

CRYSTAL CONTROLLED OSCILLATORS

5.0V 8 PIN DIP TRI-STATE CLOCK OSCILLATOR

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-55	-	125	°C	
Supply Voltage	(Vcc)	-0.5	-	7.0	Vdc	
Input Voltage	(Vin)	-0.5	-	Vcc+0.5	Vdc	

MODEL SPECIFICATIONS:

TABLE 2.0

MODEL H51RL						
PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	5	-	30	MHz	
Frequency Tolerance:		-25	-	25	ppm	1
MODEL H52RL						
Frequency Range	(Fo)	5	-	30	MHz	
Frequency Tolerance:		-50	-	50	ppm	1
MODEL H53RL						
Frequency Range	(Fo)	5	-	30	MHz	
Frequency Tolerance:		-100	-	100	ppm	1

OPERATING SPECIFICATIONS

TABLE 3.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Operating Temperature Range		-5	-	70	°C	
Supply Voltage	(Vdd)	4.5	5.0	5.5	Vdc	
Supply Current	(Icc)	-	1.5	3.0	mA	
Supply Current	(IST)	-	6	15	uA	2

INPUT CHARACTERISTICS

TABLE 4.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Enable Voltage (High)	(Vih)	70% Vdd	-	-	Vdc	3
Disable Voltage (Low)	(Vil)	-	-	30% Vdd	Vdc	
Enable Time		-	-	100	ns	
Disable Time		-	3	10	ms	

HCMOS OUTPUT CHARACTERISTICS

TABLE 5.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	4.0	-	-	Vdc	
(Low)	(Vol)	-	-	0.4	Vdc	
Current (High)	(Ioh)	-3.2	-	-	mA	
(Low)	(Iol)	-	-	3.2	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	3	9	ns	
Start-Up Time		-	-	10	ms	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	

PACKAGE CHARACTERISTICS

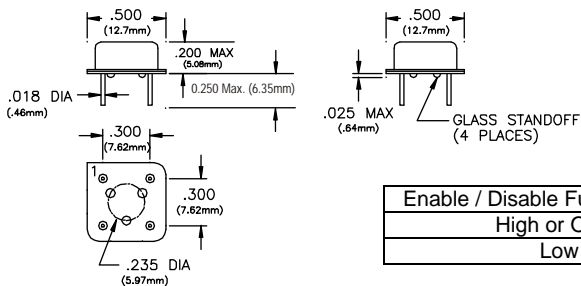
TABLE 6.0

Package	Hermetically sealed metal package
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Notes:

- Inclusive of calibration @ 25°C, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 10 years aging.
- Standby current when oscillator is disabled.
- Oscillator output is enabled with no connection on pin 1

Package Outline



Pin Connections

Pin	Connection
1	Enable/Disable
2	Ground
3	Output
4	Vcc

Enable / Disable Function (Pin 1)	Output
High or Open	Enable
Low	Disable (High Impedance)



H51RL
H52RL
H53RL

DESCRIPTION

Description:
Connor Winfield models H5xRL are 5.0V HCMOS, Surface Mount, Fixed Frequency Crystal Oscillator (XO) designed for use in all applications requiring precision clocks with low power consumption.

FEATURES

- 5 to 30 MHz
- 5.0V OPERATION
- LOW CURRENT CONSUMPTION
- TRI-STATE ENABLE/DISABLE
- OVERALL FREQUENCY TOLERANCE:

H51RL ±25ppm
H52RL ±50ppm
H53RL ±100ppm

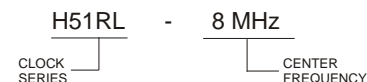
TEMPERATURE RANGE: -5 to 70°C

LOW JITTER: < 1ps

HERMETICALLY SEALED PACKAGE

RoHS 5/6 COMPLIANT

ORDERING INFORMATION



Specifications subject to change without notice.