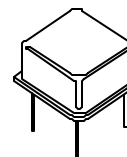
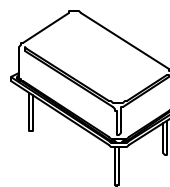




VC1 VCXO SERIES

- THRU-HOLE VCXO IN FULL OR HALF SIZE METAL PACKAGE



STANDARD SPECIFICATIONS:

Frequency Range (Consult factory for specific available frequencies)	VC13 & VC15	VC14 & VC16	
	2.00 MHz – 20.00 MHz	2.00 – 20.00 MHz	20.001 – 60.00 MHz
Frequency Stability over Operating Temperature Range and Supply Voltage	± 25, 50, and 100 PPM available	± 15 PPM only	± 15, 25, 50, and 100 PPM available
Aging at 25°C ± 5°C	± 5 PPM	± 3 PPM first year, then ± 1 PPM per year	
Operating Temperature Range	0 - 70°C is standard, but can be extended to -40 to +85°C.		
Input Voltage	5 ± 5% Volt is standard, but 3.3V ± 5% 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	5.0V Supply: 0.5 V – 4.5V; 3.3V Supply: 0.3 V – 3.0V		
Frequency Deviation (Pullability) over the Control Voltage Range	± 25, 50, 100, 150, and 200 PPM available. Please consult factory for ± 300 PPM.		
Linearity	± 10% is standard. Please consult factory for ± 5%.		
Packaging	VC13, 14: 20 parts per tube, VC15, 16: 33 parts per tube		

PART NUMBERING GUIDE:

- The Pletronics part number for a VC1 VCXO series consists of the following 6 elements:

1. Model Number (Voltage)

VC1 = 5V
3VC1 = 3.3V

2. Package:

VC13H = Full Size Thru-Hole, 5.08 mm High
VC14H = Full Size Thru-Hole, 8.00 mm High
VC15H = Half Size Thru-Hole, 6.00 mm High
VC16H = Half Size Thru-Hole, 7.50 mm High

3. Frequency Stability:

VC14H15: ±15 PPM (Not available on VC13 or VC15)

VC14H25: ±25 PPM

VC14H50: ±50 PPM

VC14H100: ±100 PPM

} Not available for 2.00 MHz – 20.00 MHz on VC14 or VC16;
Use VC13 or VC15 for 2.00 MHz – 20.00 MHz

4. Operating Temperature Range:

VC14H100A: 0 to +50°C VC14H100B: 0 to +70°C

VC14H100C: -10 to +70°C

VC14H100D: -20 to +75°C

VC14H100E: -30 to +75°C

VC14H100F: -40 to +85°C

5. Frequency Deviation over Control Voltage Range:

VC14H100AT: ±25 PPM

VC14H100AV: ±50 PPM

VC14H100AW: ±100 PPM

VC14H100AX: ±150 PPM

VC14H100AY: ±200 PPM

VC14H100AZ: ±300 PPM

6. Frequency of Operation in MHz

EXAMPLE: VC14H100AW-60.000 MHz, VC15H15DV-10.000 MHz, 3VC13H50EX-10.000 MHz

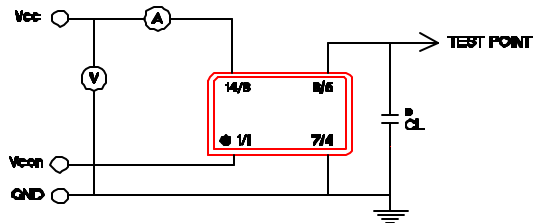
(continued)

VC1 VCXO SERIES

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

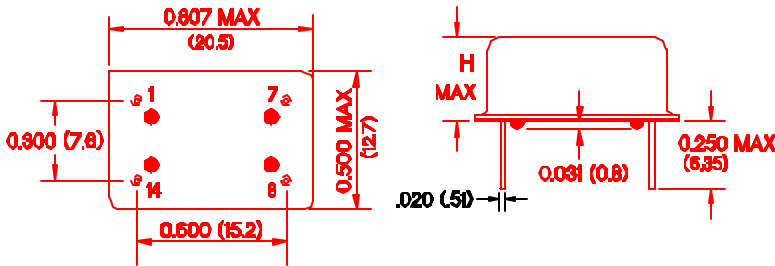
Freq. Range (MHz)	Icc (mA)		Tr & Tf (nS)	
	Typ	Max	Typ	Max
2.000 – 20.000	10	15	3.5	5.0
20.001– 30.000	20	25	3.0	4.5
30.001– 50.000	25	30	3.0	4.0
50.001– 60.000	30	35	2.5	3.5

Recommended Test Circuit



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

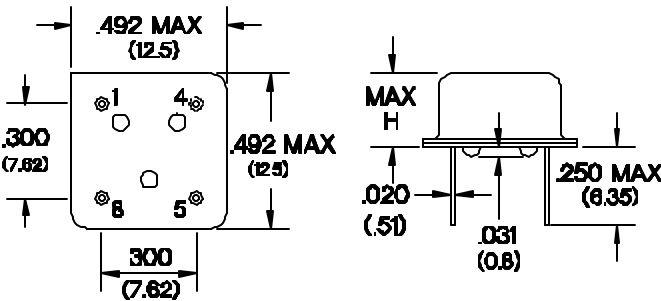
Package Outlines (Not to Scale):



H (maximum height)	
VC13	.200 (5.08)
VC14	.315 (8.0)

VC13 & VC14 PIN CONNECTIONS	
PIN	CONNECTION
1	Vcontrol
7	GROUND & CASE
8	OUTPUT
14	Vcc

INCHES (MILLIMETERS)



H (maximum height)	
VC15	.236 (6.0)
VC16	.295 (7.5)

VC15 & VC16 PIN CONNECTIONS	
PIN	CONNECTION
1	Vcontrol
4	GROUND & CASE
5	OUTPUT
8	Vcc

January 2000