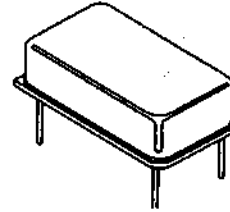




# P1100-HC

THRU-HOLE OSCILLATORS IN METAL PACKAGE  
14-PIN (FULL SIZE) WITHOUT TRI-STATE OUTPUT



## STANDARD SPECIFICATIONS:

Frequency Range	250 kHz - 125.000 MHz
Frequency Stability over Operating Temperature Range	± 100 PPM is standard, but up to ± 25 PPM available.
Operating Temperature Range	0 - 70 °C is standard, but can be extended to -40 to +85°C.
Input Voltage (Vcc)	5 Volt ± 10% is standard, but 3.3 Volt ± 10% available.
Input Current (Icc)	Depends on frequency and output load. See next page.
Symmetry (Duty Cycle) (See next page for definition.)	40/60 - 60/40% is standard, but 45/55% symmetry at 50% of Vcc (CMOS) or at Vcc=1.4V (TTL) is available.
Rise and Fall Time (Tr & Tf) between 20% and 80% of Vcc	Depends on frequency and output load. See next page.
Logic "1" & Logic "0" (See next page.)	TTL: 2.4V MIN.; 0.4V MAX. CMOS: 90% of Vcc MIN.; 10% of Vcc MAX.
Output Load	CMOS: drive up to 50 pF load; TTL: up to 10 TTL loads +15 pF

## PART NUMBERING GUIDE:

■ The Pletronics part number for a P1100-HC oscillator consists of the following 3 elements:

**1. Overall Frequency Stability over Operating Temperature Range:**

- P1100-HC: ± 100 PPM;
- P1145-HC: ± 50 PPM;
- P1144-HC: ± 25 PPM

**2. Optional Alphabet Designator for Special Requirement:**

- P1100-HC: standard specifications;
- P1100-HCE: operating temperature range of -40 to +85°C;
- P1100-HCP: 45/55% symmetry at Vcc=1.4V (TTL);
- P1100-HCS: 45/55% symmetry at 50% of Vcc (CMOS).;
- P1100-HCV: operates at Vcc = 3.3V  
(There are other alphabet designators not listed here.)

**3. Frequency of Operation in kHz or MHz**

EXAMPLES: P1100-HCV-10.000 MHz; P1145-HCE-10.000 MHz.

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

(continued)

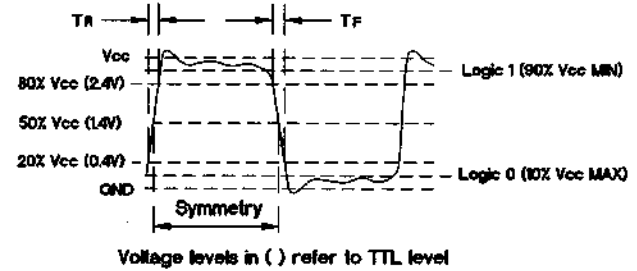
# P1100-HC

THRU-HOLE OSCILLATORS IN METAL PACKAGE  
14-PIN (FULL SIZE) WITHOUT TRI-STATE OUTPUT

## Input Current (I<sub>CC</sub>) and Rise and Fall time with 20pF Load

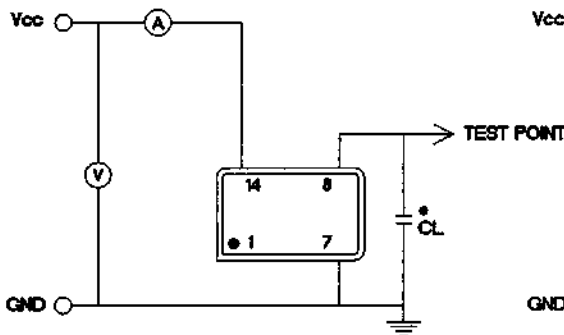
Freq. Range (MHz)	I <sub>CC</sub> (mA) Maximum	Tr & Tf (nS) Maximum
0.250 -39.999	25	7
40.000 -71.999	35	5
72.000 -125.000	50	3

## Waveform

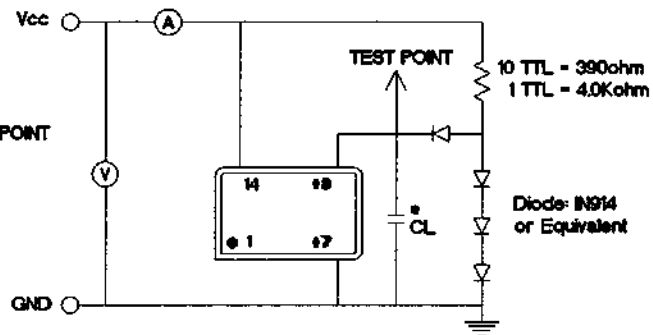


## Recommended Test Circuit

### CMOS LOAD

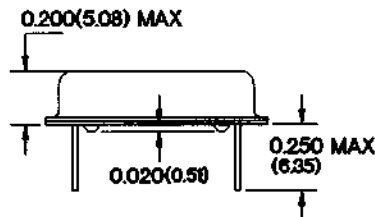
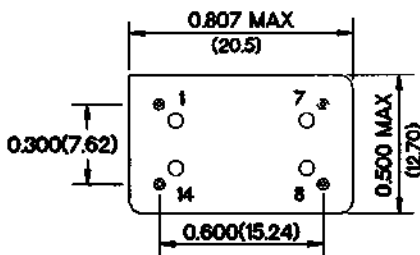


### TTL LOAD



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

## PACKAGE OUTLINE:



INCHES (MILLIMETERS)

PIN CONNECTIONS	
PIN	CONNECTION
1	N.C
7	GROUND
8	OUTPUT
14	Vcc

April 1, 1997