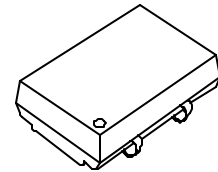




SM1100JD SERIES



- CMOS COMPATIBLE WITH TRI –STATE OUTPUT
- LEADED SURFACE MOUNT OSCILLATORS IN PLASTIC PACKAGE
- 3RD OVERTONE MODE CRYSTAL USED
- LOW JITTER (SEE TABLE NEXT PAGE)
- LAND PATTERN COMPATIBLE TO OUR ENTIRE SM1100X SERIES AND EPSON SG615

STANDARD SPECIFICATIONS:

Frequency Range	70.000 MHz - 125.000 MHz (Consult factory for specific available frequencies and for frequencies > 125MHz)
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 for certain frequencies.
Input Voltage (Vcc)	5 Volt ± 10% is standard, but 3.3 Volt ± 10% also available for certain frequencies.
Symmetry (Duty Cycle) (See waveform 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.
Output Load	Can drive up to 15pF
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".
Packaging (see page R1, Figure 2)	24 mm tape, 330 mm reel: 1000 parts per reel or 25 parts per tube

PART NUMBERING GUIDE:

- The Pletronics part number for an SM1100JD series oscillator consists of the following 3 elements:

1. Overall Frequency Stability over Operating Temperature Range:

SM1145JD: ± 50 PPM
SM1144JD: ± 25 PPM

2. Optional Alphabet Designator for Special Requirement:

SM1145JDY: standard specifications;
SM1145JDE: operating temperature range of -40 to +85°C;
SM1145JDS: 45/55% symmetry at 50% of Vcc;
SM1145JDV: operates at Vcc = 3.3V
(There are other alphabet designators not listed here.)

3. Frequency of Operation in MHz

EXAMPLES: SM1145JDS-106.250 MHz; SM1145JDV-125.000 MHz; SM1144JDY-100.000 MHz

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

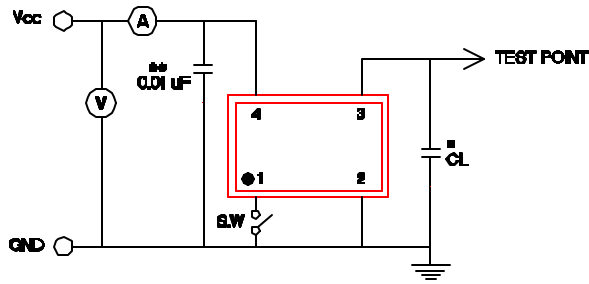
(continued)

SM1100JD SERIES

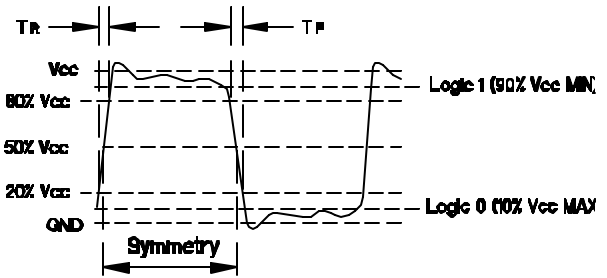
Input Current (I_{cc}), Rise and Fall time with 15pF Load & Jitter

Frequency Range (MHz)	I _{cc} (mA)		Tr & Tf (nS)		Period Jitter RMS Values *contact factory	
	Typical	Maximum	Typical	Maximum	Typical	Maximum
70.000 – 79.999	40.0	45.0	2.0	3.0	*	*
80.000 – 110.000	75.0	80.0	2.0	3.0	*	*
110.001 – 119.999	80.0	90.0	1.5	2.0	*	*
120.000 – 125.000	90.0	95.0	1.5	2.0	*	*

Recommended Test Circuit with CMOS Load



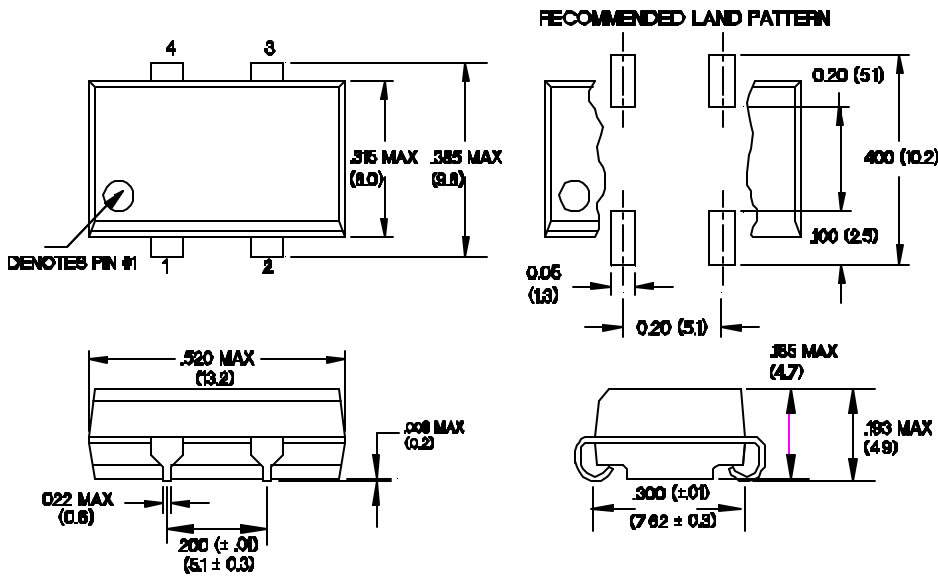
Waveform



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

** 0.01μF external by-pass filter is recommended.

Package Outline (NOT TO SCALE):



PIN CONNECTIONS	
PIN	CONNECTION
1	ENABLE/DISABLE INPUT
2	GROUND
3	OUTPUT
4	V _{cc}

INCHES (MILLIMETERS)

October 2000