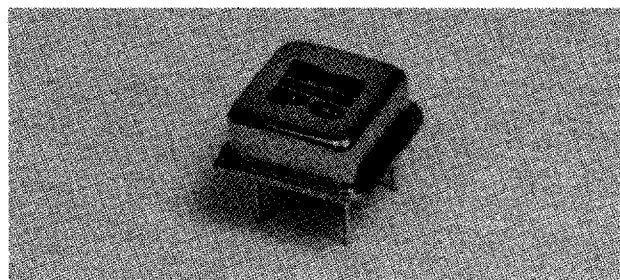




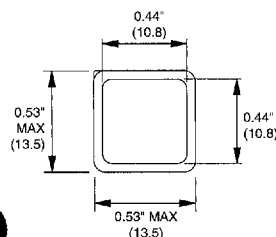
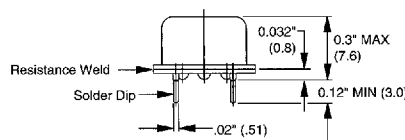
MONITOR PRODUCTS

975H

HIGH SPEED CMOS CLOCK OSCILLATORS (1/2 SIZE)

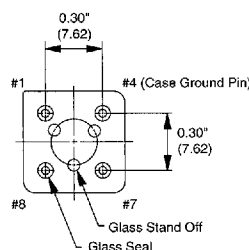


PACKAGE DIMENSIONS



975H

| | | | |
|--------|------|--------|-----|
| PIN 1. | N.C. | PIN 5. | OUT |
| PIN 4. | GND | PIN 8. | VDD |



FEATURES

- FULL PERFORMANCE IN HALF SIZE PACKAGE
- RUGGED RESISTANCE WELD PACKAGE
- LOW PROFILE
- LOW POWER CONSUMPTION
- SUPERIOR QUALITY
- ADVANCED THICK FILM TECHNOLOGY
- SURFACE MOUNT OPTION

ELECTRICAL SPECIFICATIONS

| | |
|-----------------------------|-------------------------|
| Frequency Range | 1.0 MHz to 100 MHz |
| Frequency Stability | $\pm 0.01\%$ (100ppm) |
| Operating Temperature Range | 0°C to 70°C |
| Storage Temperature Range | -55°C to 125°C |
| Supply Voltage | +5 VDC ± 0.5 V |
| Input Current | 15 mA (max) |
| Symmetry | 55/45% (max) |
| Rise and Fall Time | 5 nS (typ), 10 nS (max) |
| Start Up Time | 5.0 mS (max) |
| Start Up Voltage | 3.0 V (max) |
| Logic "0" Level | 0.4 V (max) |
| Logic "1" Level | 4.5 V (min) |

DRIVING ABILITY
FOR MOS LOAD

CL (max) = 50 pF

FOR TTL LOAD

FANOUT = 10 LS-TTL

Soldering Temperature Limits: 260° \pm 5°C for 10 Seconds.

The MONITOR 975H 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. The 975H is capable of being wave soldered. Enable/Disable and Enable Tri-State features are also available.

MONITOR PRODUCTS also offers full size clock oscillators in LSTTL, HCMOS and ECL in the following configurations:

- INDEPENDENT DUAL OUTPUTS
- DUAL OUTPUT DIVIDE BY 2
- DUAL OUTPUT DIVIDE BY 4
- ENABLE/DISABLE
- TRISTATE GATE
- COMPLIMENTARY OUTPUTS
- SURFACE MOUNTING

MONITOR PRODUCTS COMPANY, INC. OVER HALF A CENTURY OF 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, $\frac{1}{2}$ Sine Wave

Humidity

85% RH, 85°C, 48 Hours

Hermetic Seal

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

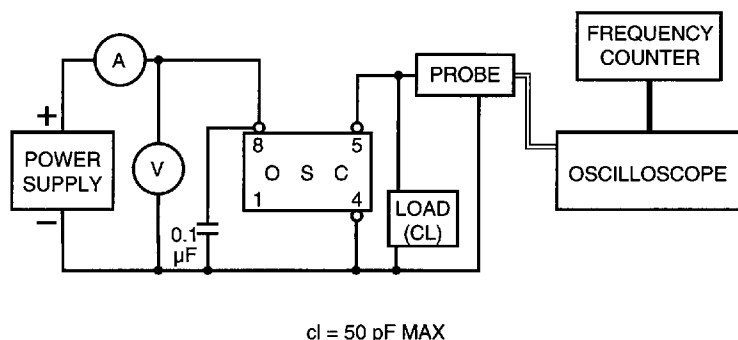
Solderability

MIL-STD-202F Method 208E

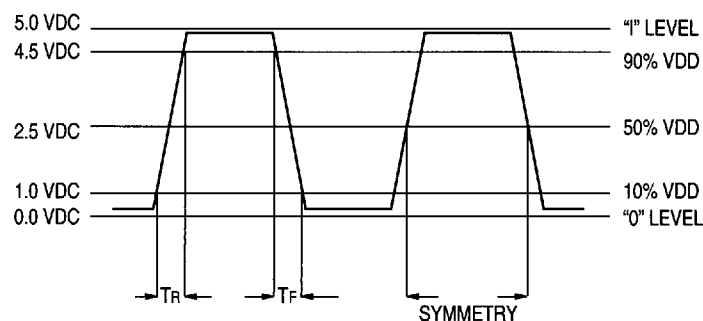
POPULAR FREQUENCIES (MHZ)

| | | |
|----------|--------|--------|
| 8.0 | 16.0 | 36.0 |
| 10.0 | 18.432 | 40.0 |
| 12.0 | 20.0 | 48.0 |
| 14.31818 | 24.0 | 50.0 |
| 14.7456 | 25.0 | 66.666 |
| 15.0 | 32.0 | 80.0 |
| | | 100.0 |

TEST CIRCUIT



TYPICAL OUTPUT WAVEFORM



HOW TO ORDER

EXAMPLE: 975H2B2A-10.000

FAMILY: (975H)

SYMMETRY

2 = 55/45*

CALIBRATION TOLERANCE (25°C)

B = 0.01%*

TEMPERATURE RANGE

2 = 0° to 70 °C

FREQUENCY (MHz)

PACKAGING

A = Standard
 C = Insertion Tube
 D = Anti-Static
 G = Type 1 Surface Mount
 J = Type 2 Surface Mount
 S = Type 4 Surface Mount

SURFACE MOUNT OPTIONS:

TYPE 1: Gullwing
 TYPE 2: "J" Lead
 TYPE 4: Glass Epoxy Base

X = Customer 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.

Not all options available in all product families, check family data sheet or call factory.

Specifications subject to change without notice.