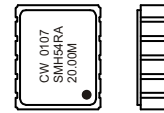


CRYSTAL CONTROLLED OSCILLATORS

3.3V SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR
WITH ENABLE / DISABLE



SMH54RA

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-40	-	85	°C	
Supply Voltage	(Vcc)	-0.5	-	7.0	Vdc	

OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	1.0	-	70.0	MHz	
Frequency Tolerance:		-20	-	20	ppm	1
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vdd)	3.135	3.3	3.465	Vdc	
Supply Current	1.0 to 31.99 MHz	(Icc)	-	15	mA	
	32 to 49.99 MHz	(Icc)	-	20	mA	
	50 to 66.99 MHz	(Icc)	-	25	mA	
	67 to 70 MHz	(Icc)	-	30	mA	

INPUT CHARACTERISTICS

TABLE 3.0

PARAMETER						
Enable Voltage	(Vih)	= 70% Vdd	-	-	Vdc	2
Disable Voltage	(Vil)	-	-	= 30% Vdd	Vdc	
Enable Time		-	-	10	mS	
Disable Time		-	-	150	nS	
Output Disable Current	(Icc)	-	-	10	uA	

HCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	2.91	-	-	Vdc	
(Low)	(Vol)	-	-	0.33	Vdc	
Current (High)	(Ioh)	-4	-	-	mA	
(Low)	(Iol)	-	-	4	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	3	nS	
Start-Up Time		-	-	10	mS	
Jitter (12 KHz to 20 MHz)		-	-	1	pS RMS	
Jitter (10 Hz to 20 MHz)		-	-	5	pS RMS	

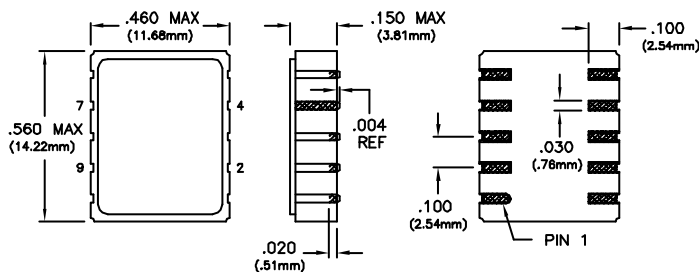
PACKAGE CHARACTERISTICS

TABLE 5.0

Package	Hermetically sealed ceramic package and metal cover
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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.
- Oscillator output is enabled with no connection on pad 2



Pad	Connection
1	N/C
2	Enable/Disable
3	N/C
4	Ground
5	N/C
6	N/C
7	Output
8	N/C
9	Vcc
10	N/C

Dimensional Tolerance: ±.005 (.127mm)

DESCRIPTION

The Connor-Winfield SMH54RA is a Surface Mount, Fixed Frequency Crystal Controlled Oscillator (XO) with Enable/Disable function. The SMH54RA is designed for use in all applications requiring a precision clock. The surface mount package is designed for high-density mounting and is optimum for mass production.

FEATURES

- 1.0 to 70 MHz
- 3.3V OPERATION
- TRI-STATE ENABLE / DISABLE FUNCTION
- POWER SAVING FUNCTION: 10uA WHEN DISABLED
- OVERALL FREQUENCY TOLERANCE ±20ppm
- TEMPERATURE RANGE: 0 to 70°C
- CERAMIC SURFACE MOUNT PACKAGE
- TAPE AND REEL PACKAGING

ORDERING INFORMATION

SMH54RA - 20.00 MHz



Specifications subject to change without notice.