



ECL Compatible HS-800/810 Series

Description

The **HS-800/810 Series** of quartz crystal oscillators provide MECL 10k and 10kH series compatible signals in industry standard four-pin DIP hermetic packages. Systems designers may now specify space-saving, cost-effective packaged ECL oscillators to meet their timing requirements.

HS-800

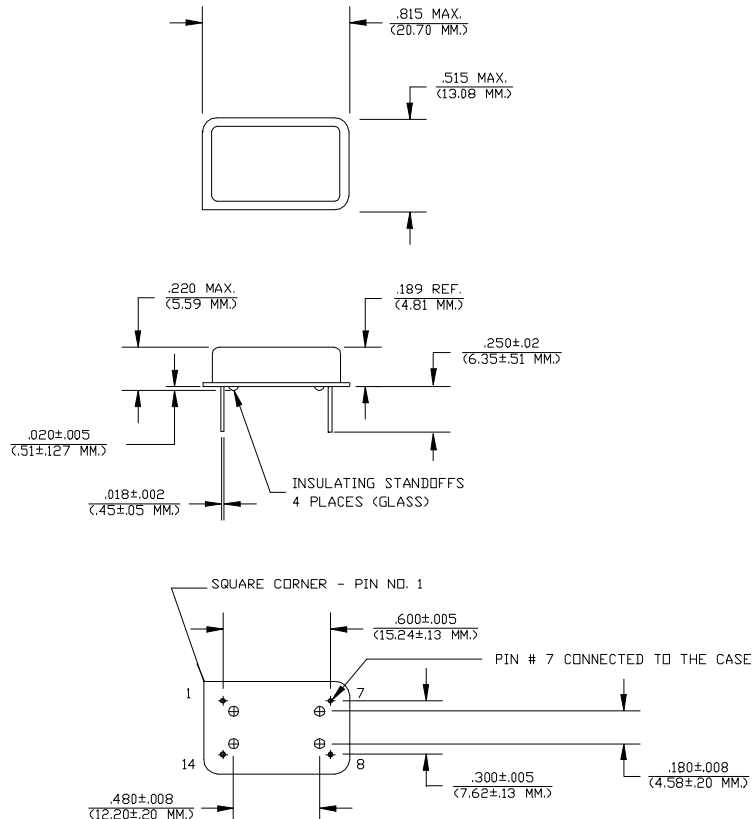
Pin	Connection
1	N.C.
7	V_{CC} Grd & Case
8	Output
14	V_{EE} -5.2V

HS-810

Pin	Connection
1	N.C.
7	V_{EE} -5.2V
8	Output
14	V_{CC} Grd & Case

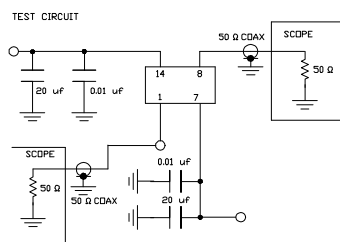
Features

- Wide frequency range—15.0MHz to 250.0MHz
- User specified tolerance from ± 20 ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- MECL 10k and 10kH series compatible output on Pin 8
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 3000g
- Space saving alternative to discrete component oscillators

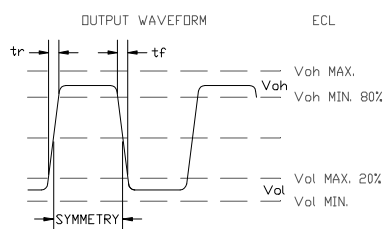


Continued ECL Compatible HS-800/810 Series

Operating Conditions and Output Characteristics			
	PARAMETER	CONDITIONS	MINIMUM MAXIMUM
General Characteristics	Supply voltage (V_{EE})	----- Breakdown	-5.46V -4.94V -8.0V +0.5V
	Supply current (I_{CC})	V_{CC} or ground current	0.0 mA 80 mA
	Output current (I_O)	Low level output current	0.0 mA ± 50.0 mA
	Tolerance	User specified	± 20 ppm -----
	Operating temperature (T_A)	-----	0°C 70°C
	Storage temperature (T_S)	-----	-55°C 125°C
Output Characteristics	Frequency ⁽³⁾	-----	15.0MHz 250.0MHz
	Symmetry	@ -1.29V level	45/55% 55/45%
	Logic 0 (V_{OL}) ⁽²⁾	-----	-1.95V -1.60V
	Logic 1 (V_{OH}) ⁽²⁾	-----	-1.02V -0.74V
	Rise & fall time (t_r, t_f)	20-80% V_O	----- 2.25 ns
	Footnote: (2) V_{OL} , V_{OH} , referenced to ground (3) Frequencies up to 320MHz available upon request		



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 HS-809/819 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.