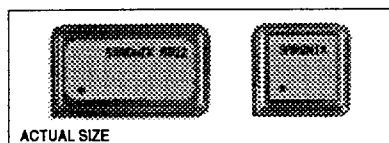
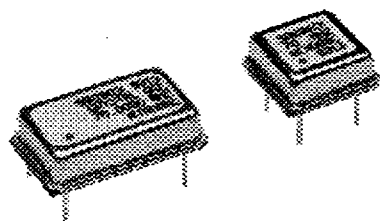


Technical Data

NTH / NCH Series



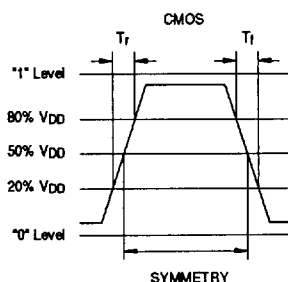
Description

A crystal controlled, low current oscillator providing precise rise and fall times to drive High Speed HCMOS and NMOS microprocessors. The tri-state function on the NTH enables the output to go high impedance. Device is packaged in a 14 or an 8-pin DIP compatible resistance welded, all metal grounded case, to reduce EMI.

Applications & Features

- Clock 16 and 32 bit microprocessors
- Tri-State output on NTH
- HCMOS compatible
- Available up to 50 MHz
- Grounded, all metal full size or half size case

Output Waveform



Frequency Range: 1.5 MHz to 50 MHz

Frequency Stability: ± 25 , ± 50 or ± 100 ppm over all conditions: calibration tolerance, operating temperature, input voltage change, load change, aging, shock and vibration.

Temperature Range:
Operating: 0°C to $+70^{\circ}\text{C}$ (extended temperature range available)
Storage: -55°C to $+125^{\circ}\text{C}$

Supply Voltage:
Recommended Operating: $+3.0\text{V} \pm 10\%$, $+3.3\text{V} \pm 10\%$
Absolute Maximum: $+7\text{VDC}$

Supply Current:
 30pF Load
 typ / max
 Frequency: to 30 MHz 20 / 45mA
 30+ to 50 MHz 22 / 45mA

Output Drive:

HCMOS

Symmetry: $50 \pm 5\%$ at .5 VDD
Rise and Fall Times: 20% to 80% VDD: $T_r = 4\text{ns max}$, $T_f = 4\text{ns max}$
Logic "0": 10% VDD max
Logic "1": 90% VDD min
Output Load: 30pF

Mechanical:

Shock: MIL-STD-883, Method 2002, Condition B
Solderability: MIL-STD-883, Method 2003
Terminal Strength: MIL-STD-202, Method 211, Conditions A and C
Vibration: MIL-STD-883, Method 2007, Condition A
Solvent Resistance: MIL-STD-202, Method 215
Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition B

Environmental:

Gross Leak Test: MIL-STD-883, Method 1014, Condition C
Fine Leak Test: MIL-STD-883, Method 1014, Condition A2
 $< 5 \times 10^{-8}$ ATM cc/sec
Thermal Shock: MIL-STD-883, Method 1011, Condition A
Moisture Resistance: MIL-STD-883, Method 1004

8003329 0000194 561

DS-159 REV 02

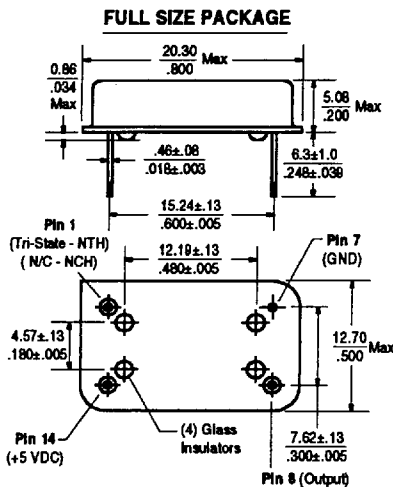
June 1995

0.0

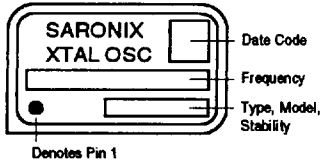
Technical Data

NTH / NCH Series

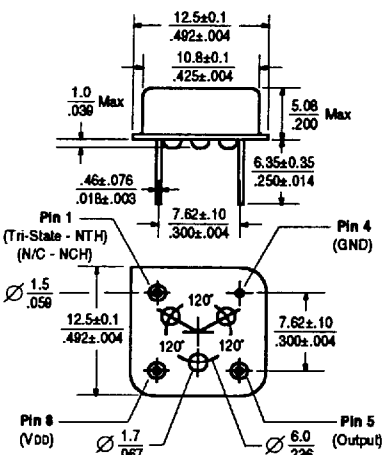
Package Details



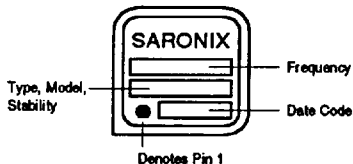
Standard Marking Format



HALF SIZE PACKAGE

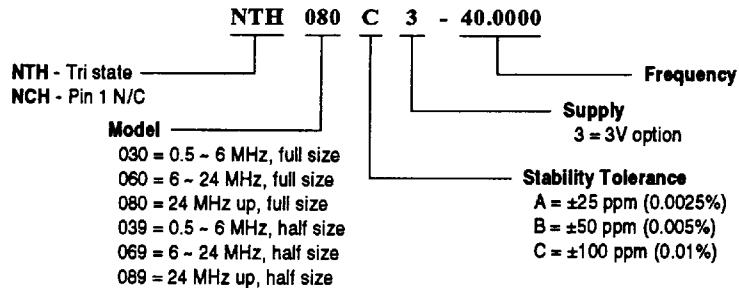


Standard Marking Format



Scale: None (Dimensions in mm / inches)

Part Numbering Guide



Example PN: NTH080C3 - 32.0000

Tri-State Logic Table (NTH only)

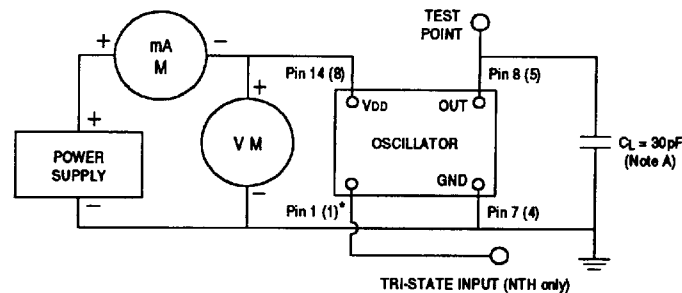
Pin 1 Input	Pin 8 (5) Output
Logic "1" or NC	Oscillation
Logic "0" or GND	High Impedance

Required Input Levels on Pin 1:

Logic "1" = 2.0V minimum

Logic "0" = 0.8V maximum

Test Circuit



NOTE A: C_L includes probe and fixture capacitance
 * () Indicates pin numbers for half-size package

49373 N

All specifications are subject to change without notice.

DS-159 REV 02 June 1995 0.0