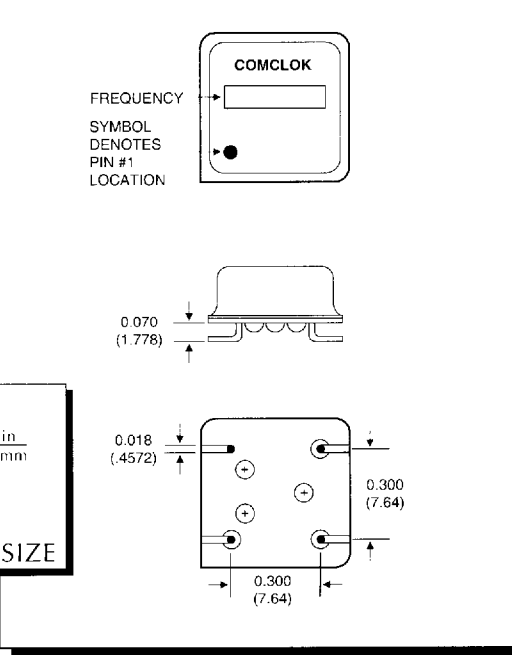
14-pin DIP Compatible, Gull Wing Leads



INCHES (MM)



8-pin DIP Compatible, Gull Wing Leads



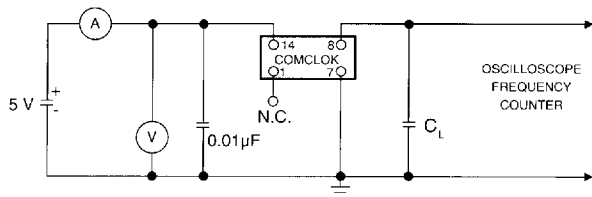
HCMOS SPECIFICATIONS

HCMOS CLOCK OSCILLATORS (FULL & HALF SIZE)

Frequency Range3.5 - 50.0 MHz *
 Frequency Stability100ppm, 50ppm, 25ppm
 Temperature Range
 Operating0° to 70° C
 Storage-55° to +125° C
 Input Voltage+5 VDC +/-10%
 Input Current
 3.5 - 19.999 MHz15 mA MAX.
 20.0 - 39.999 MHz30 mA MAX.
 40.0 - 50.0 MHz40 mA MAX.
 Symmetry60 / 40 @ 50% VCC
 Rise & Fall Time10ns MAX.
 Logic "1"4.5 VDC MIN.
 Logic "0"0.5 VDC MAX.
 Output Load15 to 50 pF

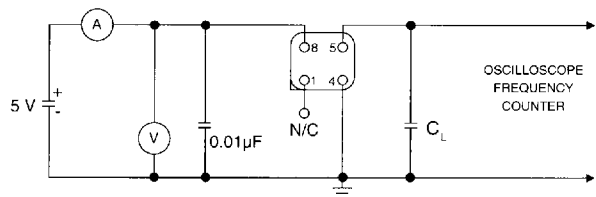
* (50.0 - 70.0 MHz under development)

Test Circuit Full Size



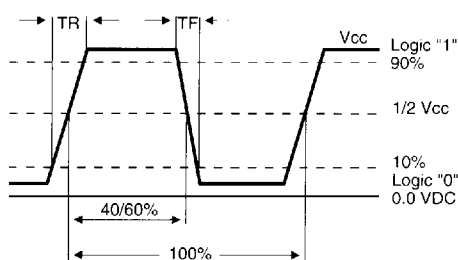
* Note: $C_L = 15\text{pF}$ Includes probe and jig capacitance.

Test Circuit Half Size



* Note: $C_L = 15\text{pF}$ Includes probe and jig capacitance.

Wave Shape



FULL SIZE

HCMOS	
PIN	CONNECTIONS
1	N.C.
7	GND
8	OUTPUT
14	+5 VDC +/- -10%

HALF SIZE

HCMOS	
PIN	CONNECTIONS
1	N.C.
4	GND
5	OUTPUT
8	+5 VDC +/- -10%

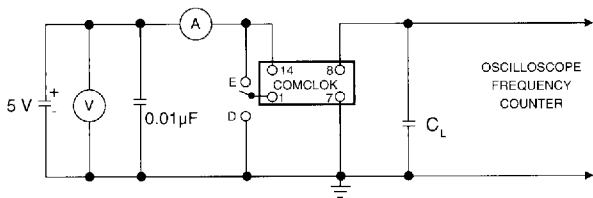
TRI-STATE SPECIFICATIONS

HCMOS / TTL / TRI-STATE ENABLE / DISABLE OSCILLATORS (FULL & HALF SIZE)

