

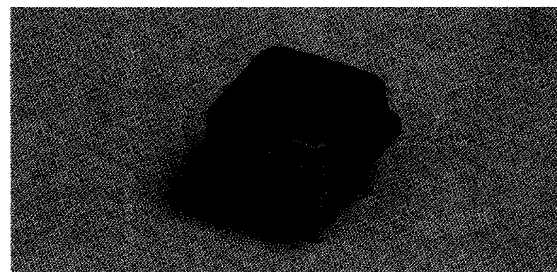


MONITOR PRODUCTS

975HHT HIGH SPEED CMOS

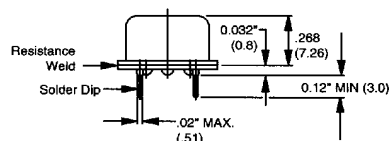
TRI-STATE ENABLE-DISABLE

CLOCK OSCILLATOR (HIGH ENABLE CMOS INPUT)

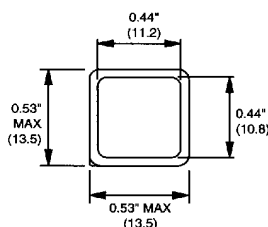
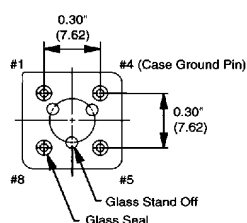


PACKAGE DIMENSIONS

975HHT:



PIN CONNECTION
#1: CONTROL
#4: GND
#5: OUT
#8: VDD



FEATURES

- EXTENDED FREQUENCY RANGE
- FULL PERFORMANCE IN HALF SIZE PACKAGE
- RUGGED RESISTANCE WELDED PACKAGE
- LOW PROFILE
- LOW POWER CONSUMPTION
- ADVANCED THICK FILM TECHNOLOGY
- SURFACE MOUNT OPTION

Monitor 975HHT clock oscillators are manufactured using advanced thick film technology and feature high performance with reliable operation. An all metal, resistance welded package ensures environmental protection and shielding to minimize EMI/RFI. A companion product, the Monitor 975H offers additional performance options in the half size package also. The 975HHT is capable of being wave soldered.

MONITOR'S FULL SIZE CLOCK OSCILLATORS are also available in LSTTL, TTL and ECL in the following configurations:

- | | |
|-----------------------------|---------------------------------------|
| • Frequency Range | 1.0 MHz to 100.0 MHz |
| • Operating Temp. Range | 0°C to 70°C |
| • Storage Temp. Range | -55°C to 125°C |
| • Supply Voltage | +5V $\pm$ 10% V_{CC} |
| • Frequency Stability | $\pm$ 100ppm (All conditions) |
| • Output Voltage | "0" Level 0.5V max. (10% V_{CC}) |
| | "1" Level 4.5V min. (90% V_{CC}) |
| • Waveform Symmetry | 50/50 $\pm$ 5% typ. $\pm$ 10% max. |
| | (V_{CC} = 5V, 50% V_{CC}) |
| • Rise and Fall Times | 5ns max., (TTL levels) |
| | 10ns max. (CMOS levels) |
| • Enable Input | "1" level 2.8V min. |
| • Disable Input | "0" level 0.5V max. |
| • Input Current | 6mA typ., 12mA max. — |
| | 4.000MHz - 20.999MHz |
| | 8mA typ., 30mA max. — |
| | 21.000MHz - 100.000MHz |
| • Driving Ability | 1-10 TTL gates, up to 20 LS-TTL gates |
| | CMOS 20pf or 10TTL compatible |
| | Optional to 50pf |
| • Enable/Disable Delay Time | 100ns max. |
| • Start Up Time | 10mS |

- INDEPENDENT DUAL OUTPUTS
- ENABLE/DISABLE
- TRI-STATE GATE
- COMPLIMENTARY OUTPUTS (ECL)
- SURFACE MOUNTING

MONITOR PRODUCTS COMPANY, INC. OVER HALF A CENTURY IN FREQUENCY CONTROL

502 Via Del Monte • Oceanside, CA 92054

Western Phone (619) 433-4510

Eastern Phone (904) 725-4384

Western FAX (619) 434-0255

Eastern FAX (904) 725-4584

ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

Ambient Temperature Range

Operating 0°C to 70°C Standard

Storage -55°C to 125°C

Vibration

MIL-STD-202F Method 204, 35G, 50 to 2000 Hz

Shock

MIL-STD-202F Method 213B Test Cond. E, 1000G, 1/2 Sine Wave

Humidity

85% RH, 85°C, 48 Hours

Hermetical seal

Leak Rate 2×10^{-8} ATM, CC/Sec of helium

Solderability

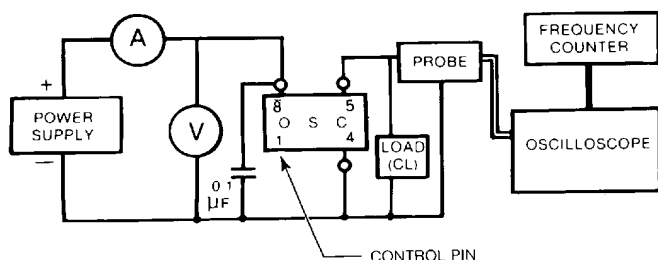
MIL-STD-202F Method 208E

POPULAR FREQUENCIES

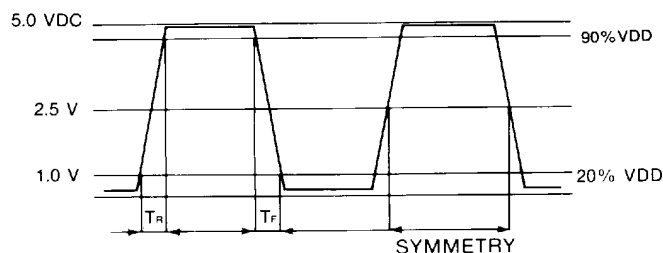
1.8432	15.0	36.0
4.0	16.0	40.0
8.0	18.432	48.0
10.0	20.0	50.0
12.0	24.0	64.0
14.31818	25.0	66.0
14.7456	32.0	66.66

OSCILLATOR TEST CIRCUIT

CL = Inclusive of Probe Capacitance



TYPICAL OUTPUT WAVEFORM



HOW TO ORDER

FAMILY: (975HHT)

SYMMETRY

1 = 40/60
2 = 55/45

CALIBRATION TOLERANCE (25°C)

B = 0.01%*

TEMPERATURE RANGE (°C)

2 = 0° to 70°*

FREQUENCY (MHz)

PACKAGING

A = Standard
C = Insertion Tube
D = Anti-Static
G = Type 1 Surface Mount
S = Type 4 Surface Mount

SURFACE MOUNT OPTIONS:

TYPE 1: Gullwing
TYPE 4: Glass Epoxy Base
X = Customer's Specification

*Standard

**Suffix "X" indicates a customer specification applies to device. Factory will assign part number.
Parts will be marked with family and frequency only. When ordering use the full descriptive part number.
Specifications subject to change without notice.
Not all options available in all product families, check family datasheet or call factory.

EXAMPLE: 975HHT1B2A-6.00