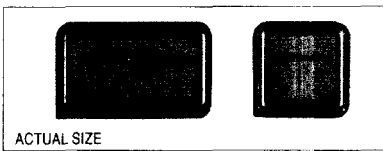
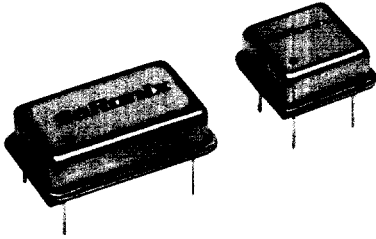


Technical Data

S1100 Series



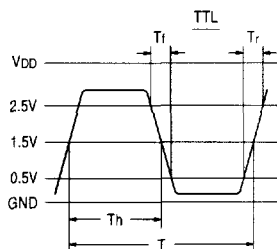
Description

A crystal-controlled oscillator circuit producing a true TTL output at frequencies between 20 MHz and 110 MHz. Available in either a 14-pin or an 8-pin DIP-compatible, industry standard resistance welded all metal package.

Applications & Features

- Cost effective MPU clocking
- TTL output
- True TTL levels for reduced EMI
- Broad frequency range to 110 MHz
- Industry standard, crosses to most major brands

Output Waveform



$$\text{SYMMETRY} = \frac{T_h}{T} \times 100 (\%)$$

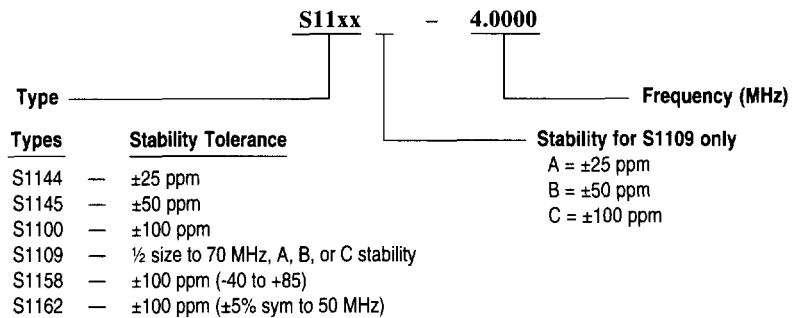
Frequency Range:	20 MHz to 110 MHz (1/2 size: 20 MHz to 70 MHz)	
Frequency Stability:	±25, ±50 or ±100 ppm over all conditions: calibration tolerance, operating temperature range, input voltage range, load change, aging, shock and vibration	
Temperature Range:	Operating: 0 to +70°C Storage: -55 to +125°C	
Supply Voltage:	+5VDC ±10%	
Supply Current:	Max at 25°C	Max over Temperature
20 to 60 MHz:	40mA	45mA
60+ to 110 MHz:	45mA	50mA

Output Drive:	Symmetry: 40/60% max @ 1.5V DC level	
	Rise & Fall Times: 8ns max 20 to 25 MHz	
	6ns max 25+ to 70 MHz	
	4ns max 70+ to 110 MHz	
	Logic 0: +0.5V max	
	Logic 1: +2.5V min	
	Load: 10 TTL Gates 20 to 30 MHz	
	5 TTL Gates 30+ to 80 MHz	
	2 TTL Gates 80+ to 110 MHz	

Mechanical:	Shock: MIL-STD-883, Method 2002, Condition B	
	Solderability: MIL-STD-883, Method 2003	
	Terminal Strength: MIL-STD-202, Method 211, Conditions A and C	
	Vibration: MIL-STD-883, Method 2007, Condition A	
	Solvent Resistance: MIL-STD-202, Method 215	
	Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition A, B or C	

Environmental:	Gross Leak Test: MIL-STD-883, Method 1014, Condition C	
	Fine Leak Test: MIL-STD-883, Method 1014, Condition A2, <5 x 10 ⁻⁸ ATM cc/sec	
	Thermal Shock: MIL-STD-883, Method 1011, Condition A	
	Moisture Resistance: MIL-STD-883, Method 1004	

Part Numbering Guide

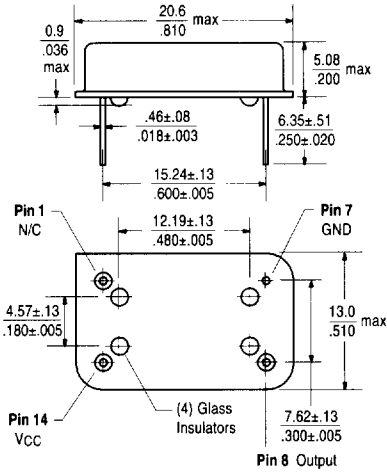


Technical Data

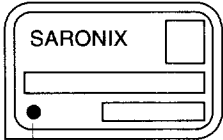
S1100 Series

Package Details

FULL SIZE PACKAGE

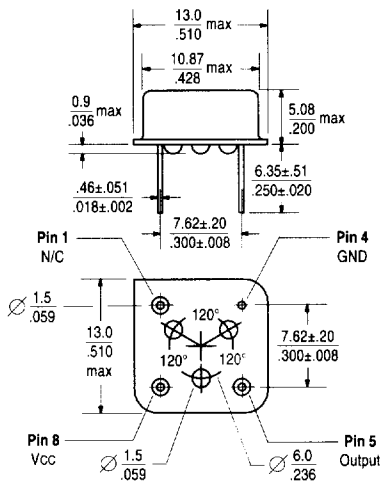


Standard Marking Format
Includes Date Code, Frequency & Model



Denotes Pin 1

HALF SIZE PACKAGE



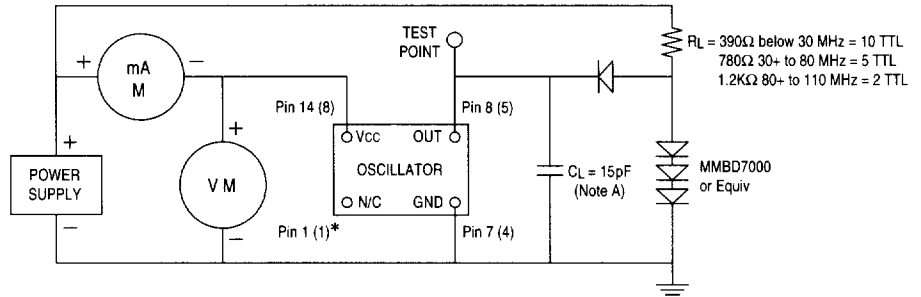
Standard Marking Format
Includes Date Code, Frequency & Model



Denotes Pin 1

Scale: None (Dimensions in $\frac{\text{mm}}{\text{inches}}$)

Test Circuit



NOTE A: C_L includes probe and fixture capacitance
(*) Indicates pin numbers for half-size package

TTL TEST CIRCUIT

All specifications are subject to change without notice.

DS-117 REV C