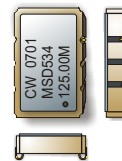


CRYSTAL CONTROLLED OSCILLATORS

SURFACE MOUNT "J" LEADED HCMOS
CLOCK OSCILLATOR



MSD534

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

| PARAMETER | UNITS | MINIMUM | NOMINAL | MAXIMUM | UNITS | NOTE |
|---------------------|-------|---------|---------|---------|-------|------|
| Storage Temperature | | -55 | - | 125 | °C | |
| Supply Voltage | (Vcc) | -0.5 | - | 7 | Vdc | |

OPERATING SPECIFICATIONS

TABLE 2.0

| PARAMETER | | MINIMUM | NOMINAL | MAXIMUM | UNITS | NOTE |
|----------------------------------|-------|---------|---------|---------|--------|------|
| Frequency Range | (Fo) | 2 | - | 115 | MHz | |
| Total Frequency Tolerance | | -100 | - | 100 | ppm | 1 |
| Operating Temperature Range | | 0 | - | 70 | °C | |
| Supply Voltage | (Vcc) | 4.50 | 5.00 | 5.50 | Vdc | |
| Supply Current | (Icc) | - | - | 50 | mA | |
| Jitter (BW=10Hz to 20MHz) | | - | - | 5 | ps rms | |
| Jitter (BW=12kHz to 20MHz) | | - | - | 1 | ps rms | |
| SSB Phase Noise at 10Hz offset | | - | -60 | - | dBc/Hz | |
| SSB Phase Noise at 100Hz offset | | - | -90 | - | dBc/Hz | |
| SSB Phase Noise at 1KHz offset | | - | -125 | - | dBc/Hz | |
| SSB Phase Noise at 10KHz offset | | - | -135 | - | dBc/Hz | |
| SSB Phase Noise at 100KHz offset | | - | -140 | - | dBc/Hz | |

INPUT CHARACTERISTICS

TABLE 3.0

| PARAMETER | | MINIMUM | NOMINAL | MAXIMUM | UNITS | NOTE |
|---------------------------|-------|---------|---------|---------|-------|------|
| Tri-state Enable Voltage | (Vih) | ≥70%Vcc | - | - | Vdc | 2 |
| Tri-state Disable Voltage | (Vil) | - | - | ≤30%Vcc | Vdc | 2 |

HCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

| PARAMETER | | MINIMUM | NOMINAL | MAXIMUM | UNITS | NOTE |
|-----------------------------|-------|------------|---------|------------|-------|------|
| LOAD | | - | - | 50 | pF | |
| Voltage (High) | (Voh) | ≥ 0.9(Vcc) | - | - | Vdc | |
| (Low) | (Vol) | - | - | ≤ 0.1(Vcc) | Vdc | |
| Current (High) | (Ioh) | -16 | - | - | mA | |
| (Low) | (Iol) | - | - | 16 | mA | |
| Duty Cycle at 50% of Vcc | | 45 | 50 | 55 | % | |
| Rise / Fall Time 10% to 90% | | - | 1.5 | 3 | nS | |

PACKAGE CHARACTERISTICS

TABLE 5.0

| | |
|---------|--|
| Package | Hermetically sealed, ceramic package with gold plated J leads. |
|---------|--|

Note:

- 1) Inclusive of calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 20 years aging.
- 2) Oscillator output is enabled with no connection on pad 1

DESCRIPTION

The Connor-Winfield MSD534 is a hermetically sealed surface mount 5.0V Crystal Controlled Oscillator (XO) HCMOS/TTL Compatible. The MSD534 is designed for applications requiring low jitter and tight stability.

FEATURES

- 5.0V OPERATION
- LOW JITTER <1ps RMS
- FREQUENCY TOLERANCE: ±100ppm
- TEMPERATURE RANGE: 0 to 70°C
- TRI-STATE ENABLE/DISABLE FUNCTION
- "J" LEADED SURFACE MOUNT PACKAGE
- TAPE AND REEL PACKAGING

