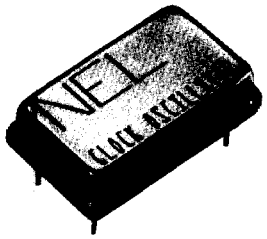
NEL Crystal Clock Oscillators

CMOS Compatible

HS-360 Series (General Purpose) 75.0 MHz - 200.0 MHz



Description

The HS-360 Series are general purpose CMOS oscillators (including 4000 Series CMOS, ACMOS, MOS, HCMOS, 74C, 74HC and NMOS).

All units 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.

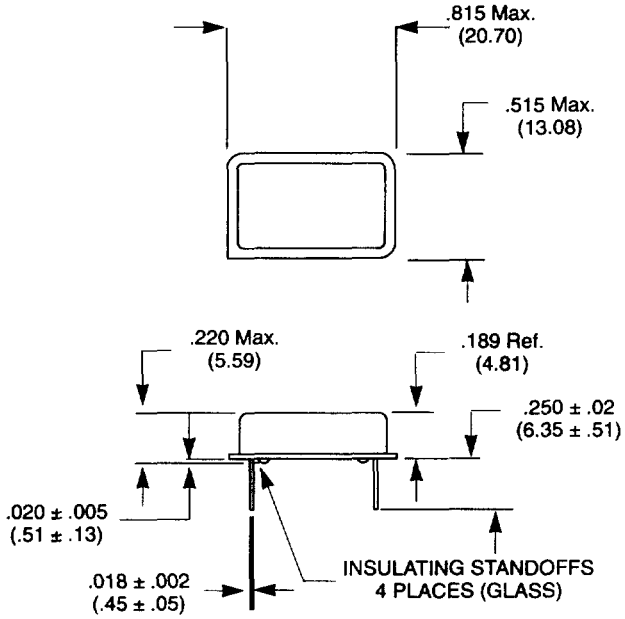
Suggested Applications

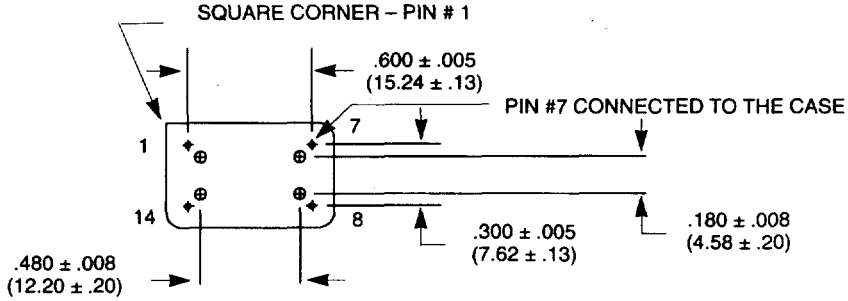
☐ These oscillators are ideally suited for microprocessor timing control and use in instrument controllers.

Features

- ☐ Wide frequency range - 75.0 to 200.0 MHz (consult factory for higher frequency requirements)
- ☐ User specified tolerance from ±0.0025 %
- ☐ Low power consumption
- ☐ All metal, resistance welded, hermetically sealed package
- ☐ High shock resistance, to 3000 G's
- ☐ TTL available upon request
- ☐ 3.3 V option available upon request up to 160 MHz

Dimensions
inches (mm)





Pin	Connections
1	N.C.
7	grd & case
8	Output
14	V_{DD}

NELFS00173

NEL FREQUENCY CONTROLS, INC. 357 Beloit Street, P.O. Box 457, Burlington WI 53105-0457 U.S.A. Phone 414/763-3591 FAX 414/763-2881

Crystal Clock Oscillators

Operating Conditions and Output Characteristics

CMOS Compatible

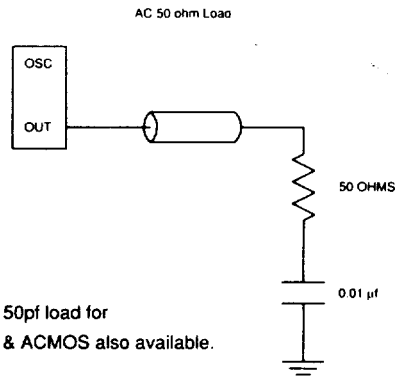
HS-360 Series
(General Purpose)
75.0 MHz - 200.0 MHz

PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics			
Supply voltage (V_{DD})	Supply	4.75V[1]	5.25V
	Breakdown	–0.5V	7.0V
Supply current (I_{DD})	No Output Load, <140 MHz	—	80 mA
	@ ≥140 MHz	—	100 mA
Output current (I_O)	—	0.0 mA	16.0 mA
Operating temperature (T_A)[2]	—	0° C	70° C
Storage temperature (T_S)	—	–55° C	+125° C
Power dissipation (P_D)	—	—	525 mW
Lead temperature (T_L)	Soldering, 10 s	—	300° C
Output Characteristics			
Tolerance	User Specified	±0.0025%	—
Symmetry	$\frac{V_{DD}}{2}$	40/60%	60/40%
Logic 0 (V_{OL})	Driving equiv.load	—	0.2 V
Logic 1 (V_{OH})	Driving equiv.load	V_{DD} -0.2 V	—
Rise & fall time (t_r,t_f)	@ 10% to 90% of V_{DD}	—	3 ns

Footnotes:
1. Lower voltage operation option to 3V available.
2. -55° C to +125° C available for some frequencies.

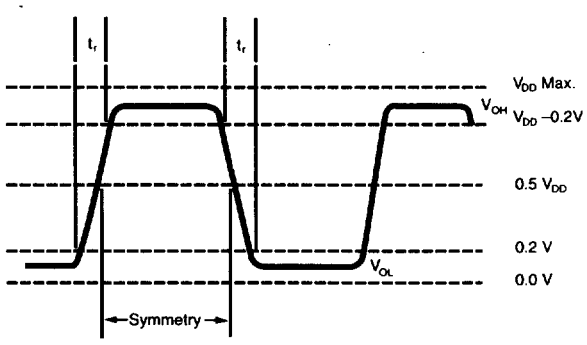
Note: Overvoltage causes the oscillator to draw extreme current, and damage occurs.

Test Circuit



Optional 50pf load for HCMOS & ACMOS also available.

Output Waveform



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