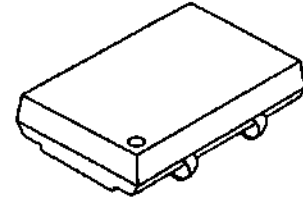




## SM1100J

SURFACE MOUNT OSCILLATORS IN PLASTIC PACKAGE



### STANDARD SPECIFICATIONS:

Frequency Range	1.500 MHz - 125.000 MHz
Frequency Stability over Operating Temperature Range	± 100 PPM is standard, but ± 50 PPM available for certain frequencies.
Operating Temperature Range	0 - 70°C is standard, but can be extended to -40 to +85°C for certain frequencies.
Input Voltage (Vcc)	5 Volt ± 10% is standard, but 3.3 Volt ± 10% available for certain frequencies.
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) 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.
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	CMOS: can drive up to 50 pF load. TTL option available for certain frequency ranges.
Assembly Temperature Range	235°C for 30 seconds, or 260°C for 10 seconds max.

### PART NUMBERING GUIDE:

■ The Pletronics part number for an SM1100J oscillator consists of the following 4 elements:

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

SM1100J: ± 100 PPM;

SM1145J: ± 50 PPM.

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

SM1100JY: standard specifications;

SM1100JE: operating temperature range of -40 to +85°C;

SM1100JP: 45/55% symmetry at Vcc=1.4V (TTL);

SM1100JS: 45/55% symmetry at 50% of Vcc (CMOS).;

SM1100JV: operates at Vcc = 3.3V

(There are other alphabet designators not listed here.)

**3. Packaging Designator:**

K: to be shipped in tubes (sticks);

L: to be shipped on tape & reel.

**4. Frequency of Operation in MHz**

EXAMPLES: SM1145JP-L-10.000 MHz; SM1100JE-K-10.000 MHz.

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

(continued)

Telephone: (425) 776-1880, Fax: (425) 776-2760, e-mail: ple-sales@pletronics.com

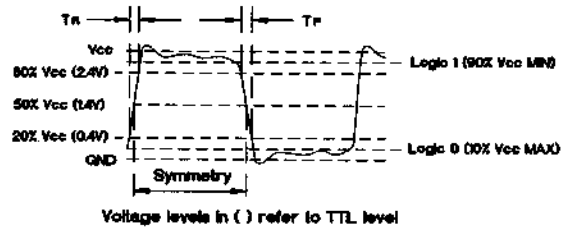
# SM1100J

SURFACE MOUNT OSCILLATORS IN PLASTIC PACKAGE

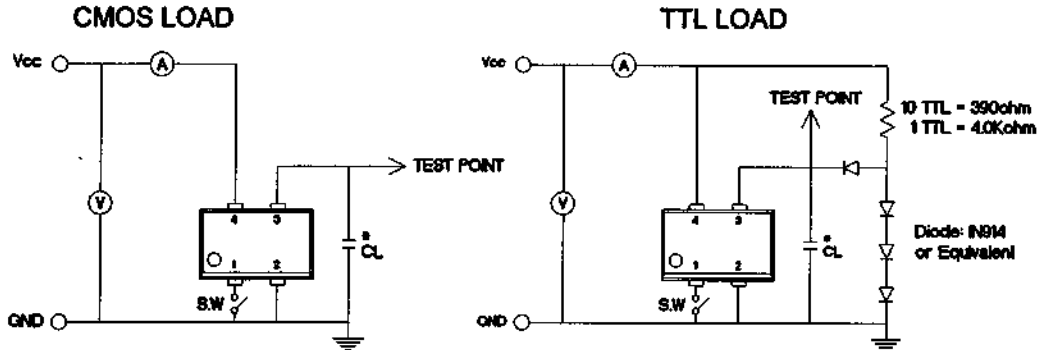
**Input Current (I<sub>cc</sub>) and Rise and Fall time with 20pF Load**

**Waveform**

Freq. Range (MHz)	I <sub>cc</sub> (mA) Maximum	Tr & Tf (nS) Maximum
1.500 - 39.999	25	7
40.000 - 71.999	35	5
72.000 - 125.000	60	5

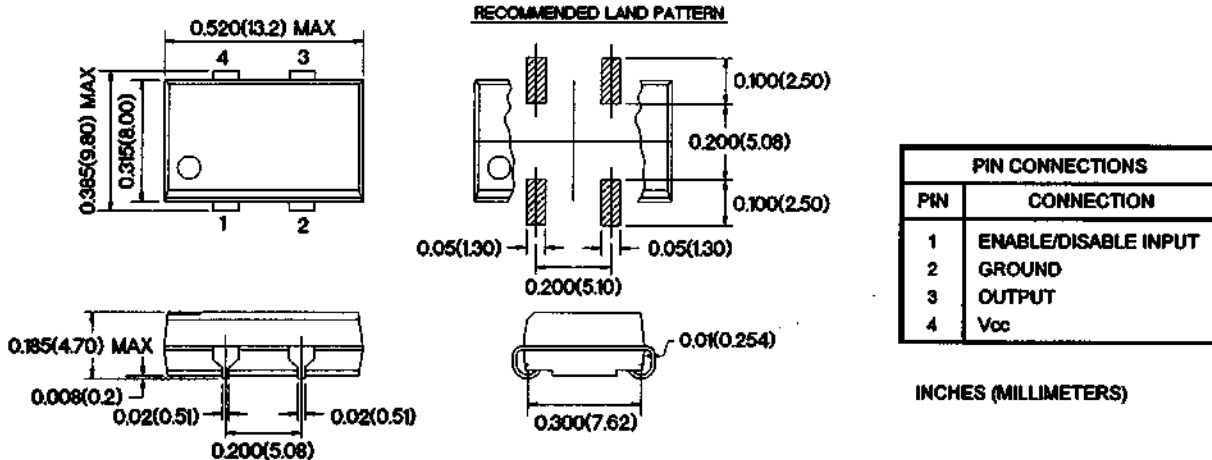


**Recommended Test Circuit**

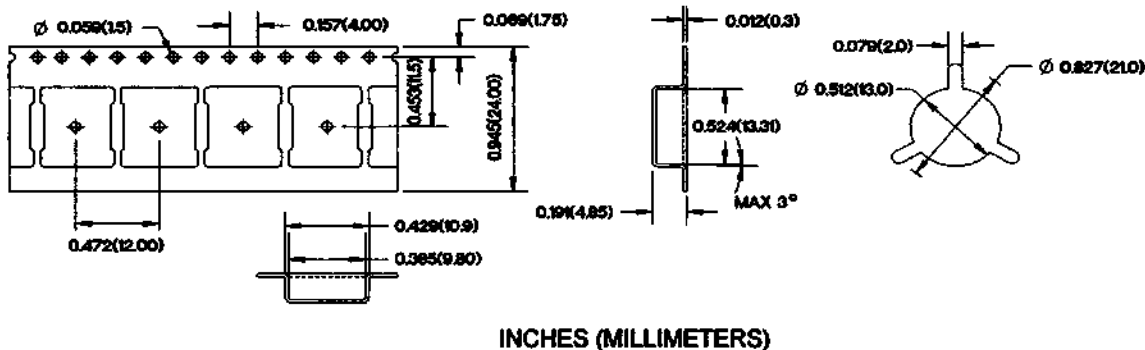


\*CL(Capacitive Load): Includes the input capacitance of oscilloscope.

**PACKAGE OUTLINE:**



**TAPE & REEL DIMENSIONS:**



April 1, 1997