



## Positive ECL Compatible SK-A2900 Series

### Description

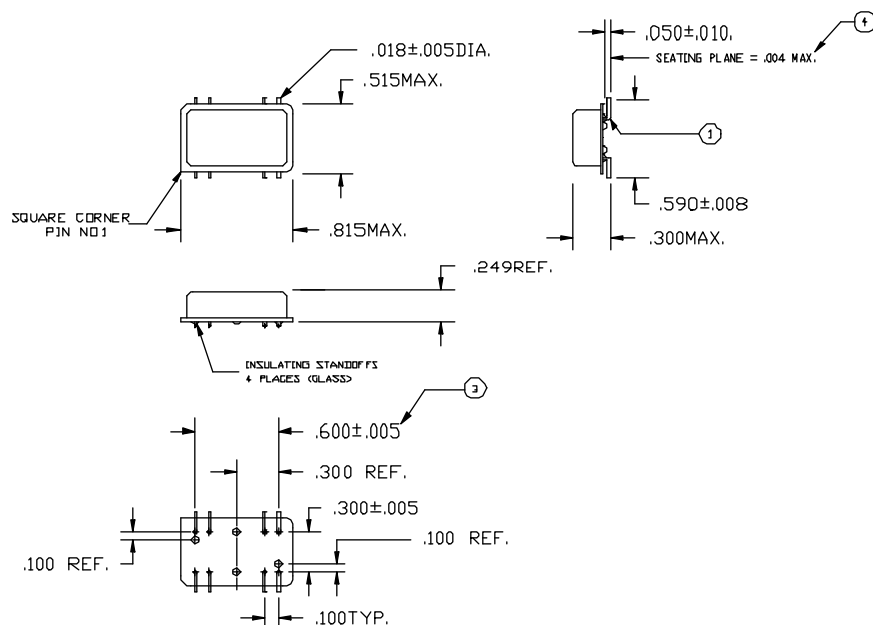
The **SK-A2900 Series** of quartz crystal oscillators provide ECLiPS compatible signals. This device is to operate using positive voltage and uses multiple ground pins for improved signal integrity. This device is intended to operate on positive voltage for PECL applications.

### Features

- Wide frequency range—250.0MHz to 525.0MHz
- User specified tolerance  $\pm 50$ ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 1500g

### Pin Connection

- |    |                |
|----|----------------|
| 1  | $V_{CC}$       |
| 2  | $V_{EE}$ Case  |
| 6  | $V_{EE}$ Case  |
| 7  | Output         |
| 8  | /Output        |
| 9  | $V_{EE}$ Case  |
| 13 | $V_{EE}$ Case  |
| 14 | Enable/Disable |



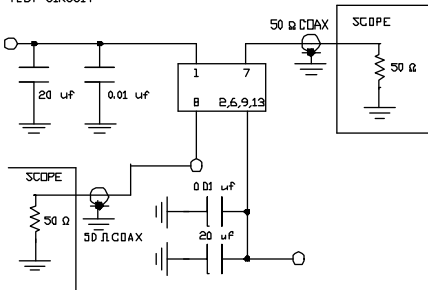
## Continued

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## Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage ( $V_{CC}$ )	-----	3.135V	3.465V
	Supply current ( $I_{CC}$ )	50 ohm termination to 2.00V below $V_{CC}$	0.0 mA	120 mA
	Output current ( $I_O$ )	Low level output current	0.0 mA	$\pm 50.0$ mA
	Tolerance	User specified	$\pm 50$ ppm	-----
	Operating temperature ( $T_A$ )	-----	0°C	70°C
	Storage temperature ( $T_S$ )	-----	-55°C	125°C
	Lead temperature ( $T_L$ )	Soldering, 10 sec.	-----	300°C
	Input: Logic High (ECL) - Disables $V_{EE}$ or Open - Enables			
Electrical Characteristics	Symmetry	@50%points	45/55%	55/45%
	Logic 0 ( $V_{OL}$ ) <sup>(1)</sup>	-----	$V_{CC}-1.95V$	$V_{CC}-1.60V$
	Logic 1 ( $V_{OH}$ ) <sup>(1)</sup>	-----	$V_{CC}-1.02V$	$V_{CC}-0.74V$
	Rise & fall time ( $t_r, t_f$ )	20-80% $V_O$	-----	600 psec
	Enable Voltage	with $V_{EE}=0V$	0V	1.0V <sup>(3)</sup>
	Disable Voltage	with $V_{EE}=0V$	3.0V	$V_{CC}$
	Footnote: (1) $V_{OL}, V_{OH}$ , referenced to ground (3)Open to Enable pin also enables the output			

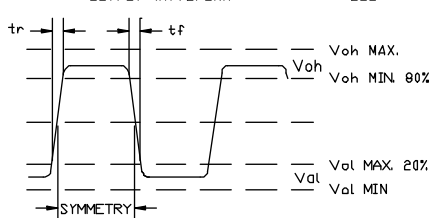
TEST CIRCUIT



TEST CIRCUIT USES A SPLIT SUPPLY OF +2V AND -3V FOR EASE OF TESTING

OUTPUT WAVEFORM

ECL



## 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 SK-A2909 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.



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CONTROLS, INC.**