

### Technical Data

S1149 Series



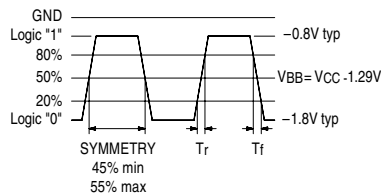
#### Description

A crystal-controlled oscillator providing precise rise and fall times to drive ECL logic devices. Unit is packaged in a 14-pin DIP compatible, resistance welded, all metal case. Open emitter output allows the user to select the load termination to optimize performance. Interchangeable with K1149 Series ECL oscillators.

#### Applications & Features

- Ideal for high resolution graphics and imaging applications
- 10KH compatible outputs
- Frequencies to 133 MHz
- Also see SaRonix S1150 half size or SEL3400 for higher frequencies or 3.3V operation
- See SEL3600/3700 for SMD ECL oscillator 33 to 155.52 MHz and 5V or 3.3V operation

#### Output Waveform – Neg. Supply



<b>Frequency Range:</b>	7 MHz to 133 MHz
<b>Frequency Stability:</b>	±20, ±25, ±50 or ±100 ppm over all conditions: calibration tolerance, operating temperature range, input voltage change, load change, aging, shock and vibration.
<b>Temperature Range:</b>	Operating: 0 to +70°C or -40 to +85°C Storage: -55°C to +125°C
<b>Supply Voltage:</b>	+5.0V nom (4.75 to 5.5) or -5.2V nom (-4.75 to -5.5)
<b>Supply Current:</b>	48mA typ complementary, 43mA typ single output, 80mA max
<b>Output Drive:</b>	Symmetry: 45/55% max @ V <sub>BB</sub> or Complementary Outputs Crossing Rise & Fall Times: 1ns typ, 3ns max, 20% to 80% for 10KH Logic "0": V <sub>CC</sub> -1.595, 0 to +70°C or -40 to +85°C Logic "1": V <sub>CC</sub> -1.02V min, 0 to +70°C or V <sub>CC</sub> -1.08, -40 to +85°C Load: 50Ω to V <sub>CC</sub> -2V Jitter: 3.5ps RMS period jitter, 1ps max 1σ cycle-to-cycle jitter

#### Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Terminal Strength:	MIL-STD-202, Method 211, Conditions A & 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

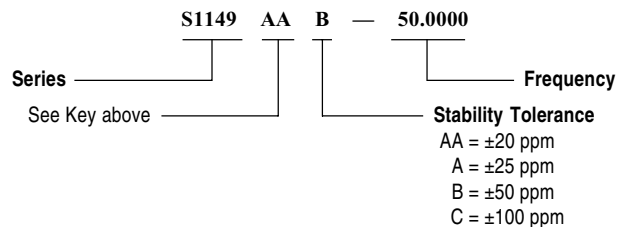
#### Environmental:

Gross Leak Test:	MIL-STD-883, Method 1014, Condition C
Fine Leak Test:	MIL-STD-883, Method 1014, Condition A
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

#### Part Numbering and Pin Assignment Guide

	S1149AA	S1149AB	S1149AC	S1149AM
Pin 1	Case Ground	Case Ground	No Connection	No Connection
Pin 7	VEE	VCC	VEE	Case Ground
Pin 8	ECL output	ECL output	ECL output	ECL output
Pin 14	VCC	VEE	Case Ground	VEE

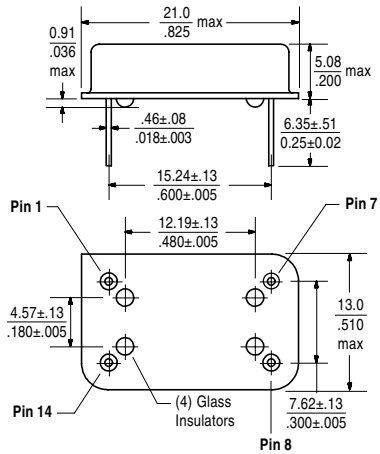
	S1149BA	S1149BC	S1149CA	S1149BM
Pin 1	ECL comp. out	ECL comp. out	No Connection	ECL comp. out
Pin 7	Case Ground	VEE	Case Ground	Case Ground
Pin 8	ECL output	ECL output	ECL output	ECL output
Pin 14	VCC	Case Ground	VCC	VEE



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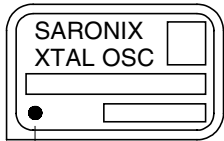
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#### Package Details



#### Standard Marking Format \*

Includes Date Code, Frequency & Model

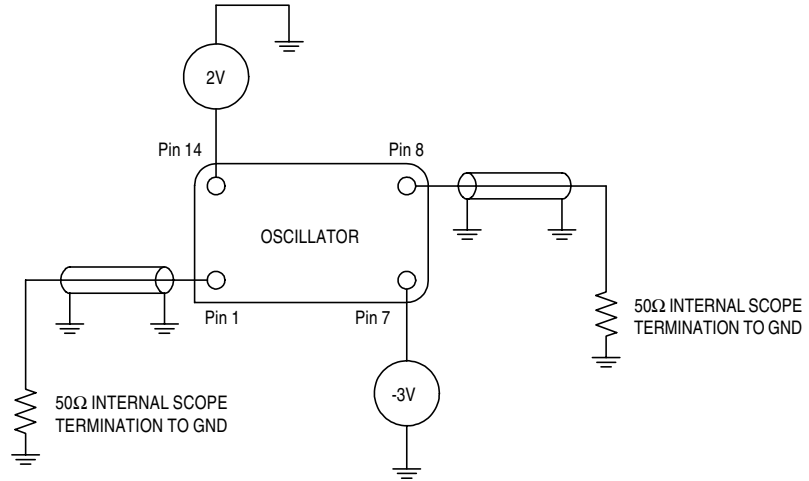


Denotes Pin 1

\* Exact location of items may vary

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

#### Test Circuit (S1149BA, S1149BC shown)



All specifications are subject to change without notice.