

PROGRAMMABLE CRYSTAL OSCILLATOR

AP3S



RoHS
Compliant



3.2 x 2.5 x 1.1mm

FEATURES:

- Performance comparable to fixed frequency oscillator
- Lowest peak-to-peak jitter
- Low supply current
- Short lead time
- Suitable for mass production
- Alternative to long lead-time XO's

For Small
Quantities,
Delivery Time
is 1-5 days

ELECTRICAL SPECIFICATIONS:

3.3V, 2.5V, 1.8V OPERATION					
Characteristics	Unit	Minimum	Typical	Maximum	
Frequency Range	3.3V	MHz	0.8	--	110
	2.5V	MHz	0.8	--	90
	1.8V	MHz	0.8	--	75
Operation Temp. Range * (See Options)	°C	-10	--	60	
Frequency Stability Over Operating Temp * (See Options)	ppm	-100	--	100	
Input Voltage (Operating Vdd)	3.3V	V	2.97	3.3	3.63
	2.5V	V	2.25	2.5	2.75
	1.8V	V	1.62	1.8	1.98
Input Current	3.3V	mA	--	--	25
	2.5V	mA	--	--	15
	1.8V	mA	--	--	10
Output Type	CMOS				
Output Load	pF	--	15	--	
	V	--	--	3.3V = 0.33, 2.5V = 0.25, 1.8V = 0.18	
"0" level	V	3.3V = 2.97, 2.5V = 2.25, 1.8V = 1.62			--
"1" level	V	3.3V = 2.97, 2.5V = 2.25, 1.8V = 1.62			--
Symmetry	%	45	50	55	
Standby Current	µA	--	--	10	
Rise Time (10%→90% Vdd)	nSec	--	2.5	--	
Fall Time (90%→10% Vdd)	nSec	--	2.5	--	
Tri-state Function (Input to pin 1)	pin 1 : High or Open , pin 3 : Enable				
	pin 1 : Low , pin 3 : Disable				
Jitter peak-to-peak**	pSec	--	30 to 70	--	

* Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, aging, shock, and vibration

** Jitter performance depends on programming parameter and output frequency. Please contact ABRACON for additional info.

OPTIONS & PART IDENTIFICATION:

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AP3S□-Frequency-□-□-□-□

Supply Voltage		Operating Temp.		Freq. Stability		PIN 1 (Option)		Packaging	
Blank*	3.3 V	I	0°C to +50°C	Y(*)	±10ppm	**Blank	OE	B	Bulk
1	2.5 V	D	-10°C to +60°C	J(**)	±20ppm	**B	PDB	T	Tape and Reel
2	1.8 V	E	-20°C to +70°C	R	±25ppm	Ask for Tube Package			
*3.3V : Standard									
		F	-30°C to +70°C	K	±30ppm				
		N	-30°C to +85°C	H	±35ppm				
		L	-40°C to +85°C	B	±40ppm				
				C	±50ppm				

* Available for 0°C to +50°C and -10°C to +60°C only.

** Contact ABRACON for -40°C to +85°C.

OE: Tri-state the output buffer.

** PDB: Tri-state the output buffer and shut off the oscillator, <10µA when PDB enabled.

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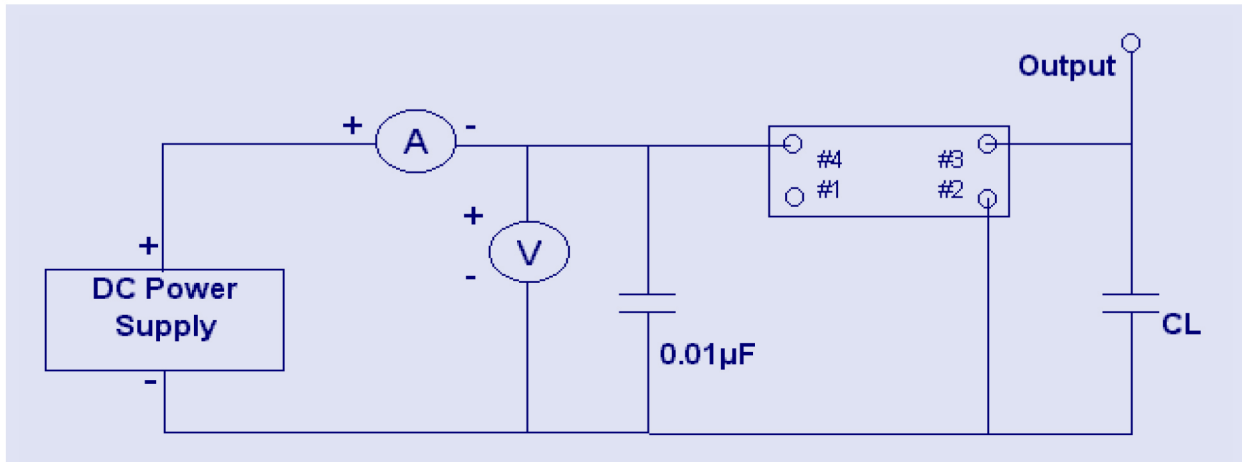


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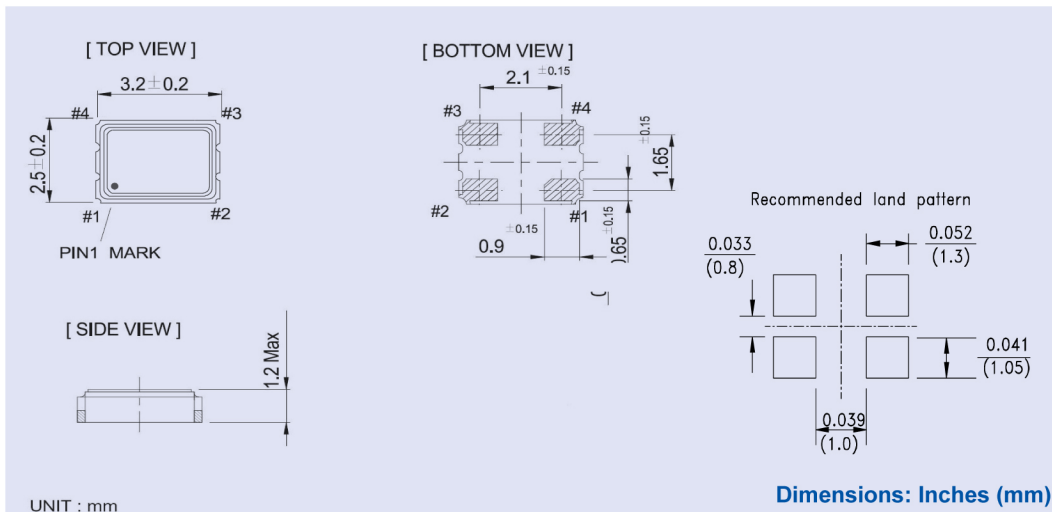


3.2 x 2.5 x 1.1mm

TEST CIRCUIT:



OUTLINE DRAWING:



PIN	CONNECTION
# 1	STAND-BY / OE
# 2	GND/CASE
# 3	OUTPUT
# 4	VDD

Note: It is recommended to use an approximately 0.01µF bypass capacitor between PIN 2 and 4.

TAPE & REEL:

