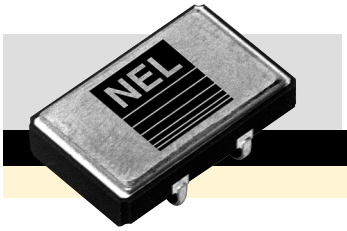


CMOS Compatible SJ-1450 Series

Description

The SJ-1450 Series of quartz crystal oscillators provide enable/disable 3-state CMOS compatible signals for bus connected systems. Supplying Pin 1 of the -1450 units with a logic “1” or open enables its Pin 3 output. In the disable mode, Pin 3 presents a high impedance to the load. All units are designed to survive standard wave soldering operations without damage.

Pin Connection

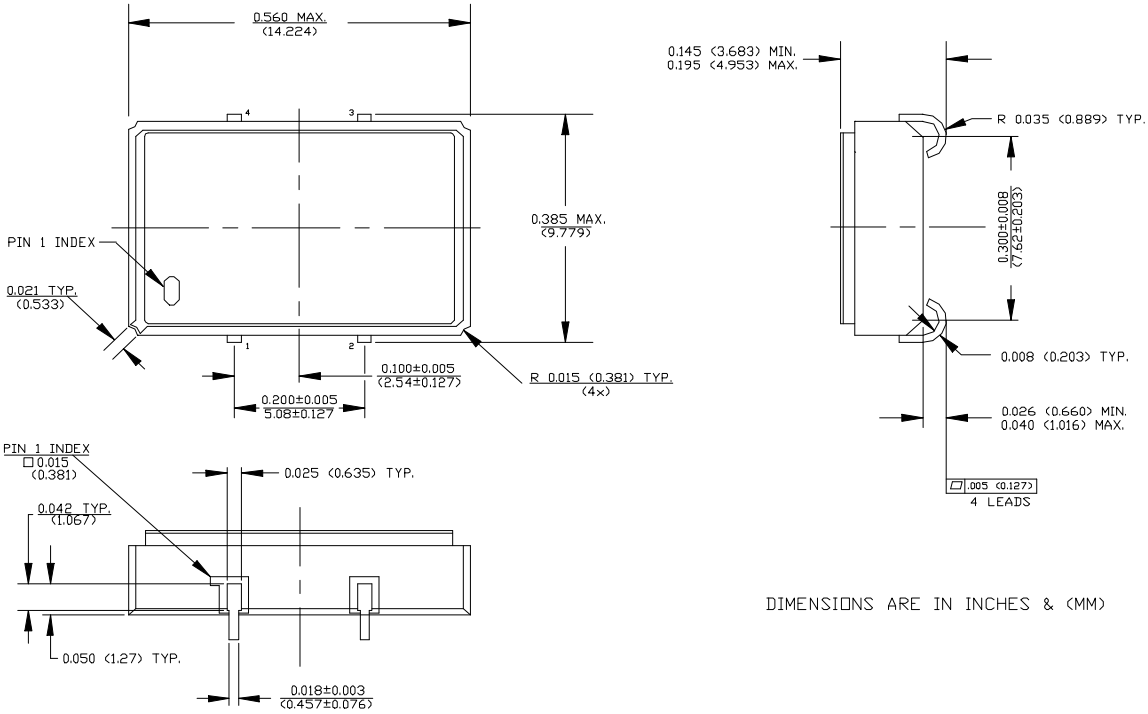
JEDEC	XTAL	Industry
6	1	Enable/Disable Input
10	2	Ground
20	3	Output
24	4	V_{DD}

Suggested Applications

The SJ-1450 Series oscillators are ideally suited for applications involving more than one clock or allows ATE (Automatic Test Equipment) board testing without having to remove the oscillator. In multiplexing applications, multiplex clock signals can be made available to a system using the enable/disable 3-state feature.

Features

- Wide frequency range—4.0MHz to 40.0MHz
- User specified tolerance from ±20ppm
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- Low power consumption
- High shock resistance, to 3000g
- 3.3 volt operation
- Metal lid electrically connected to ground to reduce EMI
- Gold plated leads—Solder dipped leads available upon request
- TTL compatible (HCT) at specified supply voltage



DIMENSIONS ARE IN INCHES & (MM)

NEL FREQUENCY CONTROLS, INC.
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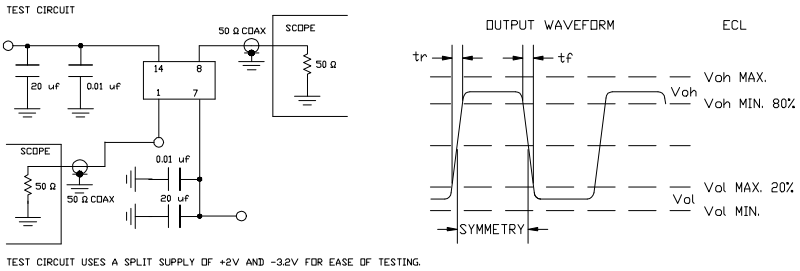
Continued
CMOS Compatible SJ-1450 Series

Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	Supply Breakdown	4.75V -0.5V	5.25V 7.0V
	Supply current (I_{DD})	V_{DD} or ground current	0.0 mA	30 mA
	Output current (I_O)	Low level output current	0.0 mA	±16.0 mA
	Tolerance	User specified	±20ppm	-----
	Operating temperature (T_A)	-----	0°C	70°C
	Storage temperature (T_S)	-----	-55°C	125°C
	Power dissipation (P_D)	-----	-----	158 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	4.0MHz	40.0MHz
	Symmetry	@.5V_{DD}	45/55%	55/45%
	Logic 0 (V_{OL})	I_O=600µA	-----	0.2V
	Logic 1 (V_{OH})	I_O=600µA	V_{DD} -0.2V	-----
	Logic 0 (I_{OL}sink)	V_O=0.2V	-----	600µA
	Logic 1 (I_{OH}source)	V_O=V_{DD}-0.2V	-----	600µA
	Rise & fall time (t_r,t_f)	10-90% V_O	-----	3 ns
	T_{pz} (Enable/disable to high or low)	-----	-----	25 ns



TEST CIRCUIT USES A SPLIT SUPPLY OF +2V AND -3.2V FOR EASE OF TESTING.

Specialty Oscillators for Unique Requirements
If the characteristics listed above do not meet your specific requirements, specialty solutions are often available.

For example, if you need better stability, extended temperature range, or tighter symmetry, NEL can provide a SJ-1459 series oscillator to serve your needs.

To let us know your special requirements, complete our Specialty Oscillator sheet. We will respond with the desired specialty oscillator, or discuss with you a solution that most closely meets your needs.

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