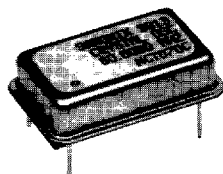


Technical Data

NCT Series



ACTUAL SIZE

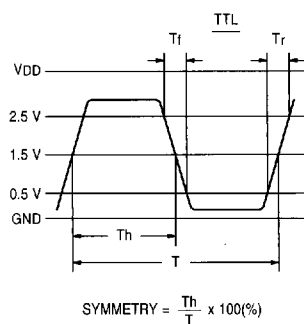
Description

A crystal controlled, hybrid oscillator circuit which produces a true TTL output characteristic at frequencies between 500 kHz and 66.6667 MHz. Device is mounted in a 14-pin DIP-compatible, all metal hermetic package. Physically and functionally interchangeable with all major manufacturers' devices.

Applications & Features

- Ideal for high performance RISC and CISC based products
- True TTL level for low EMI
- Broad frequency range to 66.6667 MHz

Output Waveform



Frequency Range:	500 kHz to 66.6667 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°C Storage: -55°C to +125°C	
Supply Voltage:	+5 VDC ±10%	
Supply Current:	Maximum at 25°C	Maximum over Temperature
250 kHz to 20 MHz:	30mA	40mA
20 MHz up:	55mA	65mA
TTL Output:	Symmetry: 50% ±10% at 1.5V DC level Rise & Fall Times: 8ns max for 500 kHz to 25 MHz 6ns max for 25 MHz to 66.6667 MHz "0" Level: +0.5V max "1" Level: +2.5V min Output Load: 1 to 10 TTL gates (1.6mA per gate)	
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 A <5 x 10 ⁻⁸ ATM cc/sec Thermal Shock: MIL-STD-883, Method 1011, Condition A Moisture Resistance: MIL-STD-883, Method 1004	

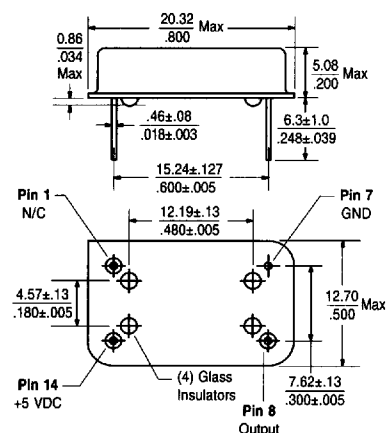
Part Numbering Guide:

Type	NCT	050	C	-	4.0000	Frequency
Model						Stability Tolerance:
040 = 500 kHz ~ 3.9999 MHz						A = ±25 ppm (0.0025%)
050 = 4.0000 MHz ~ 20.0000 MHz						B = ±50 ppm (0.005%)
070 = 20.0000+ MHz						C = ±100 ppm (0.010%)

Technical Data

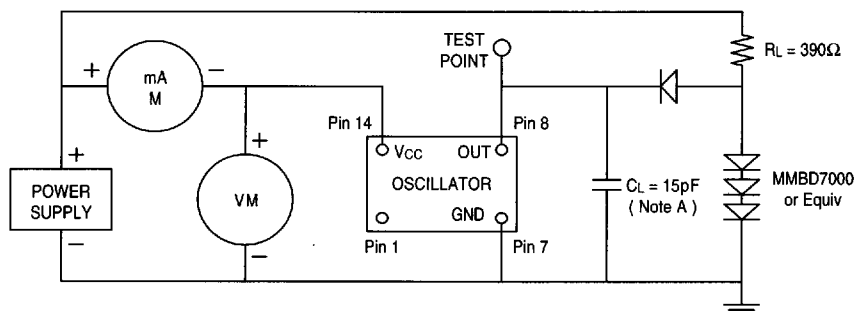
NCT Series

Package Details



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

Test Circuit



NOTE A: CL includes probe and fixture capacitance

All specifications are subject to change without notice.

DS-129 REV B

January 1995

2.2