

PROGRAMMABLE CRYSTAL OSCILLATOR



2.5 x 2.0 x 0.9mm

AP2S



RoHS
Compliant

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	1	--	110
2.5V	MHz	1	--	90
1.8V	MHz	1	--	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
	2.5V	V	2.25	2.5
	1.8V	V	1.62	1.8
Input Current	3.3V	mA	--	25
	2.5V	mA	--	15
	1.8V	mA	--	10
Output Type	CMOS			
Output Load	pF	--	15	--
"0" level	V	--	--	3.3V = 0.33, 2.5V = 0.25, 1.8V = 0.18
"1" level	V	3.3V = 2.97, 2.5V = 2.25, 1.8V = 1.62		--
Symmetry	%	45	50	55
Standby Current	uA	--	--	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:

[Left blank if standard]

AP2S□-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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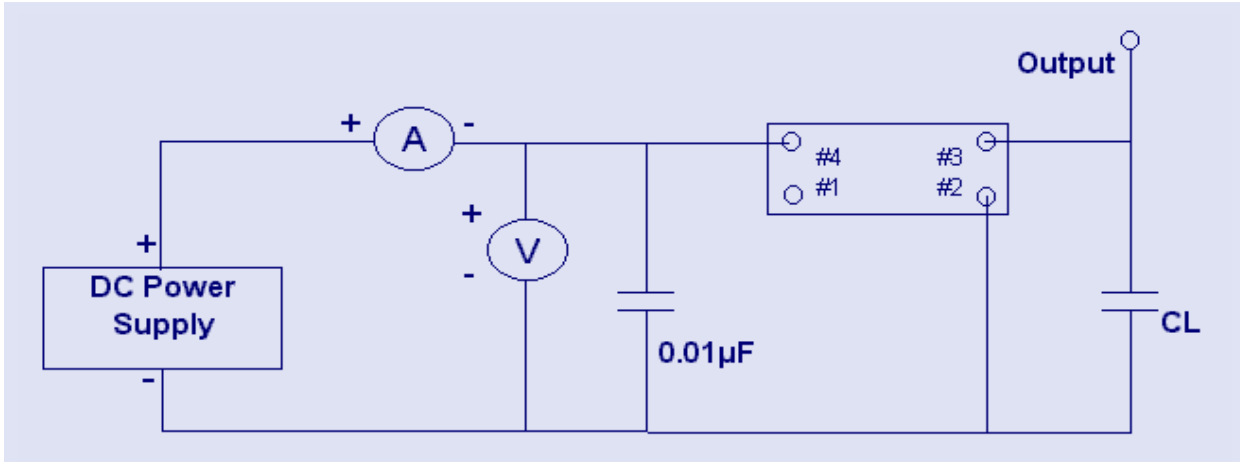
2.5 x 2.0 x 0.9mm

AP2S

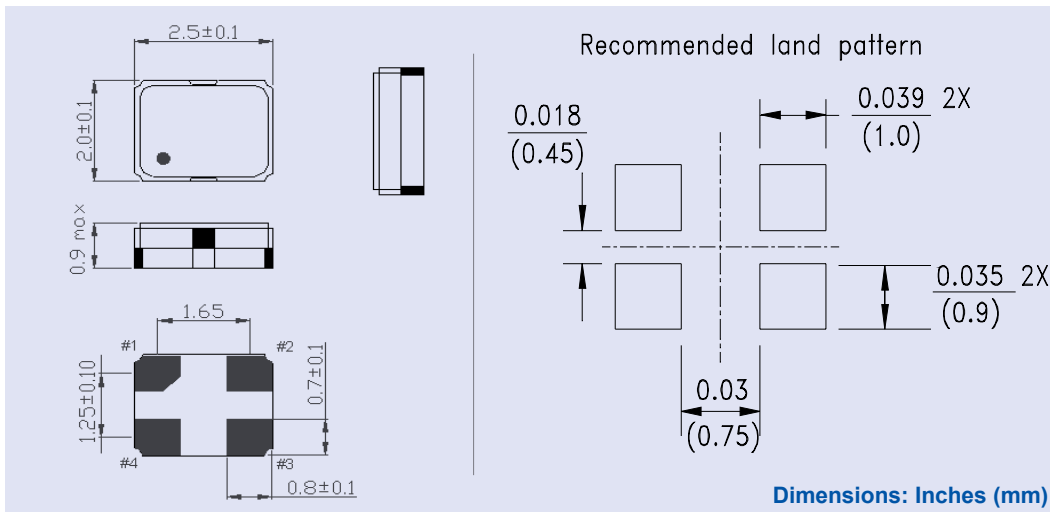


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TEST CIRCUIT:



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:

