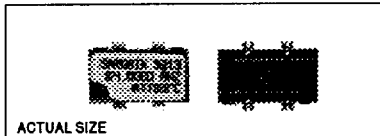
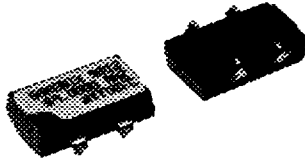


Technical Data

NTH Series, Type F



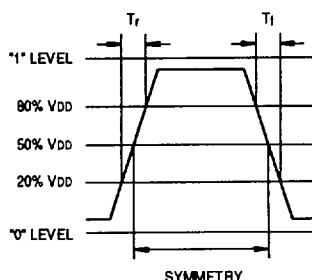
Description

A crystal controlled, low current oscillator providing rise and fall times to drive HCMOS and NMOS microprocessors. The plastic-molded surface mountable package is ideal for today's automated assembly environments. J-leads are compatible with EIA standard footprints.

Applications & Features

- Designed for 3 Volt applications
- Compact, plastic-molded, surface mountable package
- Tri-State output
- Low Voltage CMOS & HCMOS compatible
- Frequency range from 1.5 to 50 MHz
- Perfect for PC's, laptop, palmtop computers; portable applications; disc drives - anywhere small size, low power and surface mountability are a priority.
- Available in embossed tape & reel

Output Waveform



Frequency Range:	1.5 MHz to 50 MHz
Frequency Stability:	±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°C (extended temperature range available)
Storage:	-55°C to +125°C

Supply Voltage:	+3.0 VDC ±10%, +3.3 VDC ±10%
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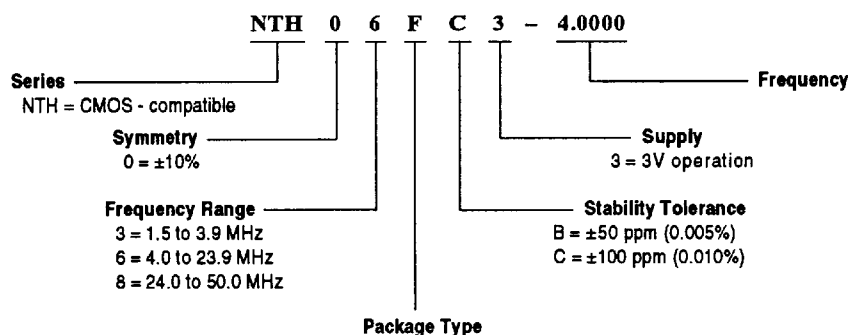
Supply Current:	
1.5 MHz to 34 MHz:	8mA max
Above 34 MHz:	12mA max

Output Drive:	
Symmetry:	50 ±10% @ 50% VDD
Rise & Fall Times:	20% to 80% VDD: Tr / Tf = 10ns max
Logic 0:	10% VDD max
Logic 1:	90% VDD min
Output Load:	15 pF max

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:	
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

Part Numbering Guide



Example PN: NTH08FC3 - 36.0000

8003329 0000204 230

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Technical Data

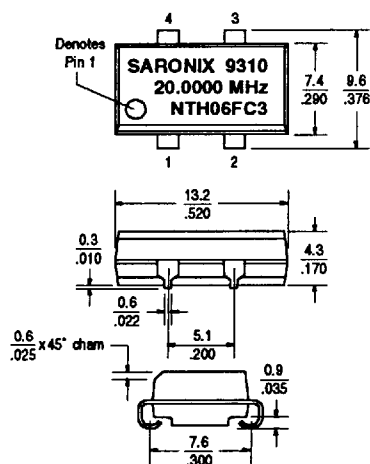
NTH Series, Type F

Tri-State Logic Table

Pin 1 Input	Pin 3 Output
Logic "1" or NC	Oscillation
Logic "0" or GND	High Impedance

Required Input Levels on Pin 1:
 Logic "1" = 90% VDD min
 Logic "0" = 10% VDD max

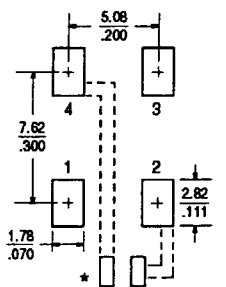
Package Details, Type F



Pin Function:

Pin 1: Tri-State Control
 Pin 2: GND
 Pin 3: Output
 Pin 4: VDD

Recommended Land Pattern

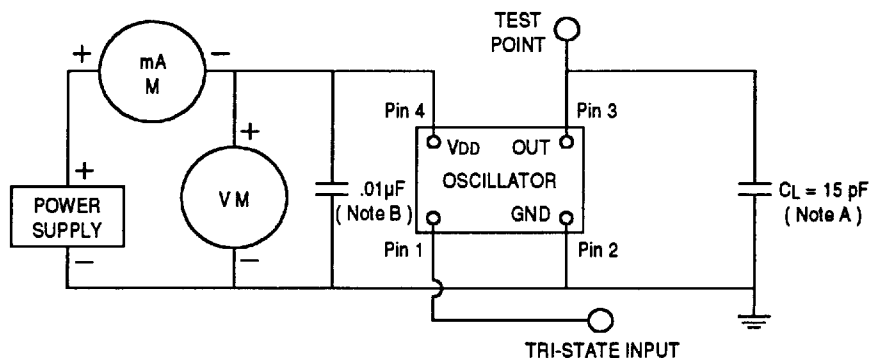


Tolerance: $\pm.13$
 $\pm.005$

* External high frequency power supply decoupling required.

Scale: None (Dimensions in $\frac{\text{mm}}{\text{inches}}$)

Test Circuit



NOTE: A. CL includes probe and fixture capacitance.
 NOTE: B. An external .01 μF bypass capacitor close to package ground and VDD pin is recommended

TEST CIRCUIT

49378 N

All specifications are subject to change without notice.

8003329 0000205 177

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