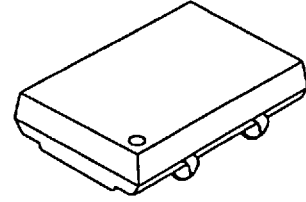




SM1100T

SURFACE MOUNT OSCILLATORS IN PLASTIC PACKAGE



STANDARD SPECIFICATIONS:

Frequency Range	1.000 MHz - 70.000 MHz
Frequency Stability over Operating Temperature Range	± 100 PPM is standard, but up to ± 50 PPM 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% 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.
Output Load	CMOS is standard and can drive 50 pF Max. TTL-Compatible option may be available for certain frequency ranges.
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".
Assembly Temperature Range	235 °C for 30 seconds, or 260 °C for 10 seconds max.

PART NUMBERING GUIDE:

■ The Pletronics part number for an SM1100T oscillator consists of the following 3 elements:

1. Overall Frequency Stability over Operating Temperature Range:

SM1100T: ± 100 PPM;
SM1145T: ± 50 PPM.

2. Optional Alphabet Designator for Special Requirement:

SM1100TY: standard specifications;
SM1100TE: operating temperature range of -40 to +85°C;
SM1100TP: 45/55% symmetry at Vcc=1.4V (TTL);
SM1100TS: 45/55% symmetry at 50% of Vcc (CMOS);
SM1100TV: operates at Vcc = 3.3 V.

(There are other alphabet designators not listed here.)

3. Frequency of Operation in MHz

EXAMPLES: SM1145TP-L-10.000 MHz; SM1100TE-K-10.000 MHz.

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

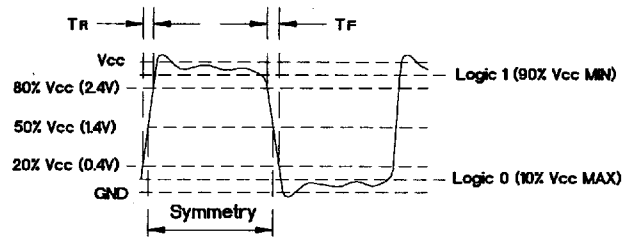
(continued)

SM1100T SURFACE MOUNT OSCILLATORS IN PLASTIC PACKAGE

Input Current And Rise & Fall Time with 50 pF CMOS Load:

Freq. Range (MHz)	I _{cc} (Ma) Maximum	Tr & Tf (Ns) Maximum
1.000-27.000	15	8
27.001-40.000	30	8
40.001-50.000	30	6
50.001-70.000	45	6

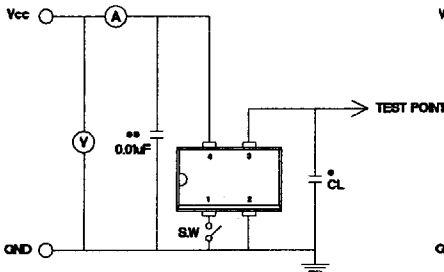
Waveform



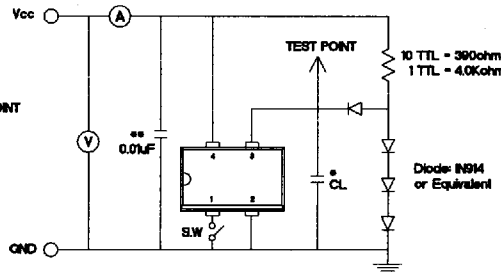
Voltage levels in () refer to TTL level

Recommended Test Circuit

CMOS LOAD

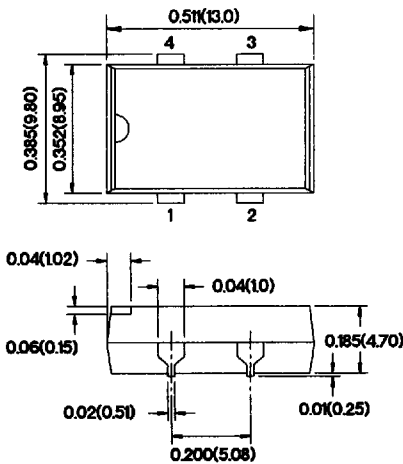


TTL LOAD

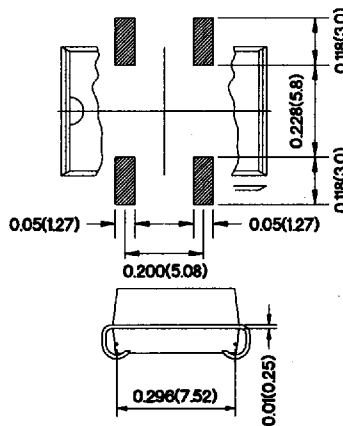


- * CL(Capacitive Load): Includes the input capacitance of oscilloscope.
- ** 0.01µF external by-pass filter is recommended.

PACKAGE OUTLINE:



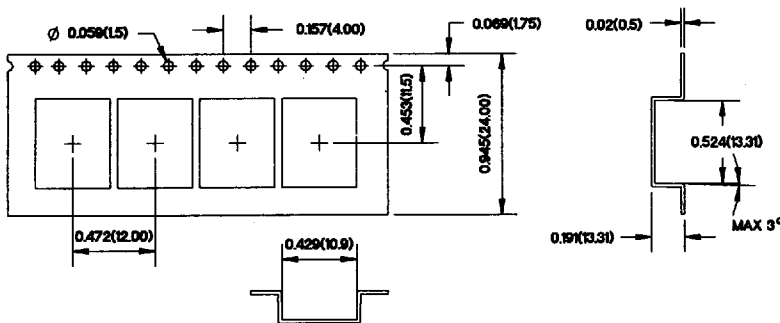
RECOMMENDED LAND PATTERN



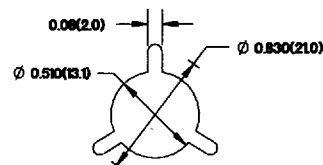
PIN CONNECTIONS	
PIN	CONNECTION
1	ENABLE/DISABLE INPUT
2	GROUND
3	OUTPUT
4	V _{cc}

INCHES (MILLIMETERS)

TAPE & REEL DIMENSIONS:



INCHES (MILLIMETERS)



REEL Size- 13" (330mm) diameter

April 1, 1997