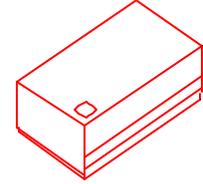




# VC2 & VC3 VCXO SERIES

- 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.

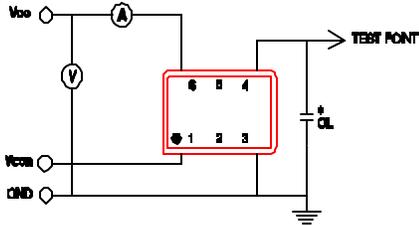
(continued)

# VC2 & VC3 VCXO SERIES

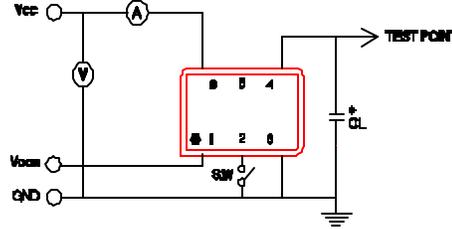
## Input Current and Rise & Fall Time with 15 pF CMOS Load

Freq. Range (MHz)	I <sub>cc</sub> (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

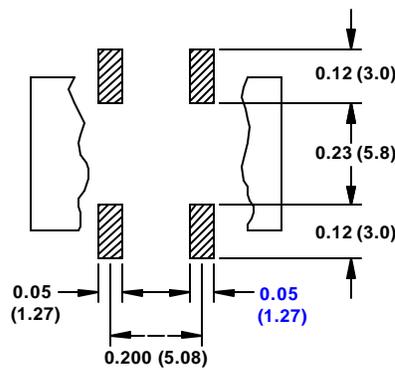
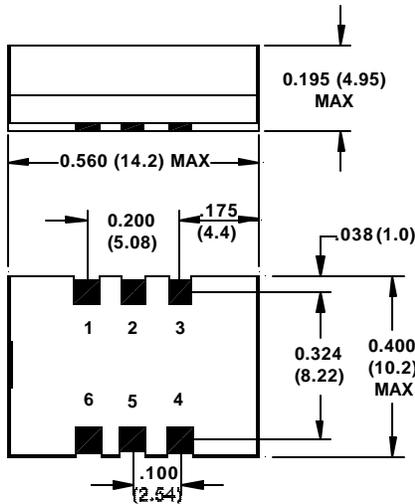


### Recommended Test Circuit for VC3



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

### Package Outlines (Not to Scale):



VC22 RECOMMENDED LAND PATTERN

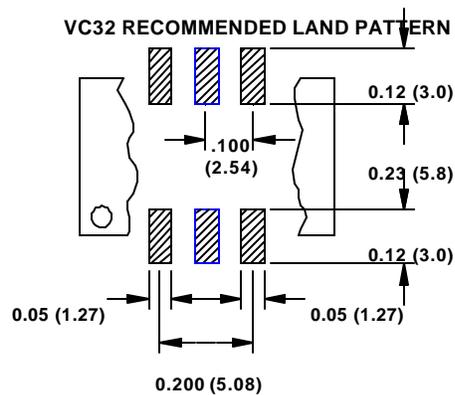
VC22 PIN CONNECTIONS	
PIN	CONNECTION
1	Vcontrol
2	No Connection*
3	GROUND
4	OUTPUT
5	No Connection
6	Vcc

\* 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



VC32 RECOMMENDED LAND PATTERN

July 2000