



CMOS Compatible SJ-A1430 Series

Description

The **SJ-A1430 Series** of quartz crystal oscillators provide enable/disable 3-state CMOS compatible signals for bus connected systems. Supplying Pin 1 of the SJ-A1430 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

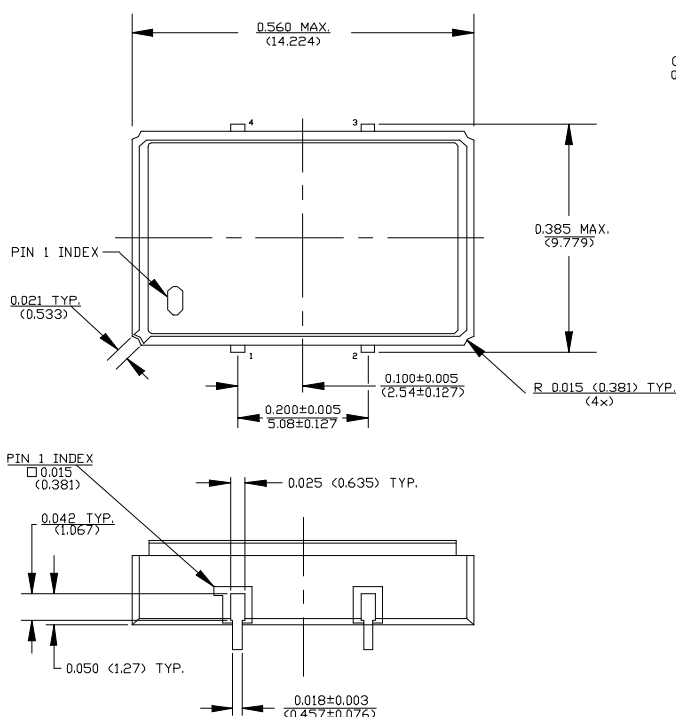
6	1	Enable/ Disable
10	2	Ground
20	3	Output
24	4	V _{DD}

Suggested Applications

The **SJ-A1430 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 ± 20 ppm
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- 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



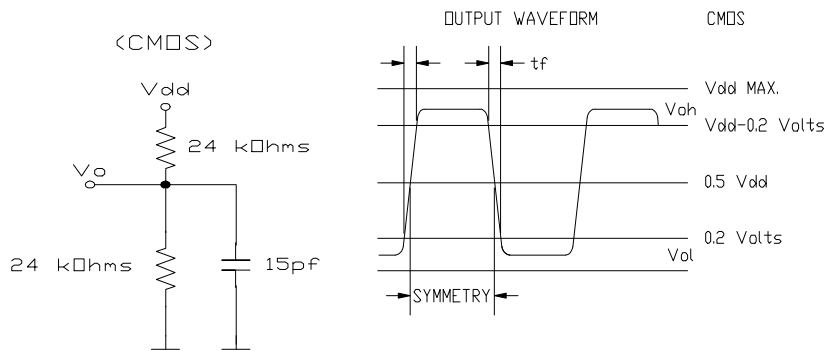
DIMENSIONS ARE IN INCHES & (MM)

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Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	Supply Breakdown	3.00V -0.5V	3.60V 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	± 20 ppm	-----
	Operating temperature (T_A)	-----	0°C	70°C
	Storage temperature (T_S)	-----	-55°C	125°C
	Power dissipation (P_D)	-----	-----	216 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	80.0MHz	125.0MHz
	Symmetry	CMOS, @0.5 V_{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	-----	600 μ A
	Logic 1 (I_{OH} source)	CMOS, driving equivalent load	-----	600 μ A
	Rise & fall time (t_r, t_f)	CMOS @ 10-90% V_{DD}	-----	4 ns
	3-state enable/disable (T_{p2})	-----	-----	5 ms
	Footnote: (1) Over voltage causes the oscillator to draw extreme current, and damage occurs (2) 45/55% symmetry available upon request			



This information has been carefully prepared and is believed to be entirely reliable. However, no responsibility is assumed for inaccuracies. NEL reserves the right to make changes at any time in order to improve design and supply the best product possible.

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-A1439 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.