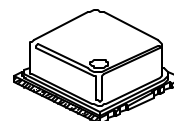
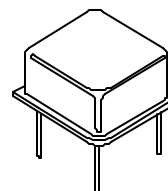




SQ3300 SERIES

- CMOS COMPATIBLE WITH TRI -STATE OUTPUT
- LOWER RINGING NOISE OPTION AVAILABLE TO REDUCE EMI
- 8-PIN (HALF SIZE) THRU-HOLE OSCILLATORS IN METAL PACKAGE
- AVAILABLE IN SURFACE MOUNT CONFIGURATION



STANDARD SPECIFICATIONS:

| | |
|---|--|
| Frequency Range | 650 kHz – 69.999 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. |
| Operable Supply Voltage (Vcc) | 5 Volt $\pm 10\%$ is standard, but 3.3V $\pm 10\%$ is 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 & 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 50 pF load |
| Ringing Noise | Depends on frequency and output load. See EMI application note. |
| Packaging | 33 parts per tube, SMD: Tape and Reel TBD |

PART NUMBERING GUIDE:

- The Pletronics part number for an SQ3300 series oscillator consists of the following 4 elements:

1. Overall Frequency Stability over Operating Temperature Range:

SQ3345: ± 50 PPM;
SQ3344: ± 25 PPM

2. Optional Alphabet Designator for Special Requirement:

SQ3345: standard specifications;
SQ3345E: operating temperature range of -40 to +85°C;
SQ3345S: 45/55% symmetry at 50% of Vcc;
SQ3345V: operates at Vcc = 3.3V;
SQ3345N: lower ringing noise
(There are other alphabet designators not listed here.)

3. Frequency of Operation in kHz or MHz

4. Optional Surface Mount Configuration – SMD

EXAMPLES: SQ3345V-50.000 MHz; SQ3345E-10.000 MHz, SQ3344N-10.000 MHz-SMD

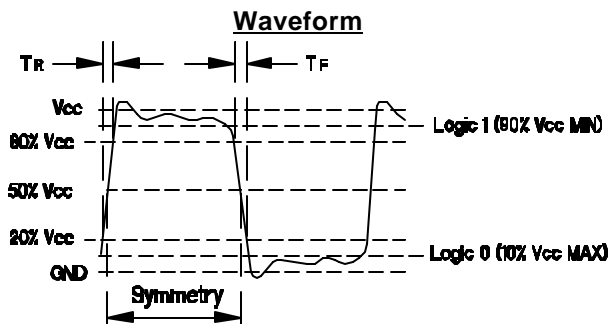
- When customer's requirements are non-standard, a special engineering part number will be assigned.

(continued)

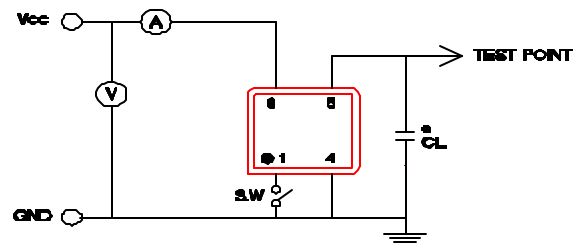
SQ3300 SERIES

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 *contact factory | |
|-----------------------|----------------------|---------|--------------|---------|--|---------|
| | Typical | Maximum | Typical | Maximum | Typical | Maximum |
| 0.650 – 10.000 | 6.5 | 10.0 | 3.0 | 4.0 | * | * |
| 10.0001 – 25.999 | 15.0 | 20.0 | 2.5 | 3.5 | * | * |
| 26.000 – 34.999 | 18.0 | 25.0 | 2.5 | 3.5 | * | * |
| 35.000 – 50.000 | 25.0 | 30.0 | 2.5 | 3.5 | * | * |
| 50.001 – 69.999 | 32.0 | 35.0 | 2.5 | 3.5 | * | * |

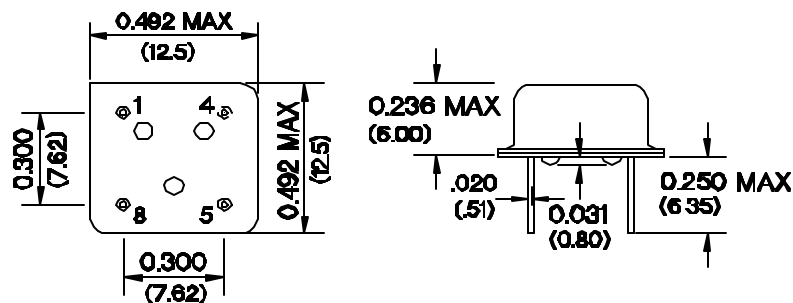


Recommended Test Circuit with CMOS Load



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

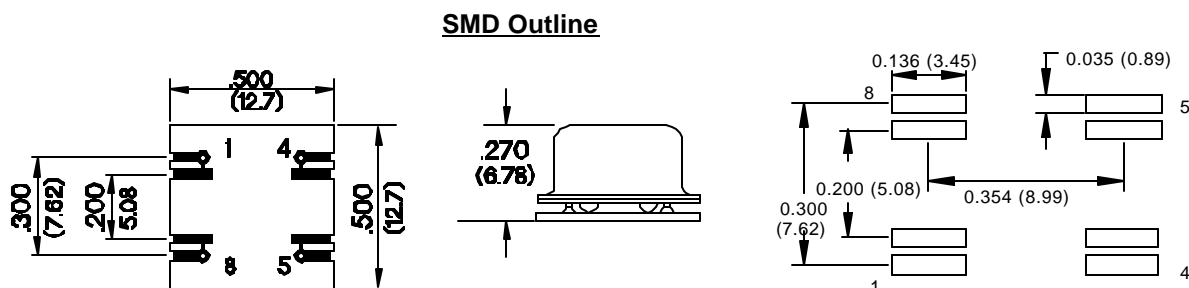
Thru-Hole Package Outline (NOT TO SCALE):



INCHES (MILLIMETERS)

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

Recommended Land Pattern



October 2000