ORDERING INFORMATION

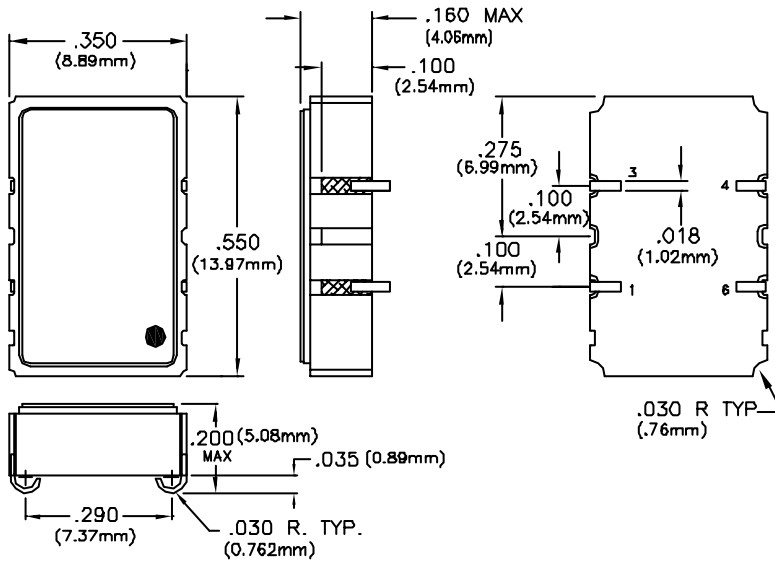
MSD534 - 125.00 MHz

HCMOS
CLOCK
SERIES

CENTER
FREQUENCY

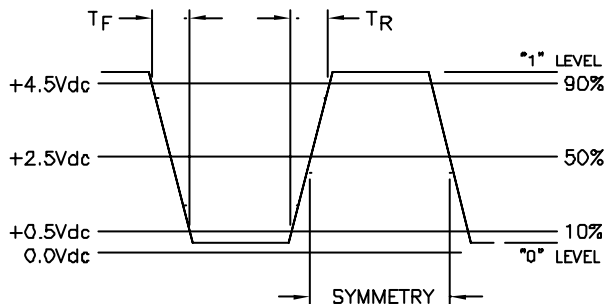
Specifications subject to change without notice.

CRYSTAL CONTROLLED OSCILLATORS

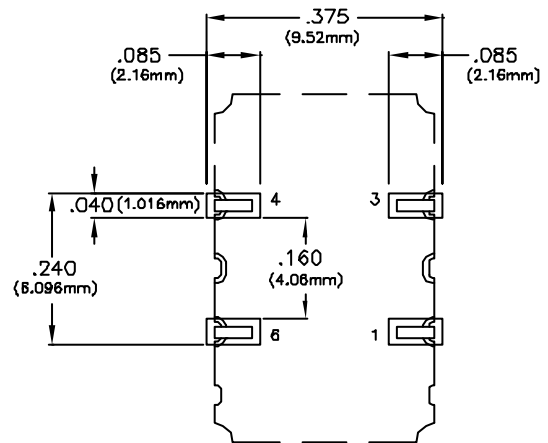


| PAD | CONNECTION |
|-----|---------------|
| 1 | E/D TRI-STATE |
| 3 | GROUND |
| 4 | OUTPUT |
| 6 | Vcc |

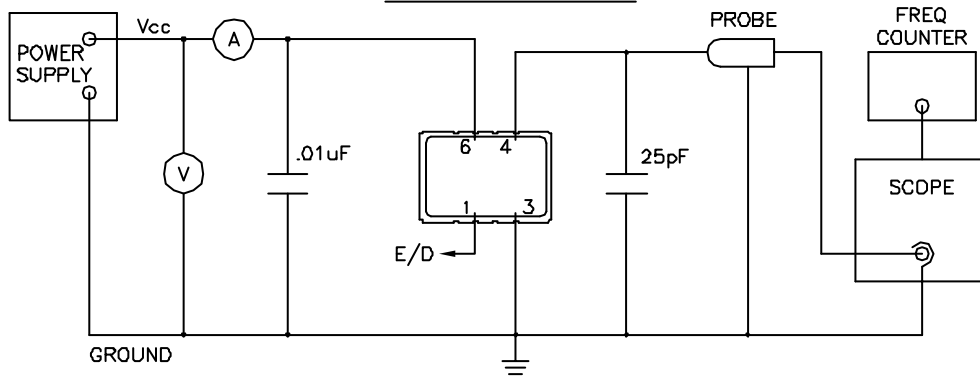
OUTPUT WAVEFORM



SUGGESTED PAD LAYOUT



TEST CIRCUIT



Specifications subject to change without notice.