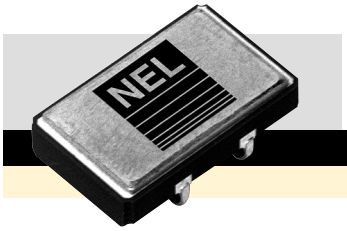


CMOS Compatible SJ-1430 Series

Description

The SJ-1430 Series of quartz crystal oscillators provide enable/disable 3-state CMOS compatible signals for bus connected systems. Supplying Pin 1 of the SJ-1430 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.

Pin Connection

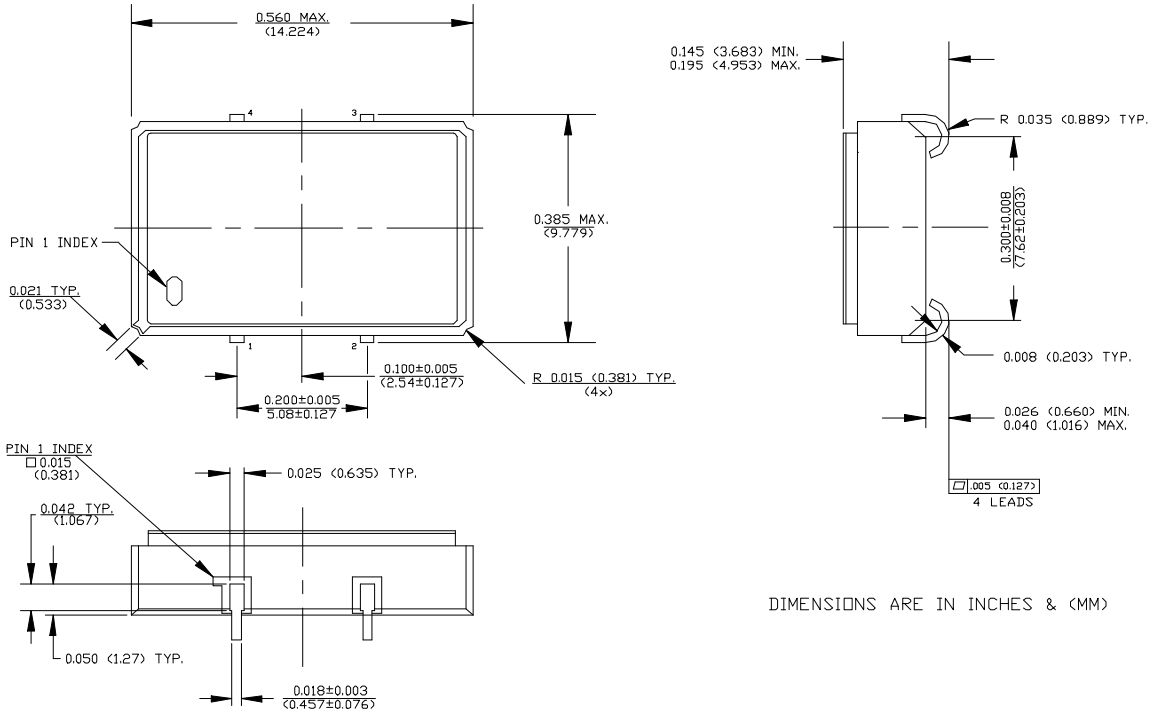
JEDEC	XTAL	Industry
6	1	Enable/ Disable
10	2	Ground
20	3	Output
24	4	V_{DD}

Suggested Applications

The SJ-1430 Series oscillators are ideally suited for applications involving more than one clock or source on the same bus. The high impedance state 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—80.0MHz to 125.0MHz
- User specified tolerance from ±20ppm
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- High shock resistance, to 3000g
- Metal lid electrically connected to ground to reduce EMI
- Gold plated leads—Solder dipped leads available upon request



DIMENSIONS ARE IN INCHES & (MM)

NEL FREQUENCY CONTROLS, INC.
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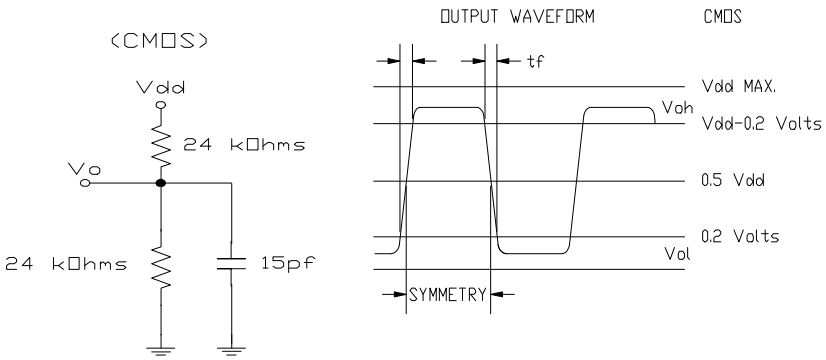
Continued
CMOS Compatible SJ-1430 Series

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(1)
	Supply current (I_{DD})	-----	0.0 mA	60 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)	-----	-----	315 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	80.0MHz	125.0MHz
	Symmetry	CMOS, @0.5V_{DD}	40/60%	60/40%(2)
	Logic 0 (V_{OL})	CMOS, driving equivalent load	-----	0.2V
	Logic 1 (V_{OH})	CMOS, driving equivalent load	V_{DD}-0.2V	-----
	Logic 0 (I_{OL} sink)	CMOS, driving equivalent load	-----	600µA
	Logic 1 (I_{OH}source)	CMOS, driving equivalent load	-----	600µA
	Rise & fall time (t_r,t_f)	CMOS @ 10-90% V_{DD}	-----	4 ns
	3-state enable/disable (T_{pz})	-----	-----	5 ms
	Footnote: (1)Over voltage causes the oscillator to draw extreme current, and damage occurs (2)45/55% symmetry available upon request			



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-1439 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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