- Frequency Range 10 - 50 MHz*
- Frequency Stability 100ppm, 50ppm, 25ppm
- Temperature Range
 - Operating 0° to 70° C
 - Storage -55° to +125° C
- Symmetry 60 / 40 @ 50% VCC
- Rise & Fall Time 10 ns MAX. (CMOS LEVEL)
- Logic "1" 4.5 VDC MIN.
- Logic "0" 0.5 VDC MAX.
- Input Voltage + 5 VDC +/-10%
- Input Current
 - 10.0 - 19.999 MHz 15 mA MAX.
 - 20.0 - 39.999 MHz 30 mA MAX.
 - 40.0 - 50.0 MHz 40 mA MAX.
- Enable Input
 - Enable Logic "1" 2.0 VDC MIN.
 - Disable Logic "0" 0.5 VDC MAX.
- Output Current 16 mA
- Output Load 10 TTL GATES
MOS LOAD 50 pF

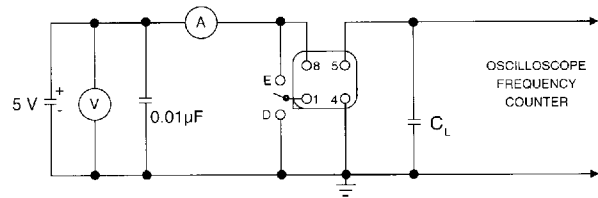
* (50 - 70 Mhz under development)

Test Circuit
Tri-State



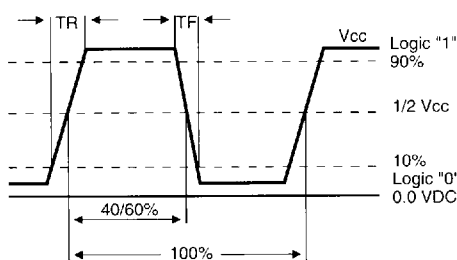
* Note: $C_L = 15\text{pF}$ Includes probe and jig capacitance.

Test Circuit
Tri-State



* Note: $C_L = 15\text{pF}$ Includes probe and jig capacitance.

Wave Shape



FULL SIZE

TRI-STATE	
PIN	CONNECTIONS
1	ENABLE/DISABLE
7	GND
8	OUTPUT
14	+5 VDC +/-10%

HALF SIZE

TRI-STATE	
PIN	CONNECTIONS
1	ENABLE/DISABLE
4	GND
5	OUTPUT
8	+5 VDC +/-10%

TTL SPECIFICATIONS

TTL CLOCK OSCILLATORS (FULL SIZE)

Frequency Range	250 KHz - 4.0 MHz	4.0 - 25.0 MHz	25.0 - 70.0 MHz
Frequency Stability	100ppm, 50ppm, 25ppm	100ppm, 50ppm, 25ppm	100ppm, 50ppm, 25ppm
Temperature Range			
Operating	0° to 70° C	0° to 70° C	0° to 70° C
Storage	-55° to +125° C	-55° to +125° C	-55° to +125° C
Input Voltage	+5 V DC +/-10%	+5 V DC +/-10%	+5 V DC +/-10%
Input Current.....	80 mA MAX.	50 mA MAX.	50 mA MAX. 25.0 - 50.0 MHz 65 mA MAX. 50.0 - 70.0 MHz
Symmetry	60/40% 1.4 VDC	60/40% @ 1.4 VDC	60/40% @ 1.4 VDC
Rise and fall time	10ns MAX.	10ns MAX.	10ns MAX. 25.0 - 50.0 MHz 6ns MAX. 50.0 - 70 MHz
"0" Level	+0.5V MAX.	+0.5V MAX.	+0.5V MAX.
"1" Level	+2.4V MIN.	+2.4V MIN.	+2.4V MIN.
Output load.....	1-10 TTL Gates	1-10 TTL Gates	1-10 TTL Gates 25.0 - 50.0 MHz 1-5 TTL Gates 50.0 - 70.0 Mhz

TTL (HALF SIZE)

Frequency Range	10.0-50.0 MHz
Frequency Stability	100ppm, 50ppm, 25ppm
Temperature Range	
Operating	0° to 70° C
Storage	-55° to + 125° C
Input Voltage	+5 VDC +/-10%
Input Current.....	50mA MAX.
Symmetry	60/40 @ 1.4 VDC Level
Rise & Fall time	10ns MAX.
"0" Level	+0.5 VDC MAX.
"1" Level	+2.4 VDC MIN.
Output	1-10 TTlGates

FULL SIZE

TTL	
PIN	CONNECTIONS
1	N.C.
7	GND
8	OUTPUT
14	+5 VDC +/-10%

HALF SIZE

TTL	
PIN	CONNECTIONS
1	N.C.
4	GND
5	OUTPUT
8	+5 VDC +/-10%

Test Circuit Full Size

Wave Shape

Test Circuit Half Size

Note:

1. Capacitance includes probe and jig capacitance.
2. All diodes are 1N914 or 1N43064 or equivalent.
3. Use a frequency meter for output frequency measurement and an oscilloscope for wave shape measurements.