

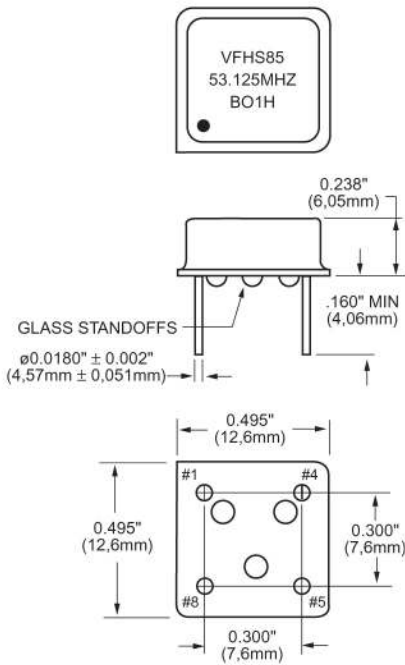
VFHS85



HCMOS Half Size DIP Clock Oscillators

FEATURES

- Tristate Available
- Extended Temperature Ranges
- Tight Symmetry Available
- Common Footprint



All dimensions are typical unless otherwise specified.

Creating a Part Number
VFHS85 [] [] - [] [] - **FREQ.**

| FREQUENCY STABILITY | |
|---------------------|-----------------|
| Code | Specification |
| S | ±20 ppm |
| A | ±25 ppm |
| B | ±50 ppm |
| H | ±100 ppm (std.) |
| C | ±500 ppm |

| DUTY CYCLE | |
|------------|---------------|
| Code | Specification |
| HH | ±2.5% |
| H | ±5% |
| | ±10% (std.) |

| INPUT VOLTAGE | |
|---------------|---------------------|
| Code | Specification |
| L | 3.3 Volt ±5% |
| | 5.0 Volt ±5% (std.) |

| LEAD CONFIGURATION | |
|--------------------|---------------------|
| Code | Specification |
| GR | Gull Wing |
| G | Gull Wing |
| | Through Hole (std.) |

| OUTPUT | |
|--------|---------------------|
| Code | Specification |
| T | Tristate |
| | non-tristate (std.) |

| OPERATIONAL TEMP. RANGE | |
|-------------------------|---------------------|
| Code | Specification |
| | 0°C to +70°C (std.) |
| 1 | -40°C to +85°C |
| 2 | -55°C to +125°C |

Example: VFHS85BHL-1GR-53.125MHz: Frequency Stability ±20ppm, Duty Cycle ±5.0%, Input Voltage 3.3 Volt ±5%, Operational Temperature -40°C to +85°C, Gull Wing, Frequency 53.125MHz.

| | Parameter | Symb | Condition | Min | Typ | Max | Unit | Note |
|------------------------------|--------------------------------|---|--|--------------------|--------------|--------------------|------|----------------------|
| Absolute Max. Ratings | Input Break Down Voltage | V _{cc} | | -0.5 | | 7.0 | V | |
| | Storage Temp. | T _s | | -55 | | +125 | °C | |
| Electrical | Frequency Range | F | | 1.0 | | 70 | MHz | |
| | Frequency Stability | ΔF/F | Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration | | | ±100 | ppm | 1 |
| | Input Voltage | V _{cc} | | 4.75 3.15 | 5.00 3.30 | 5.25 3.45 | V | Std. LV Opt. |
| | Input Current | I _{cc} | No load | | | 50 | mA | 2 |
| | Load | 15pF or 10 LSTTL gates | | | | | | |
| | Duty Cycle | | @50% V _{cc} | 40 | 50 | 60 | % | 3 |
| | Rise/Fall Time | T _r /T _f | | | | 3 | ns | |
| | Logic "1" Level | V _{oh} | Max Load | 0.9V _{cc} | | | V | |
| | Logic "0" Level | V _{ol} | Max Load | | | 0.1V _{cc} | | |
| | Start-up Time | T _s | | | 2 | 10 | ms | |
| | Phase Jitter | | 1σ | | | 1 | ps | f _j >1KHz |
| | Tristate Function | Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE | | | | | | |
| Enable/Disable Time | T _e /T _d | | | | | 100 | ns | |
| Environmental and Mechanical | Operating Temperature Range | 0°C to +70°C (-40°C to +85°C, and -55°C to +125°C available) | | | | | | |
| | Mechanical Shock | Per MIL-STD-202, Method 213, Cond. E | | | | | | |
| | Thermal Shock | Per MIL-STD-883, Method 1011, Cond. A | | | | | | |
| | Vibration | Per MIL-STD-883, Method 2007, Cond. A | | | | | | |
| | Soldering Conditions | 260°C, for 10s, Max. | | | | | | |
| | Hermetic Seal | Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium | | | | | | |
| Electrical Connections | Pin Out | Pin #1-N/C or tristate Pin #4-Ground, Case Pin #5-Output Pin #8-Vcc | | | | | | |

- Notes:
1. ±50ppm, ±25ppm stability available.
 2. Current is load and frequency dependent.
 3. ±5%, and ±2.5% duty cycle available.
 4. Tristate available.

All specifications are subject to change without notice.