

CRYSTAL CONTROLLED OSCILLATORS

3.3V SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR



ASM51AA, ASM52AA
ASM53AA, ASM54AA

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:

TABLE 2.0

MODEL ASM54AA

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	13	-	80	MHz	
Frequency Tolerance:		-20	-	20	ppm	1

MODEL ASM51AA

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	13	-	80	MHz	
Frequency Tolerance:		-25	-	25	ppm	1

MODEL ASM52AA

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	13	-	80	MHz	
Frequency Tolerance:		-50	-	50	ppm	1

MODEL ASM53AA

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	13	-	80	MHz	
Frequency Tolerance:		-100	-	100	ppm	1

OPERATING SPECIFICATIONS

TABLE 3.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vdd)	2.97	3.3	3.63	Vdc	
Supply Current	(Icc)	-	10	50	mA	

ACMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	50	pF	
Voltage (High)	(Voh)	Vcc - 0.5	-	-	Vdc	
(Low)	(Vol)	-	-	0.44	Vdc	
Current (High)	(Ioh)	-24	-	-	mA	
(Low)	(Iol)	-	-	24	mA	
Duty Cycle at 2V		45	50	55	%	
Rise / Fall Time 10% to 90%		-	1	3	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 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.

DESCRIPTION

The Connor-Winfield models ASM51AA, ASM52AA, ASM53AA and ASM54AA are 3.3V acmos, Surface Mount, Fixed Frequency Crystal Oscillators (XO) designed for use in all applications requiring precision clocks.

FEATURES

13 to 80 MHz

3.3V OPERATION

OVERALL FREQUENCY TOLERANCE:

- ASM54AA ±20ppm
- ASM51AA ±25ppm
- ASM52AA ±50ppm
- ASM53AA ±100ppm

TEMPERATURE RANGE: 0° to 70°C

CERAMIC SURFACE MOUNT PACKAGE

TAPE AND REEL PACKAGING

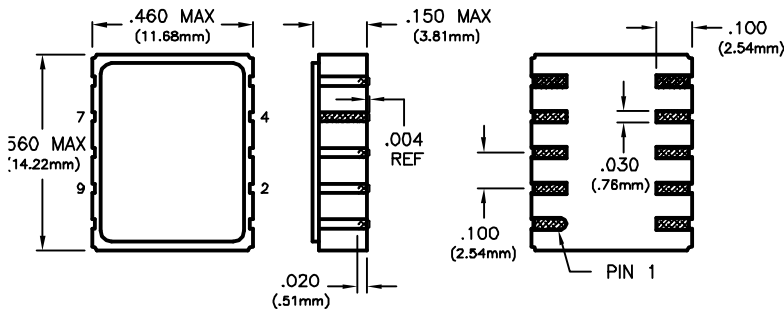
ORDERING INFORMATION

ASM51AA - 51.84MHz



Specifications subject to change without notice.

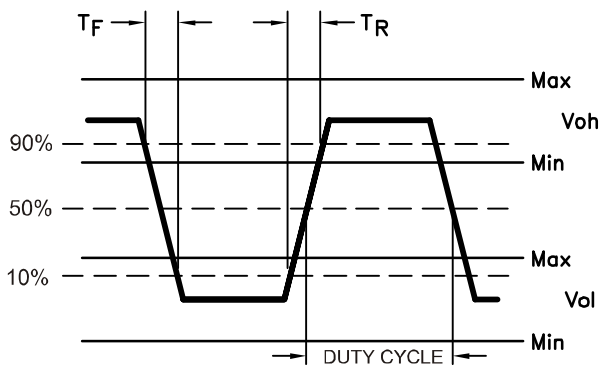
CRYSTAL CONTROLLED OSCILLATORS



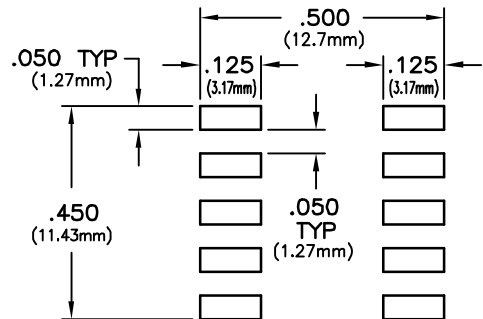
Dimensional Tolerance: $\pm .02^*$
 $\pm .005^*$

PIN	CONNECTION
1	N/C
2	N/C
3	N/C
4	GROUND
5	N/C
6	N/C
7	OUTPUT
8	N/C
9	Vcc
10	N/C

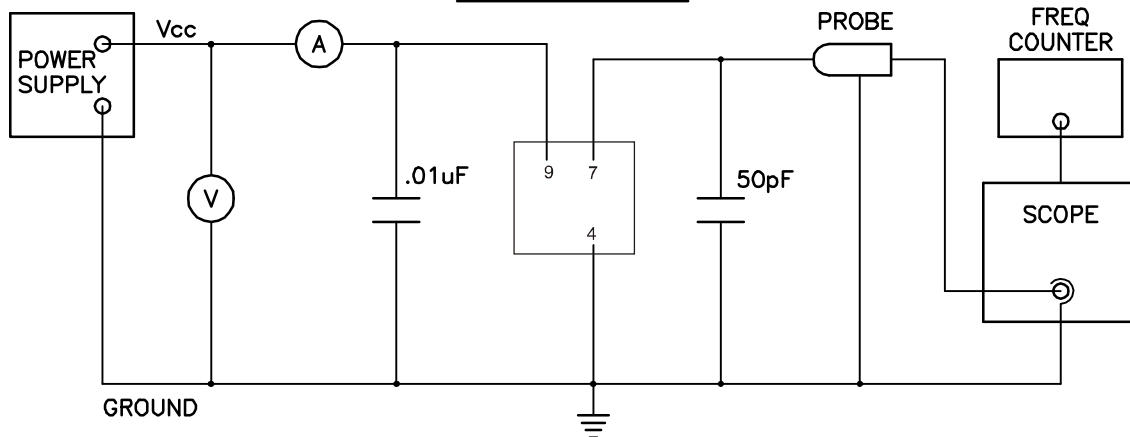
OUTPUT WAVEFORM



SUGGESTED PAD LAYOUT



TEST CIRCUIT



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