CMOS Compatible HS-420 Series

Description

The HS-420 Series of quartz crystal oscillators are MOS compatible (4000 Series CMOS, 74C, 74HC and NMOS driving up to 50pf). Insulated standoffs to enhance board cleaning are standard.

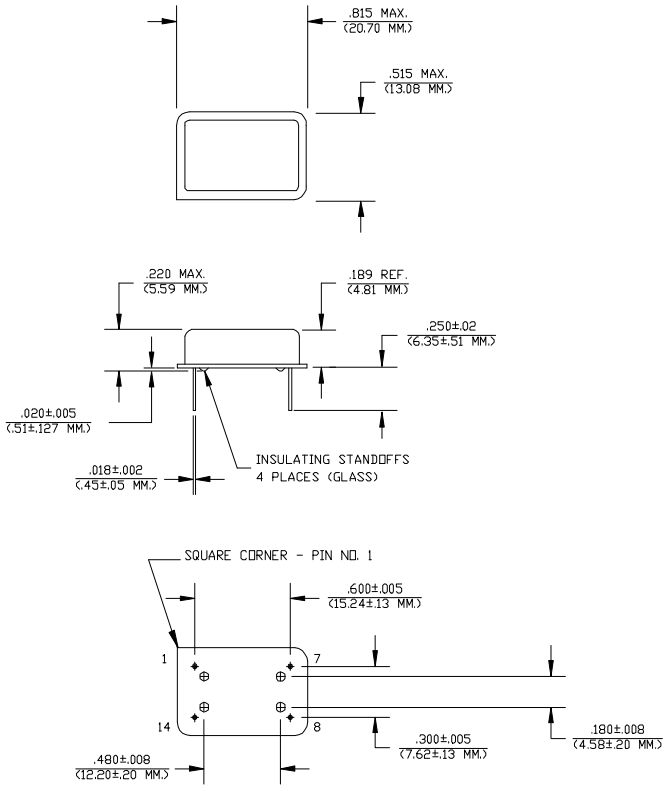
Pin	Connection
1	N.C.
7	Grd & Case
8	Output
14	V_{DD}

Suggested Applications

The HS-420 Series is a general purpose CMOS oscillator with applications that include CMOS microprocessor timing control, instrument timing control, and other applications needing precise timing.

Features

- Wide frequency range—244.0Hz to 625.0kHz
- 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
- Capable of driving 3TTL loads



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Continued
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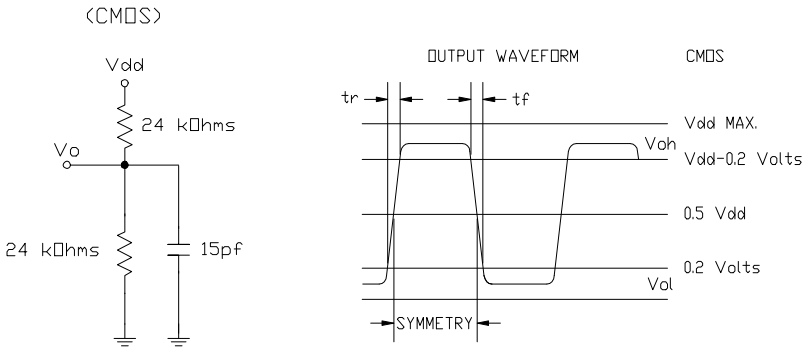
Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	DC supply voltage	4.5V	5.5V
	Supply current (I_{DD})	All frequencies	-----	9.5 mA
	Output current (I_O)	High or low level output current	-----	±25.0 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)	-----	-----	53 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	244.0Hz	625.0KHz
	Symmetry	@.5V_{DD}	45/55%	55/45%
	Logic 0 (V_{OL})	I_O=600µA	0.05V typical	0.2V
	Logic 1 (V_{OH})	I_O=600µA	V_{DD} -0.2V	-----
	Logic 0 (I_{OL} sink)	Driving equiv. load	-----	-600µA
	Logic 1 (I_{OH} source)	Driving equiv. load	-----	600µA
	Rise & fall time (t_r,t_f)	10-90% V_{DD} 5V	7ns typical	30 ns
	Start time	from V_{DD} =4.5V	1ms typical	5 ms



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-429 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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