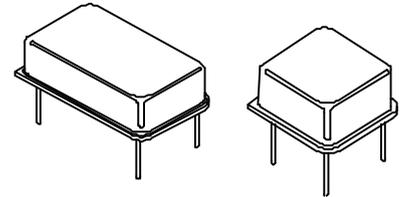




HIGH FREQUENCY THRU-HOLE SERIES

- CMOS COMPATIBLE WITH TRI-STATE OUTPUT
- THRU-HOLE OSCILLATORS IN METAL PACKAGE AVAILABLE IN 14-PIN/ FULL SIZE (**P1100-3SD**) OR 8-PIN/ HALF SIZE (**SQ3300D**)
- 3RD OVERTONE CRYSTAL USED
- LOW JITTER (SEE TABLE NEXT PAGE)



STANDARD SPECIFICATIONS:

Frequency Range	70.000 MHz – 160.000 MHz (Consult factory for specific available frequencies)
Frequency Stability over Operating Temperature Range	± 50 PPM is standard, but ± 25 PPM is also 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% also available.
Symmetry (Duty Cycle) (See next page for definition.)	40/60 - 60/40% is standard, but 45/55% symmetry at 50% of Vcc is also available.
Input Current (Icc) & Rise and Fall Time (Tr & Tf) & Jitter	Depends on frequency and output load. See next page.
Logic "1" & Logic "0" (See next page)	90% of Vcc MIN.; 10% of Vcc MAX.
Tri-state Output	Normal output when pin #1 is open (no connection); Normal output when pin #1 is at logic "1"; High-impedance output when pin #1 is at logic "0".
Output Load	Can drive up to 50pF load
Packaging (mounted on ESD pads)	(P11) 50 parts per pad, (SQ) 70 parts per pad, 10 pads per bundle

PART NUMBERING GUIDE:

- The Pletronics part number for this third overtone oscillator series consists of the following 4 elements:

1. Model Number Series:

P1145-3SD: 14-Pin (Full Size) Thru-Hole;
SQ3345D: 8-Pin (Half Size) Thru-Hole

2. Overall Frequency Stability over Operating Temperature Range:

P1145-3SD: ± 50 PPM;
P1144-3SD: ± 25 PPM

3. Optional Alphabet Designator for Special Requirement:

P1145-3SD: standard specifications;
P1145-3SDE: operating temperature range of -40 to +85°C;
P1145-3SDS: 45/55% symmetry at 50% of Vcc (CMOS);
P1145-3SDV: operates at Vcc = 3.3V
(There are other alphabet designators not listed here.)

4. Frequency of Operation in MHz

EXAMPLES: P1145-3SDV-70.000MHz; SQ3344DE-70.000MHz, SQ3345DS-70.000MHz

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

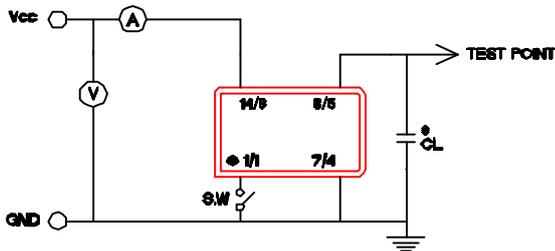
(continued)

HIGH FREQUENCY THRU-HOLE SERIES

Input Current (I_{cc}), Rise and Fall time with 15pF Load & Jitter

Frequency Range (MHz)	I _{cc} (mA)		Tr & Tf (nS)		Period Jitter RMS Values (pS) * contact factory	
	Typical	Maximum	Typical	Maximum	Typical	Maximum
70.000 – 79.999	40.0	45.0	2.0	3.0	*	*
80.000 – 110.000	75.0	80.0	0.5	1.0	2.6	2.9
110.001 – 119.999	80.0	90.0	0.5	1.0	*	*
120.000 – 160.000	90.0	95.0	0.5	1.0	1.8	1.9

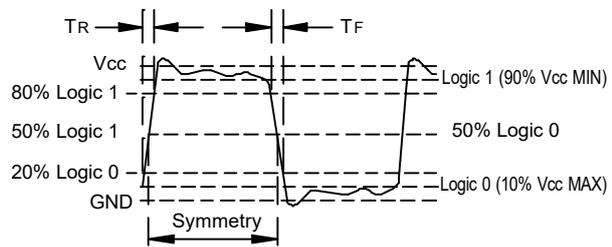
Recommended Test Circuit with CMOS Load



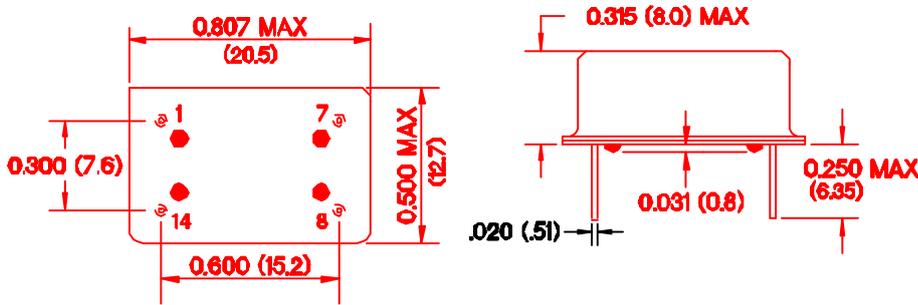
P1100-3SD/SQ3300D

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

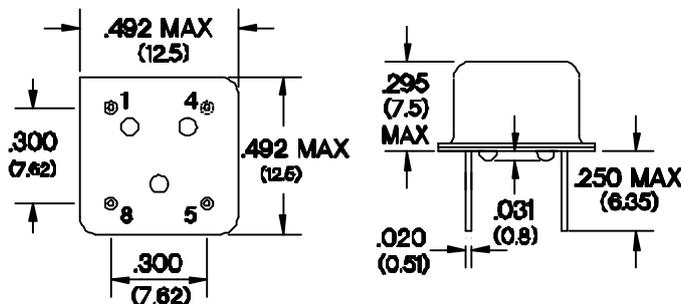
Waveform



Package Outlines (NOT TO SCALE):



P1100-3SD PIN CONNECTIONS	
PIN	CONNECTION
1	ENABLE/DISABLE INPUT
7	GROUND
8	OUTPUT
14	V _{cc}



SQ3300D PIN CONNECTIONS	
PIN	CONNECTION
1	ENABLE/DISABLE INPUT
4	GROUND
5	OUTPUT
8	V _{cc}

INCHES (MILLIMETERS)

October 2000