

hybrid clock oscillators

T-50-23

Standard Product Line:

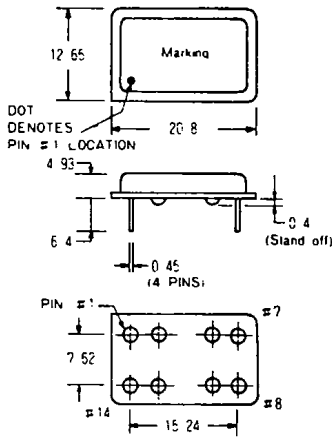
MODEL	STABILITY	REMARKS
STR1100G*	± .01%	TTL Clock
STR1114G	± .05%	TTL Clock
STR1115G	± .10%	TTL Clock
STR1116G	± 1.0%	Economy Clock
STR1142G	± .001%	Precision Clock
STR1144G	± .0025%	Precision Clock
STR1145G	± .005%	Precision Clock

*G means Pin #7 is grounded to case.

SPECIFICATIONS

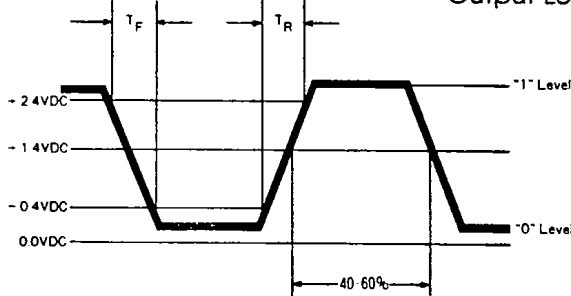
Frequency Range	..... 200KHz to 70MHz
Frequency Stability	..... ±0.01% over operation temperatures and Voltage
Operating Temperature Range	..... 0°C to 70°C
Storage Temperature Range	..... -55°C to 125°C
Input Voltage	..... +5VDC±0.5V

Package Dimension:

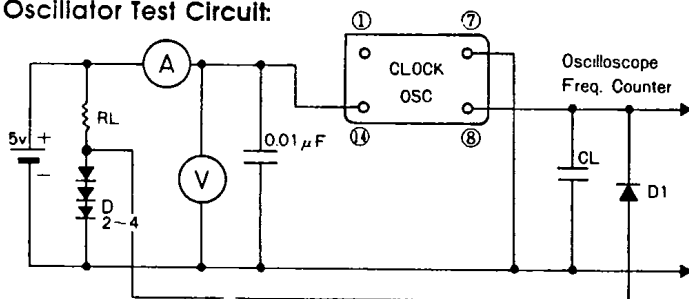


PIN CONNECTION
 #1 NC
 #7 GRD/GND TO CASE
 #8 OUTPUT
 #14 +5VDC
 All dimensions in m/m

STR1100 Series Crystal Clock Oscillator Wave Shape:



CLOCK Oscillator Test Circuit:



D1 ~ D4 SWITCHING DIODE
 CL 15PF
 RL 400Ω at 0.2MHz to 20.0MHz
 280Ω at 20.0MHz to 70MHz

Input Current

Frequency Range	MAX. 25°C
200KHz to 3.200MHz	..... 70mA
3.205MHz to 25.00MHz	..... 30mA
25.000MHz to 70.000MHz	..... 50mA

Shorted 100mA Max.

TTL Output (0-70°C)

Parameter	MAX. 25°C	MAX. OVER TEMP.
Symmetry	..... 60/40% to 40/60% 1.4VDC	90mA
Rise and Fall Times (0.4-2.4V DC Level)	..... 200KHz-8.999MHz	40mA
	..... 9.000MHz-32.000MHz	70mA
	..... 32.005MHz-70.000MHz	

"0" Level +0.4V Max.

"0" Level +0.5V Max.

"1" Level +2.4V Min.

"0" Sink Current 16mA Min.
 (1.6mA/Gate)
 20mA Min.

"1" Source Current -0.4mA Min.
 -0.5mA Min.

Output Load 1 to 10 TTL Gate
 1 to 5 TTL Gate

MAX. OVER TEMP.

200KHz-32.000MHz	15nS Max.
32.005MHz-70.000MHz	10nS Max.
200KHz-70.000MHz	6nS Max.
200KHz-20.000MHz	20.000MHz-70.000MHz
200KHz-20.000MHz	20.000MHz-70.000MHz
20.000MHz-70.000MHz	(4-8.999MHz)
(9-70.0MHz)	

Environment Test

Temperature Cycle .. ±5PPM Max, 0°C to 120°C, 3 cycles, 2 hours max. each, 25±2°C, refer
 Humidity 85% Relative Humidity, 85°C, 250 hours.

Mechanical Test

Gross Leak Test All Units 100% leak tested in deionized H₂O.
 Fine Leak Test Leak rate less than 2 x 10⁻⁸ Atom. cc/sec. of Helium.
 Seal Strength 20 LBS. Max. force perpendicular to Top and Bottom.
 Bend Test Will withstand maximum bend of 90° reference to base for 2 bend.
 Ink Epoxy heat cured.
 Solvent Resistance ... Isopropyl-alcohol, Trichloroethane.