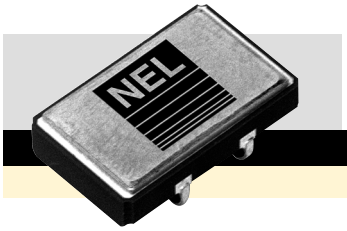


CMOS Compatible SJ-A390 Series

Description

The SJ-A390 Series of quartz crystal oscillators provide CMOS compatible signals for general purpose timing applications.

Suggested Applications

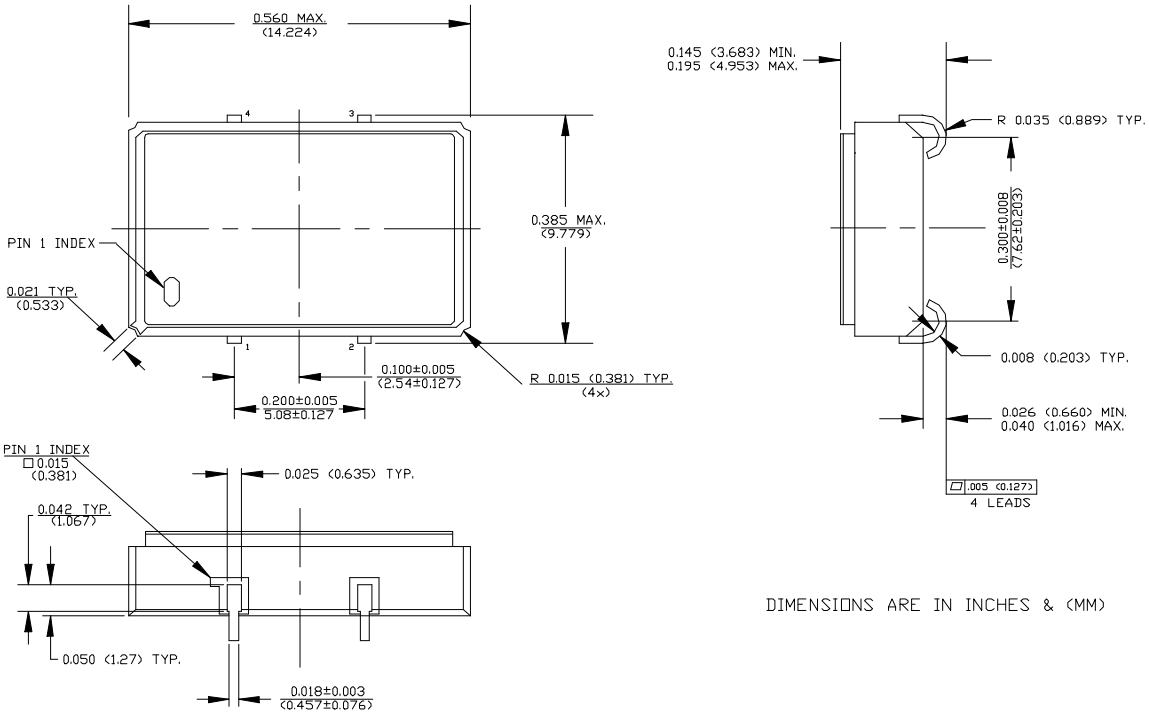
The SJ-A390 Series oscillators are ideally suited for general purpose timing applications.

Features

- Wide frequency range—70.1MHz 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
- 3.3 volt operation
- Metal lid electrically connected to ground to reduce EMI
- Gold plated leads—Solder dipped leads available upon request

Pin Connection

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



DIMENSIONS ARE IN INCHES & (MM)

NEL FREQUENCY CONTROLS, INC.
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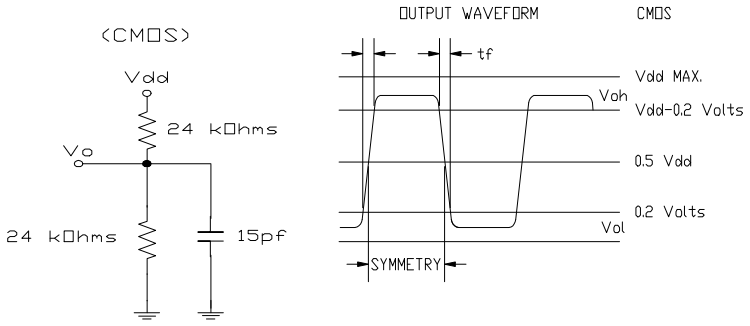
Continued
CMOS Compatible SJ-A390 Series

Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	Supply Breakdown	3.00V -0.5V	3.3V	3.60V 7.0V (1)
	Supply current (I_{DD})	-----	0.0 mA	40mA	60 mA
	Output current (I_O)	Low level output current	0.0 mA		25.0 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)	-----	-----		216 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----		300°C
Output Characteristics	Frequency	-----	70.1MHz		125.0MHz
	Symmetry	CMOS, @0.5V_{DD}	45/55%	50/50%	55/45%
	Logic 0 (V_{OL})	CMOS, driving equivalent load	-----	0.1V	0.2V
	Logic 1 (V_{OH})	CMOS, driving equivalent load	V_{DD}-0.2V	V_{DD}-0.1V	-----
	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% to 90% V_{DD}	-----	1 ns	2 ns

Footnote:
(1)Over voltage causes the oscillator to draw extreme current, and damage occurs



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-A399 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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