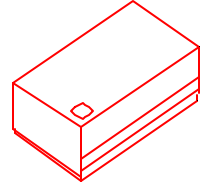




VC2 & VC3 VCXO SERIES

- LEADLESS SURFACE MOUNT PACKAGE: PC BOARD BASE/METAL COVER
- VC2 WITHOUT TRI-STATE, VC3 WITH TRI-STATE OPTION



STANDARD SPECIFICATIONS:

| | |
|---|---|
| Frequency Range | 1.500 MHz - 60.000 MHz (Consult factory for specific available frequencies) |
| Operating Temperature Range | 0 - 70°C is standard, but can be extended to -40 to +85°C. |
| Frequency Stability over Operating Temperature Range and Supply Voltage | ± 15, 25, 50, and 100 PPM available |
| Aging at 25°C ± 5°C | 3 PPM first year, 1 PPM per year thereafter |
| Input Voltage | 5 ± 5% Volt is standard, but 3.3V also available |
| Output Logic Level | HCMOS/TTL Compatible |
| Input Current (Icc) & Rise & Fall Time (Tr & Tf) | Depends on frequency. See table on next page. |
| Output Load | CMOS Load + 15 pF |
| Control Voltage Range | 2.5V ± 2.0V for Vcc = 5.0V, 1.65V ± 1.32V for Vcc = 3.3V |
| Frequency Deviation (Pullability) over the Control Voltage Range | ± 25, 50, 100, 150, and 200 PPM available Consult factory for ± 300 PPM |
| Linearity | ± 10% is standard. Consult factory for ± 5% |
| Tri-State Output (VC3 only) | Normal output when pin #2 is open (optional); Normal output when pin #2 is at logic "1"; High-impedance output when pin #2 is at logic "0". |
| Packaging (see page R1, Figure 3) | 28 parts per tube or 24mm tape, 330mm reel: 500 parts per reel |

PART NUMBERING GUIDE

- The Pletronics part number for this VCXO series consists of the following 5 elements:

1. Model Number (Input Voltage):

VC22H = 5V without Tri-State VC32H = 5V with Tri-State
 3VC22H = 3.3V without Tri-State 3VC32H = 3.3V with Tri-State

2. Frequency Stability:

VC22H15: ±15 PPM VC22H50: ±50 PPM
 VC22H25: ±25 PPM VC22H100: ±100 PPM

3. Operating Temperature Range:

VC22H100A: 0 to +50°C VC22H100B: 0 to +70°C
 VC22H100C: -10 to +70°C VC22H100D: -20 to +75°C
 VC22H100E: -30 to +75°C VC22H100F: -40 to +85°C

4. Frequency Deviation over Control Voltage Range:

VC22H100AT: ±25 PPM VC22H100AV: ±50 PPM
 VC22H100AW: ±100 PPM VC22H100AX: ±150 PPM
 VC22H100AY: ±200 PPM VC22H100AZ: ±300 PPM

5. Frequency of Operation in MHz

EXAMPLE: VC22H100AW-12.800 MHz, 3VC22H25DZ-10.000 MHz, VC32H15FV-10.000 MHz

- When customer's requirements are non-standard, a special engineering part number will be assigned.

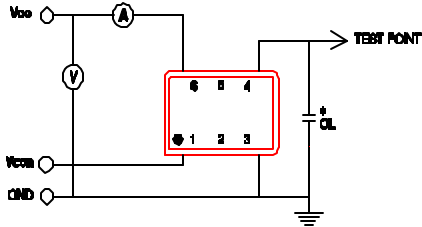
(continued)

VC2 & VC3 VCXO SERIES

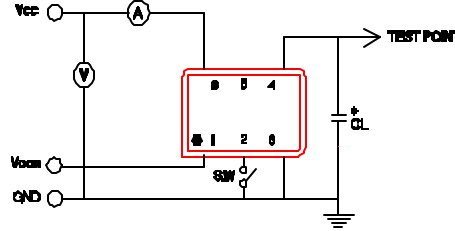
Input Current and Rise & Fall Time with 15 pF CMOS Load

| Freq. Range (MHz) | I _{cc} (mA) | | Tr & Tf (nS) | |
|-------------------|----------------------|-----|--------------|-----|
| | Typ | Max | Typ | Max |
| 1.500 – 20.000 | 10 | 15 | 3.5 | 5.0 |
| 20.001 – 30.000 | 20 | 25 | 3.0 | 4.5 |
| 30.001 – 50.000 | 25 | 30 | 3.0 | 4.0 |
| 50.001 – 60.000 | 30 | 35 | 2.5 | 3.5 |

Recommended Test Circuit for VC2

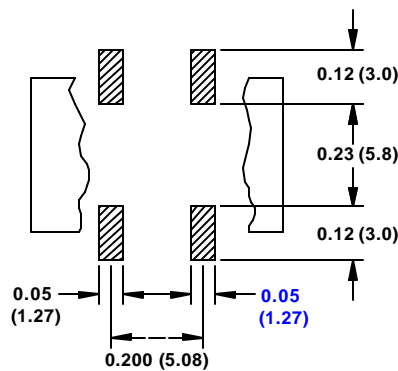
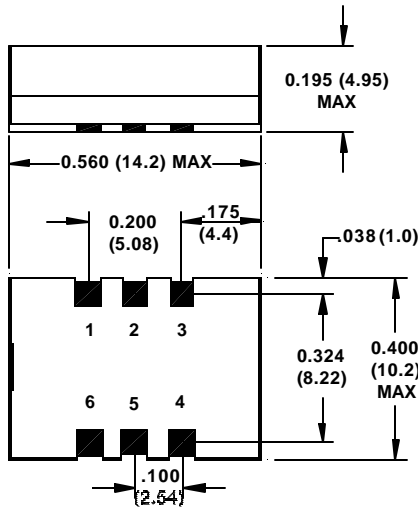


Recommended Test Circuit for VC3



*CL (Capacitive Load): Includes the input capacitance of oscilloscope.

Package Outlines (Not to Scale):



VC22 RECOMMENDED LAND PATTERN

| VC22 PIN CONNECTIONS | |
|----------------------|----------------|
| PIN | CONNECTION |
| 1 | Vcontrol |
| 2 | No Connection* |
| 3 | GROUND |
| 4 | OUTPUT |
| 5 | No Connection |
| 6 | Vcc |

* Do Not connect to Pin 2

INCHES (MILLIMETERS)

| VC32 PIN CONNECTIONS | |
|----------------------|------------------------|
| PIN | CONNECTION |
| 1 | Vcontrol |
| 2 | ENABLE/ DISABLE INPUT* |
| 3 | GROUND |
| 4 | OUTPUT |
| 5 | No Connection |
| 6 | Vcc |

* For Normal Operation: Pin 2 may be connected to Vcc or have no connection

