

2.5V / 3.3Vdc PROGRAMMABLE SPREAD SPECTRUM LOW EMI CLOCK OSCILLATOR



7.0 x 5.0 x 1.4 mm

ASSVP SERIES



RoHS
Compliant

FEATURES:

- Spread Spectrum LOW EMI Oscillator
- 7.0x5.0x1.4 Ceramic package
- Tri-state function
- IR-Reflow capable
- Low power consumption
- Seam sealed package with high reliability
- RoHS compliant

APPLICATIONS:

- Laptop computer
- PDA
- LCD
- Digital camera
- Wireless LAN
- Mobile phone
- Printer
- Flat TV

Quick Turn Delivery!
<5 days for
small quantities

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N	ASSVP Series
Frequency range:	13.000000MHz - 160.000000MHz
Spread type:	Center Spread: ±0.125% to ±2.00% Down Spread: -0.25% to -4.00% (see Table 3 for options)
EMI reduction (Reduction is applied to the entire frequency spectrum)	-7dBc min. 100MHz at C02 -9dBc min. 100MHz at C04 -15dBc min. 100MHz at C12 With respect to the dB level when no modulation.
Operating temperature:	-40°C to + 85°C
Storage temperature:	-55°C to + 125°C
Frequency stability:	±50ppm (see options) *
Supply voltage (Vdd):	2.5, or 3.3 V ± 10% (see options)
Start-up time:	2ms typ. 10ms max.
Rise time / fall time	See table 1 or 2 below
Load:	15pF (50pF max)
Current consumption:	See table 1 or 2 below
Duty cycle:	50% ± 5% (C_L = 15pF at 50% V_{DD})
Output type:	CMOS
Aging (First year):	±3ppm max.; Ta=+25°C
Output Voltage "High" ; "1":	2.0V min.; 3.2V typ (at 90% V_{DD})
Output Voltage "Low" ; "0":	0.8V max. ; 0.2V typ (at 10% V_{DD})
Modulation carrier frequency (Dither rate):	Programmable dependant (15kHz to 120kHz)
Tri-state function :	Logic "1" or open: Oscillation Logic "0" (VIL < 0.8 Vdc) : Hi Z

* Frequency stability includes initial tolerance, temperature characteristics, load variation, and supply voltage variation.

Table 1: 2.5V

Frequency	Current consumption (mA)		Tr/Tf (nsec)	
	Typical	Max	Typical	Max
13 to 49.99MHz	10	20	2.0	5.0
50 to 79.99MHz	15	20	2.0	4.0
80 to 99.99MHz	20	25	1.5	3.0
100 to 160MHz	25	30	1.5	3.0

Table 2: 3.3V

Frequency	Current consumption (mA)		Tr/Tf (nsec)	
	Typical	Max	Typical	Max
13 to 49.99MHz	15	20	3.0	10.0
50 to 79.99MHz	20	25	2.5	8.0
80 to 99.99MHz	25	30	2.0	5.0
100 to 160MHz	30	40	1.5	4.0





7.0 x 5.0 x 1.4 mm

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➤ **OPTIONS & PART IDENTIFICATION:**

(Left blank if standard)

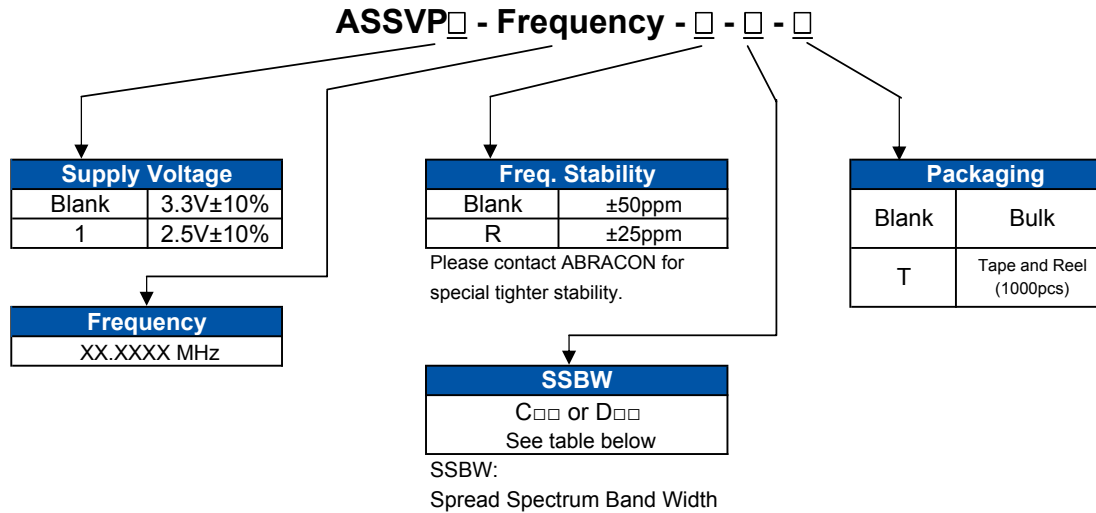


Table 3: SPREAD SPECTRUM BANDWIDTH SELECTION TABLE

SPREAD SPECTRUM BAND WIDTH OPTIONS			
Center Spread (%)		Down Spread (%)	
C01	±0.125	D01	-0.25
C02	±0.250	D02	-0.50
C03	±0.375	D03	-0.75
C04	±0.50	D04	-1.00
C05	±0.675	D05	-1.25
C06	±0.750	D06	-1.50
C07	±0.875	D07	-1.75
C08	±1.000	D08	-2.00
C09	±1.125	D09	-2.25
C10	±1.250	D10	-2.50
C11	±1.375	D11	-2.75
C12	±1.500	D12	-3.00
C13	±1.675	D13	-3.25
C14	±1.750	D14	-3.50
C15	±1.875	D15	-3.75
C16	±2.000	D16	-4.00

