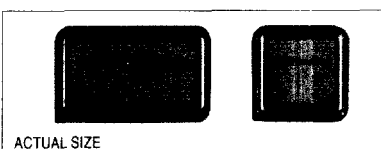
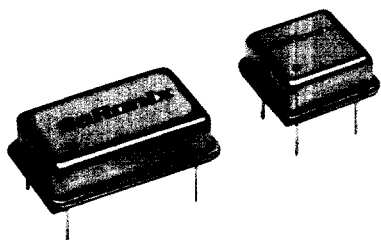


Technical Data

S1100 Series



ACTUAL SIZE

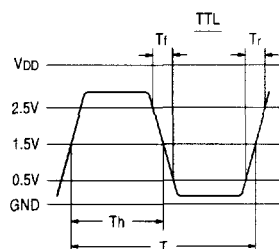
Description

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

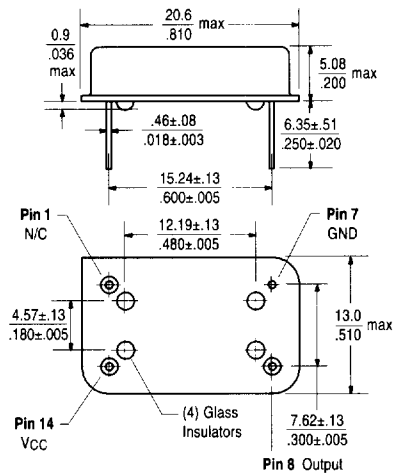
		S11xx	-	4.0000		
					Frequency (MHz)	
Type						
Types	Stability Tolerance				Stability for S1109 only	
S1144	— ±25 ppm				A = ±25 ppm	
S1145	— ±50 ppm				B = ±50 ppm	
S1100	— ±100 ppm				C = ±100 ppm	
S1109	— 1/2 size to 70 MHz, A, B, or C stability					
S1158	— ±100 ppm (-40 to +85)					
S1162	— ±100 ppm (±5% sym to 50 MHz)					

Technical Data

S1100 Series

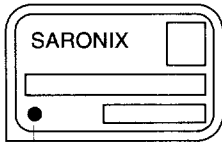
Package Details

FULL SIZE PACKAGE

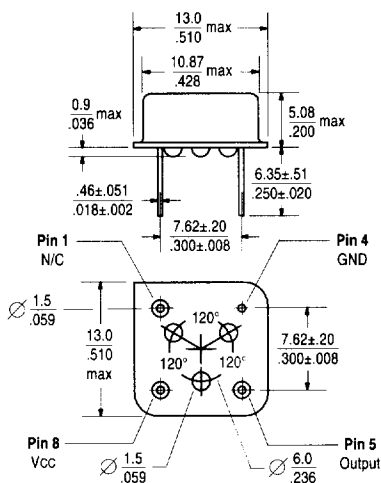


Standard Marking Format

Includes Date Code, Frequency & Model



Denotes Pin 1

HALF SIZE PACKAGE

Standard Marking Format

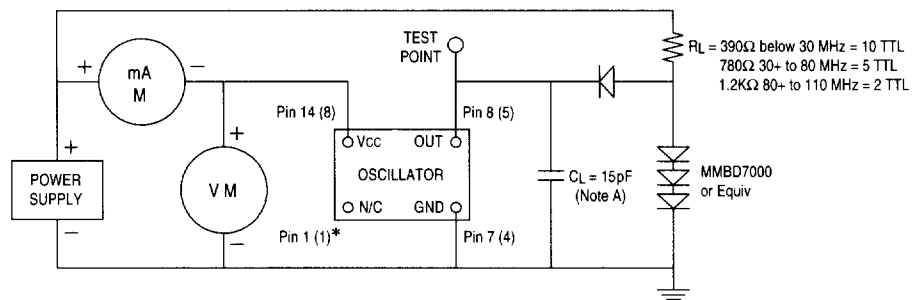
Includes Date Code, Frequency & Model



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.