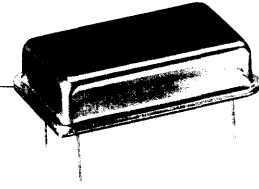


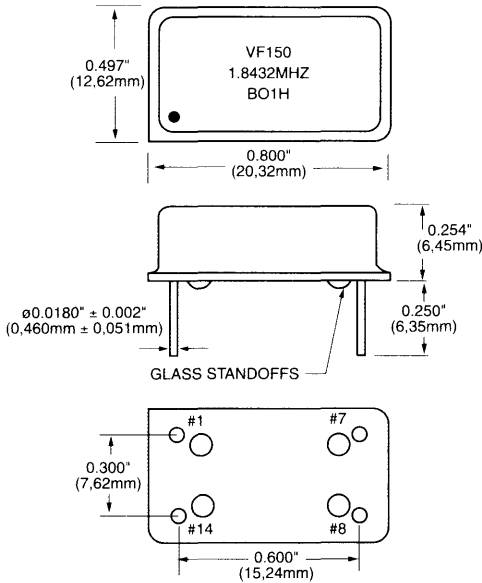
VF150



TTL Compatible Clock Oscillators

FEATURES

- Tristate Output Available
- Low Cost
- Industrial and Military Temperature Available
- Wide Frequency Range
- Very Low Phase Jitter



All dimensions are typical unless otherwise specified.

| Parameter | Symb | Condition | Min | Typ | Max | Unit | Note | |
|------------------------------|---|---|--|-----------------------------------|--------------|--------|--------------|---|
| Absolute Max. Ratings | Input Break Down Voltage | Vcc | -0.5 | | 7.0 | V | | |
| | Storage Temp. | Ts | -55 | | +125 | °C | | |
| Electrical | Frequency Range | F | 0.2 | | 130 | MHz | | |
| | Frequency Stability | ΔF/F | Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration | | ±100 | ppm | 1 | |
| | Input Voltage | Vcc | 4.75 3.15 | 5.00 3.30 | 5.25 3.45 | V | Sid. LV Opt. | |
| | Input Current | Icc | F = 50MHz 15pF, load Vcc 5V | | 40 | mA | 2 | |
| | Load | 10 TTL gates or 50pF Max. | | | | | | |
| | Duty Cycle | | @1.4V | 40 | 50 | 60 | % | 3 |
| | Rise/Fall Time | Tr/Tf | 0.4V to 2.4V 20% to 80% | | | 4.0 | ns | |
| | Logic "1" Level | Voh | Max Load | 0.9Vcc | | | V | |
| | Logic "0" Level | Vol | Max Load | | | 0.1Vcc | V | |
| | Start-up Time | Ts | | | 2 | 10 | ms | |
| Phase Jitter | | 1σ | | | 1 | ps | fj>1KHz | |
| Tristate Function | Input HIGH (>2.5V) or floating: Input LOW (<0.5V): | | ACTIVE INFINITE IMPEDANCE | | | | | |
| Enable Time | | | | | 100 | ns | | |
| Environmental and Mechanical | Operating Temperature Range | 0°C to +70°C (-40°C to +85°C, -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-Tristate Control or N/C Pin #3-Output | | Pin #2-Ground, Case Pin #4-Vcc | | | | |

Environmental and Mechanical
Electrical Connections

- Notes:
1. Standard frequency stability (±20, ±25, ±50, others available).
 2. Current is load and frequency dependent.
 3. Tighter duty cycles available.

All specifications are subject to change without notice.

Creating a Part Number
VF150 [] [] [] [] - **FREQ.**

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

| LEAD CONFIGURATION | |
|--------------------|---------------|
| Code | Specification |
| G | Gull Wing |
| | Through hole |

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

| OUTPUT | |
|--------|---------------|
| Code | Specification |
| T | Tristate |
| | Std. |

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

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

*Not always available

Example: VF150A-2G-25MHz: Frequency Stability ±50ppm, Duty Cycle ±10%, Input Voltage 3.3 Volt ±5%, Operating Temperature -40°C to +85°C, Output Non-Tristate, Lead Configuration Straight, Frequency 1.8432MHz.