

**PECL Compatible HS-2920 Series**

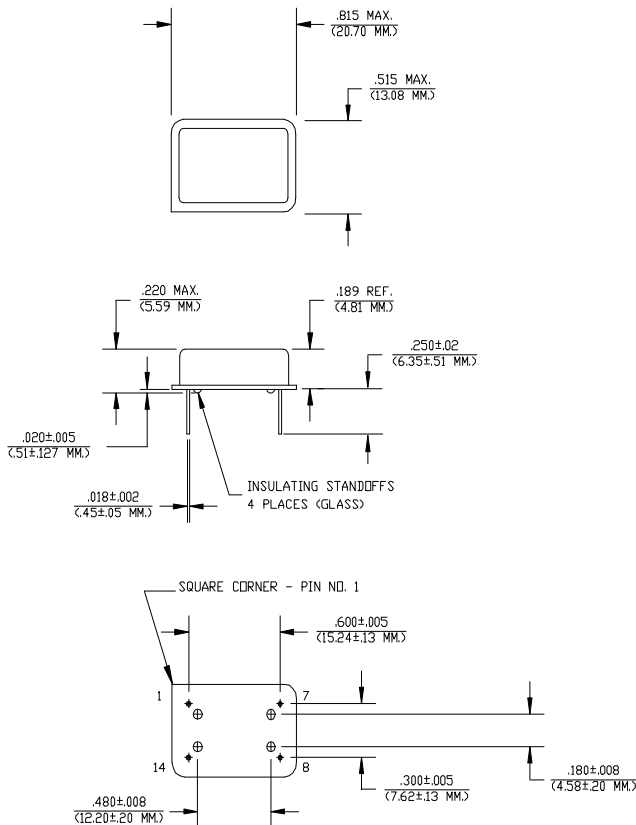
**Description**

The HS-2920 Series of quartz crystal oscillators provide ECLiPS compatible signals in industry standard four-pin DIP hermetic packages. Systems designers may now specify space-saving, cost-effective packaged PECL oscillators to meet their timing requirements.

**Features**

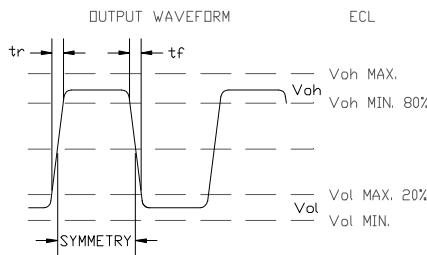
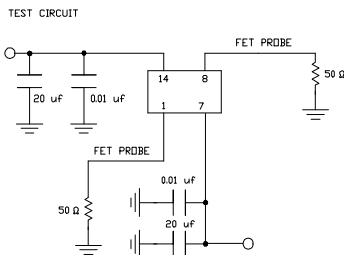
- Wide frequency range—50.0MHz to 200.0MHz
- User specified tolerance from  $\pm 20$ ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- ECLiPS compatible output on Pin 8, complement on Pin 1
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 3000g
- 5 volt operation
- Fast rise and fall times, <600 ps

Pin	Connection
1	Output Complement
7	V <sub>EE</sub> Grd & Case
8	Output
14	V <sub>CC</sub>



Continued  
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Operating Conditions and Output Characteristics				
	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage ( $V_{CC}$ )	-----	4.75V	5.25V
	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	$\pm 50.0$ 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 ( $P_D$ )	-----	-----	420 mW
	Lead temperature ( $T_L$ )	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	50.0MHz	200.0MHz
	Symmetry	@2.01V level	45/55%	55/45%
	Logic 0 ( $V_{OL}$ ) <sup>(2)</sup>	-----	3.05V	3.40V
	Logic 1 ( $V_{OH}$ ) <sup>(2)</sup>	-----	3.98V	4.26V
	Rise & fall time ( $t_r, t_f$ )	20-80% $V_O$	-----	600 ps
	Footnote: <sup>(2)</sup> $V_{OL}, V_{OH}$ , referenced to ground ( $V_{EE}$ ) with $V_{CC}=5V$			



**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-2929 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.