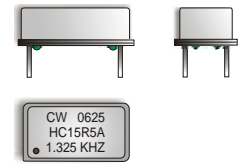


CRYSTAL CONTROLLED OSCILLATORS

3.3V LVCMOS 14 PIN DIP CRYSTAL CLOCK OSCILLATOR



HC15R5A
HC14R5A
HC13R5A

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	

MODEL SPECIFICATIONS:

MODEL HC15R5A

TABLE 2.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.0 KHz	-	1.0 MHz		
Frequency Tolerance:		-100	-	100	ppm	1
Operating Temperature Range		0	-	70	°C	

MODEL HC14R5A

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.0 KHz	-	1.0 MHz		
Frequency Tolerance:		-50	-	50	ppm	1
Operating Temperature Range		0	-	70	°C	

MODEL HC13R5A

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.0 KHz	-	1.0 MHz		
Frequency Tolerance:		-25	-	25	ppm	1
Operating Temperature Range		0	-	70	°C	

OPERATING SPECIFICATIONS

TABLE 3.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Supply Voltage	(Vdd)	3.135	3.3	3.465	Vdc	
Supply Current	(Icc)	-	-	30	mA	

LVCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	Vcc-0.5V	-	-	Vdc	
(Low)	(Vol)	-	-	0.4	Vdc	
Current (High)	(Ioh)	-8	-	-	mA	
(Low)	(Iol)	-	-	8	mA	
Duty Cycle measured at 50% of Vcc		45	50	55	%	
Rise / Fall Time measured at 10% to 90%		-	3	6	ns	
Start-Up Time		-	3	10	ms	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	

PACKAGE CHARACTERISTICS

TABLE 5.0

Package	Hermetically sealed metal package
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Note:

- Inclusive of calibration @ 25°C, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 10 years aging.

DESCRIPTION

Connor Winfield models HC15R5A, HC14R5A and HC13R5A are 3.3V LVCMOS, fixed frequency Crystal Oscillators (XO). The HC15R5A, HC14R5A and HC13R5A are designed for use in all applications requiring a precision clock.

FEATURES

FREQUENCY RANGE: 1.0 KHZ to 1.0 MHZ

3.3V OPERATION

OVERALL FREQUENCY TOLERANCE:
HC15R5A ±100ppm
HC14R5A ±50ppm
HC13R5A ±25ppm

TEMPERATURE RANGE: 0 to 70°C

LOW JITTER: <1 PS

HERMETICALLY SEALED PACKAGE

ORDERING INFORMATION

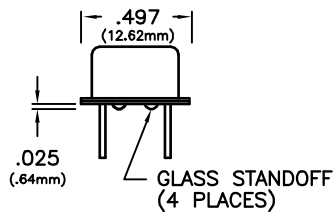
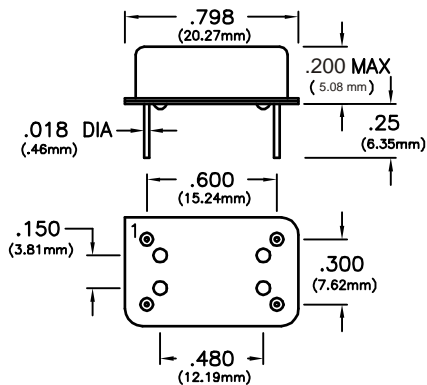
HC15R5A - 1.325 KHz

CLOCK
SERIES

CENTER
FREQUENCY

Specifications subject to change without notice.

CRYSTAL CONTROLLED OSCILLATORS

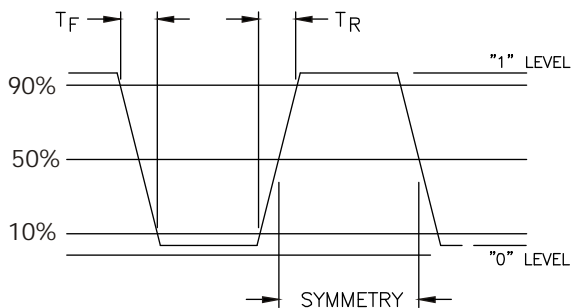


Dimensional Tolerance:
±.005 (.127mm)
±.02 (.508mm)

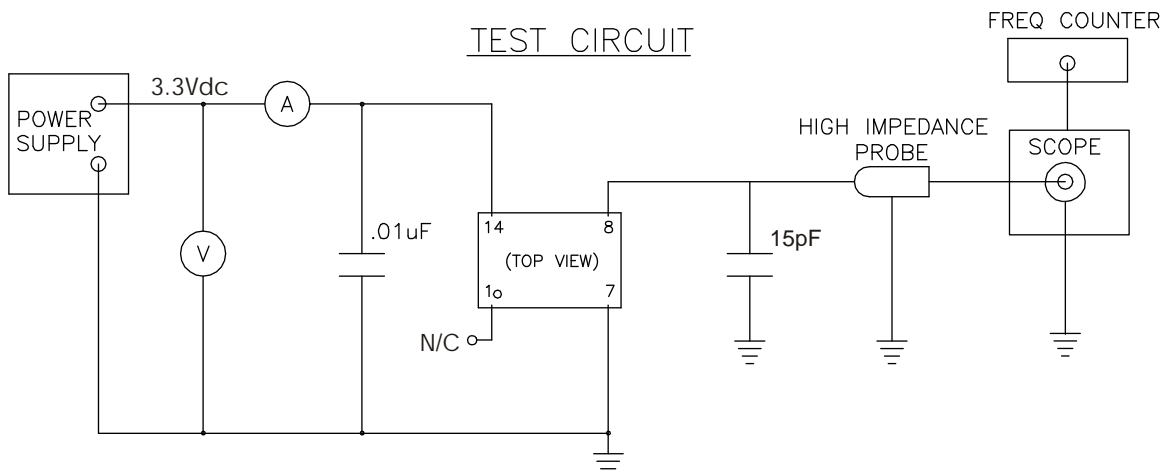
TABLE 6.0

Pin	Connection
1	N/C
7	Ground
8	Output
14	Vcc

OUTPUT WAVEFORM



TEST CIRCUIT



Specifications subject to change without notice.