CRYSTAL CLOCK OSCILLATORS

Data Sheet 9420A
Rev. H

CMOS Compatible HS-370 Series

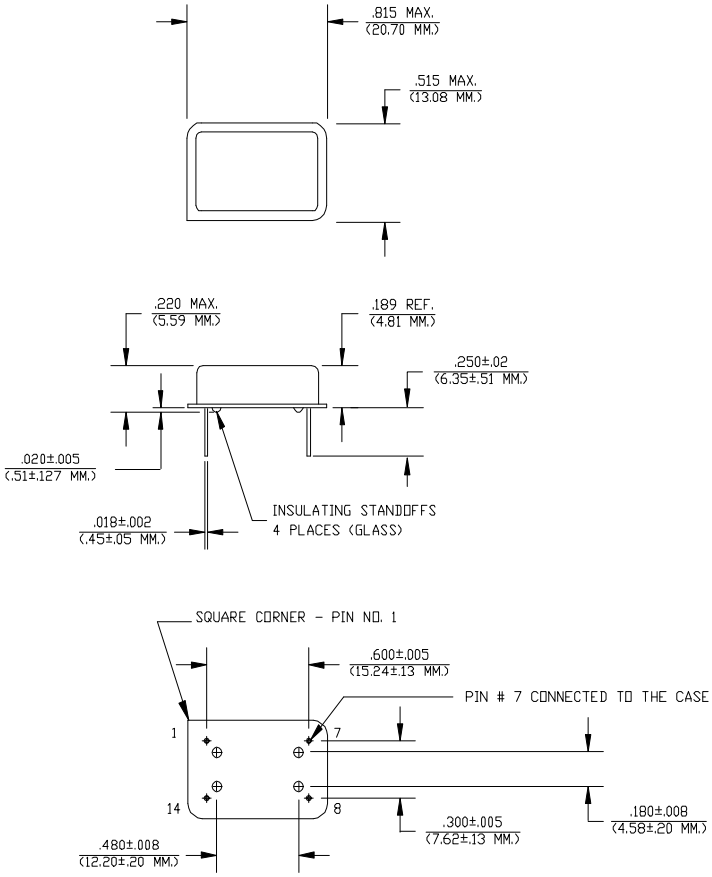
Description

The HS-370 Series of quartz crystal oscillators are resistance welded in an all metal package, offering RFI shielding, and are designed to survive standard wave soldering operations without damage. Insulated standoffs to enhance board cleaning are standard.

Features

- Wide frequency range—0.5MHz to 85.0MHz
- User specified tolerance from ±20ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- Low power consumption
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 3000g

Pin	Connection
1	N.C.
7	Grd & case
8	Output
14	V_{DD}



NEL FREQUENCY CONTROLS, INC.

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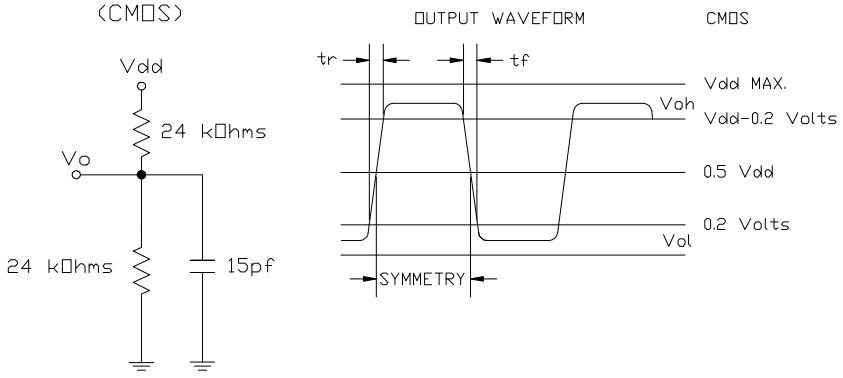
Continued
CMOS Compatible HS-370 Series

Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	-----	4.75V	5.25V
	Supply current (I_{DD})	V_{DD} or ground current	0.0 mA	50 mA
	Output current (I_O)	Low level output current	0.0 mA	±16.0 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)	-----	-----	263 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	0.5MHz	85.0MHz
	Symmetry	@.5V_{DD}	45/55	55/45%
	Logic 0 (V_{OL})	I_O=600µA	-----	0.2V
	Logic 1 (V_{OH})	I_O=600µA	V_{DD}-0.2V	-----
	Logic 0 (I_{OL} sink)	V_O=0.2V	-----	600µA
	Logic 1 (I_{OH}source)	V_O=V_{DD} -0.2V	-----	600µA
	Rise & fall time (t_r,t_f)	10-90% V_O <40MHz ≥40MHz	 ----- -----	 8 ns 4 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 HS-379 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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