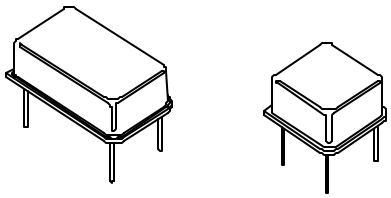
Pletronics, Inc.
19013 36th Ave. West • Suite H • Lynnwood, WA 98036, USA

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

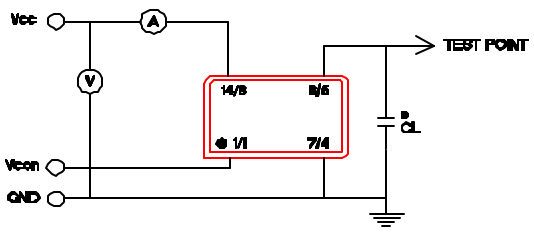
(continued)

VC1 VCXO SERIES

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

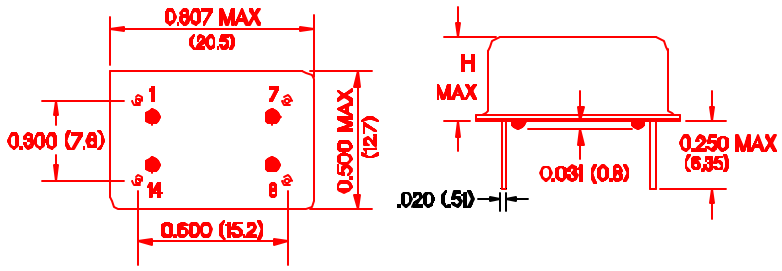
Freq. Range (MHz)	Icc (mA)		Tr & Tf (nS)	
	Typ	Max	Typ	Max
2.000 –20.000	10	15	3.5	5.0
20.001– 30.000	20	25	3.0	4.5
30.001– 50.000	25	30	3.0	4.0
50.001– 60.000	30	35	2.5	3.5

Recommended Test Circuit



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

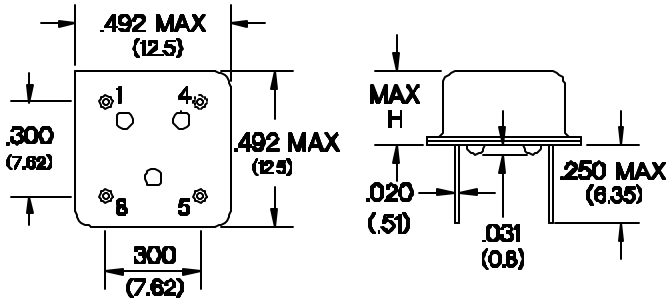
Package Outlines (Not to Scale):



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

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