**Pletronics, Inc.**

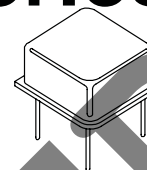ple PLETRONICS

19013 36th Ave. W, Suite H ▪ Lynnwood, WA 98036 USA

*Manufacturer of High Quality Frequency Control Products*

# SQ3345, SQ2245 CMOS Series

- SQ3345: CMOS with Enable/ Disable, SQ2245 without Enable/Disable
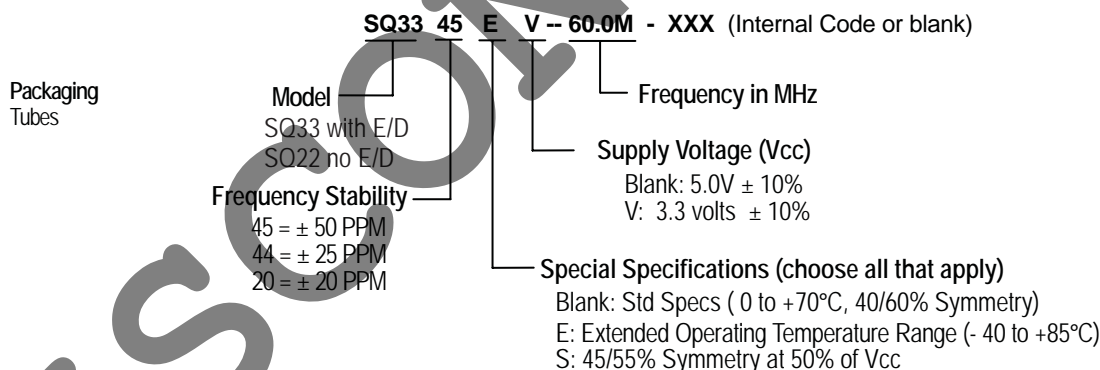- Half Size (8 Pin DIP) Thru-Hole Metal Clock Oscillator

**650 kHz – 69.999 MHz**

## Standard Specifications

| | |
|---|---|
| **Overall Frequency Stability** | ± 50 PPM, ± 25 PPM, ± 20 PPM over Operating Temperature Range |
| **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 and 3.3 volts available |
| **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 |
| **Output Load** | Standard load is 15 pF (typ. 1 ASIC) maximum, see Test Circuit 3 (consult factory for **heavier** loads) |
| **SQ33: 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 | | Rise and Fall Time Tr & Tf (nS) w/ 15pF load | |
|---|---|---|---|---|
| | 3.3V | 5.0V | Typical | Maximum |
| 0.650 – 10.000 | 7 | 10 | 3.0 | 4.0 |
| 10.001 – 25.999 | 10 | 20 | 2.5 | 3.5 |
| 26.000 – 34.999 | 15 | 25 | 2.5 | 3.5 |
| 35.000 – 50.000 | 20 | 30 | 2.5 | 3.5 |
| 50.001 – 69.999 | 25 | 35 | 2.5 | 3.5 |

## Part Numbering Guide

**SQ33  45  E  V -- 60.0M  -  XXX**  (Internal Code or blank)

Packaging
Tubes

Model
SQ33 with E/D
SQ22 no E/D

Frequency Stability
45 = ± 50 PPM
44 = ± 25 PPM
20 = ± 20 PPM

Frequency in MHz

Supply Voltage (Vcc)
Blank: 5.0V ± 10%
V:  3.3 volts  ± 10%

Special Specifications (choose all that apply)
Blank: Std Specs ( 0 to +70°C, 40/60% Symmetry)
E: Extended Operating Temperature Range (- 40 to +85°C)
S: 45/55% Symmetry at 50% of Vcc
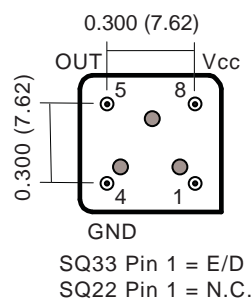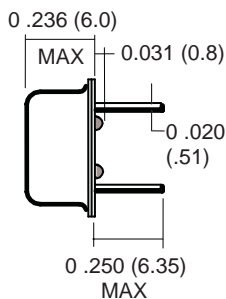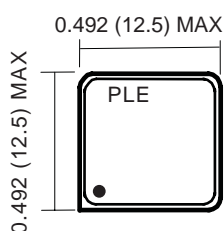
Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned.
Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

## 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.

0.492 (12.5) MAX
0.492 (12.5) MAX
PLE

0.236 (6.0)
MAX
0.031 (0.8)
0.020 (.51)
0.250 (6.35) MAX

0.300 (7.62)
OUT    Vcc
5    8
4    1
GND
0.300 (7.62)

SQ33 Pin 1 = E/D
SQ22 Pin 1 = N.C.

Nov 2006