



## ECL Compatible SJ-800 Series

### Description

The **SJ-800 Series** of quartz crystal oscillators provide MECL 10K and 10KH series compatible signals in a ceramic SMD package. Systems designers may now specify space-saving, cost-effective packaged ECL oscillators to meet their timing requirements.

#### XTAL Industry

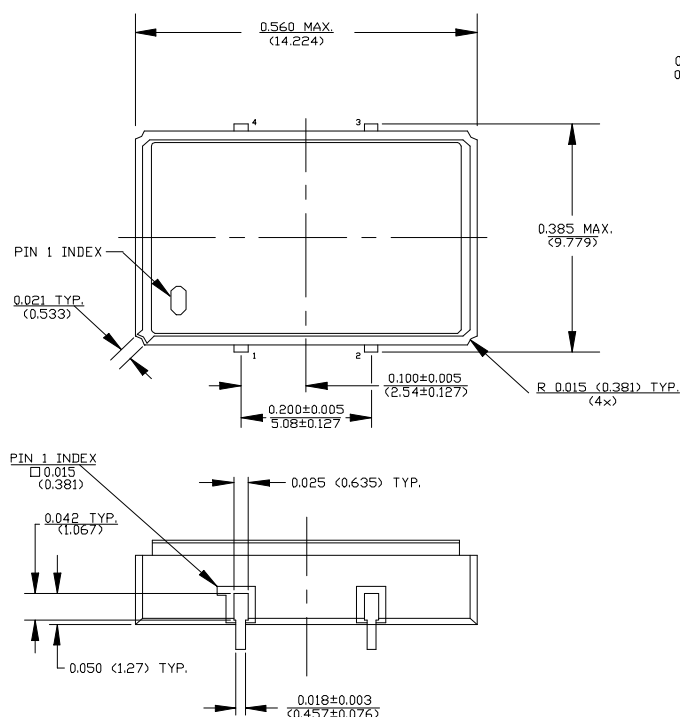
Pin	Connection
1	N.C.
2	$V_{CC}$ Grd & Case
3	Output
4	$V_{EE}$ -5.2V

#### JEDEC

Pin	Connection
6	N.C.
10	$V_{CC}$ Grd & Case
20	Output
24	$V_{EE}$ -5.2V

### Features

- Wide frequency range—18.0MHz to 250.0MHz
- User specified tolerance from  $\pm 20$ ppm
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- MECL 10k and 10kH Series compatible output on Pin 3
- Space-saving alternative to discrete component oscillators
- 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)

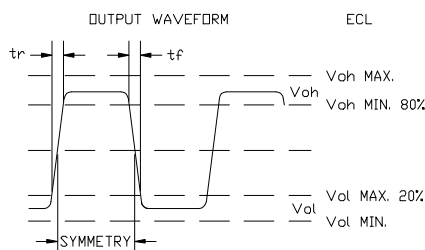
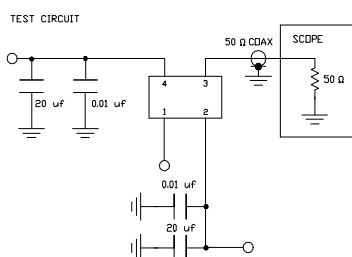


**FREQUENCY  
CONTROLS, INC.**

## Continued ECL Compatible SJ-800 Series

### Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage ( $V_{EE}$ )	-----	-5.46V	-4.94V
	Supply current ( $I_{EE}$ )	$V_{CC}$ or ground current	0.0 mA	80 mA
	Output current ( $I_O$ )	Low level output current	0.0 mA	$\pm 50.0$ mA
	Tolerance	User specified	$\pm 20$ ppm	-----
	Operating temperature ( $T_A$ )	-----	0°C	70°C
	Storage temperature ( $T_S$ )	-----	-55°C	125°C
	Power dissipation ( $P_D$ )	-----	-----	437 mW
	Lead temperature ( $T_L$ )	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	18.0MHz	250.0MHz
	Symmetry	@ $V_{CC}$ -1.29V level	45/55%	55/45%
	Logic 0 ( $V_{OL}$ )	-----	$V_{CC}$ -1.95V	$V_{CC}$ -1.60V
	Logic 1 ( $V_{OH}$ )	-----	$V_{CC}$ -1.02V	$V_{CC}$ -0.74V
	Rise & fall time ( $t_r, t_f$ )	20-80% $V_O$	-----	2.25 ns



#### 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-809 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.

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.