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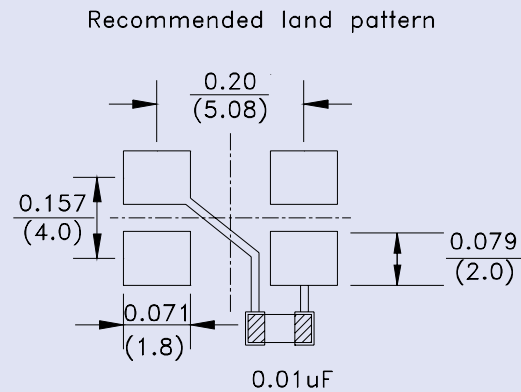
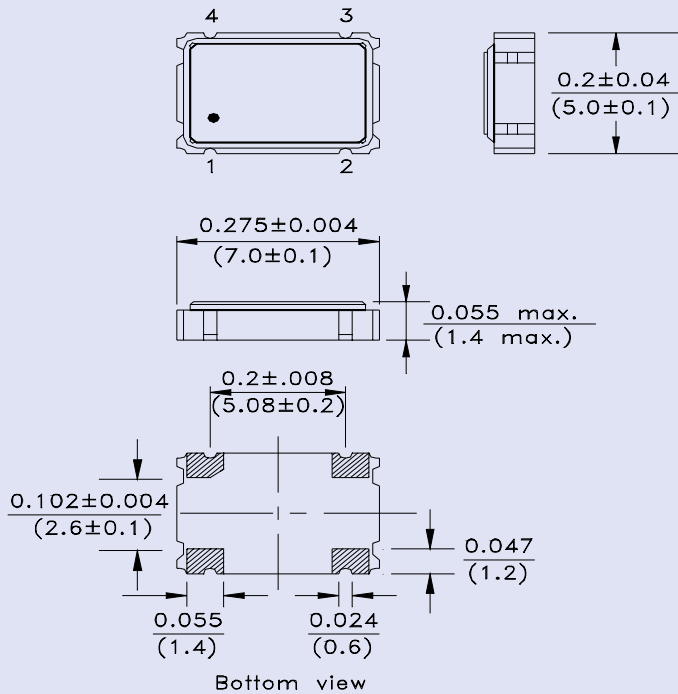


7.0 x 5.0 x 1.4 mm

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OUTLINE DRAWING:

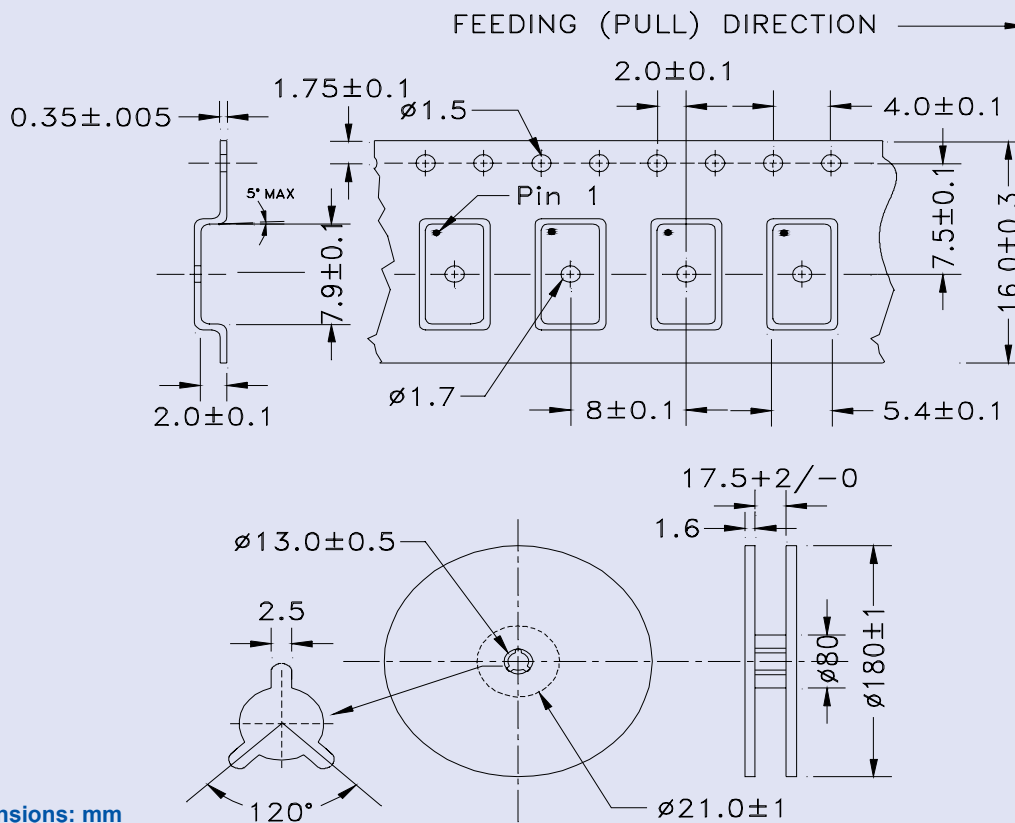


PIN	FUNCTION
1	Tri-state
2	GND/Case
3	Output
4	Vdd

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Dimensions: Inches (mm)

TAPE & REEL: Tape and reel 1,000pcs/reel



Dimensions: mm

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED



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