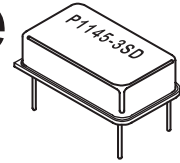
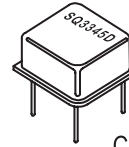




High Frequency Thru-Hole

- CMOS with Enable/ Disable, 3rd Overtone Crystal Used
- Low Jitter
- Full Size or Half Size Metal Thru-Hole Clock Oscillator



70.00 MHz – 170.00 MHz

Consult factory for higher frequencies

Standard Specifications

Overall Frequency Stability	± 50 PPM is standard, but ± 25 PPM and ± 20 PPM over Operating Temp. Range also available
Operating Temperature Range	0 to +70°C is standard, but can be extended to -40 to +85°C for certain frequencies
Supply Voltage (Vcc)	5.0 volts, 3.3 volts, and 2.5 volts available, consult factory for 1.8 volts
Symmetry (Duty Cycle)	40/60 to 60/40% is standard, but 45/55% at 50% of Vcc is also available (see Waveform 1)
Logic Levels	Logic "1" 90% of Vcc MIN; Logic "0" 10% of Vcc MAX
Jitter	1 pS RMS maximum, from 12 kHz to 20 MHz from carrier
Output Load	Standard load is 15pF (typ. 1 ASIC) maximum, see Test Circuit 3 (consult factory for heavier loads)
Enable/Disable Option (E/D)	Output enabled when Pin #1 is open or at Logic "1"; Output disabled when Pin #1 is at Logic "0".

Frequency Range (MHz)	Max. Supply Current Icc (mA) w/ 15pF load		Max. Rise and Fall Time Tr & Tf (nS) w/ 15pF load	
	2.5V, 3.3V	5.0V	2.5V	3.3V, 5.0V
70.000 – 79.999	30	45	3.5	3.0
80.000 – 110.000	40	80	2.5	1.5
110.001 – 119.999	50	90	2.5	1.0
120.000 – 170.000	60	95	1.5	1.0

Part Numbering Guide

Packaging
Tube or
on Pads

Portions of the part number that appear after the frequency may not be marked on part (C of C provided)

SQ33 45 D V -- 70.0M - 30 - XXX (Internal Code or blank)
P11 45 - 3SD V - 70.0M - 30 - XXX

Model

P11xx-3SD (Full Size)
SQ33xxD (Half Size)

Non-Std Output Load

Blank = 15 pF max, 30 = 30 pF max

Frequency in MHz

Special Specifications (choose all that apply)

Blank: Std Specs (5.0V ± 10%, 0 to +70°C, 40/60% Symmetry)

E: Extended Operating Temperature Range (-40 to +85°C)

S: 45/55% Symmetry at 50% of Vcc

V: Supply Voltage of 3.3 volts ± 10%

W: Supply Voltage of 2.5 volts ± 5%

X: Supply Voltage of 1.8 volts ± 5% (Consult factory)

Frequency Stability

45 = ± 50 PPM

44 = ± 25 PPM

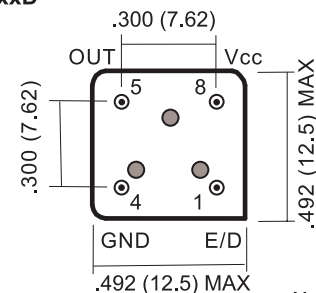
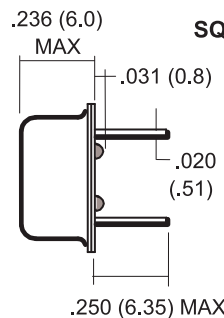
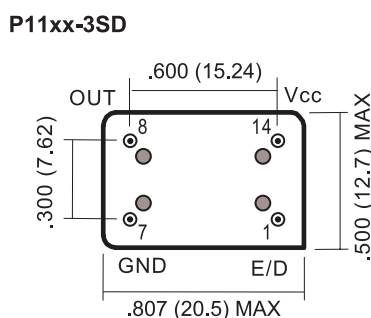
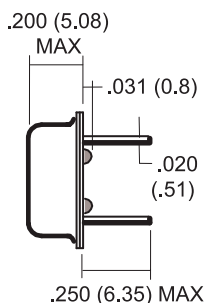
20 = ± 20 PPM

Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned. Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

Mechanical: inches (mm)

not to scale

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.



Mar 2004