

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

ASSVP SERIES



RoHS
Compliant



7.0 x 5.0 x 1.4mm

FEATURES:

- Spread Spectrum LOW EMI Oscillator
- 7.0 x 5.0 x 1.4mm Ceramic package
- Tri-state function
- Suitable for RoHS reflow profile
- Seam sealed ceramic package assures high reliability.

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:	10.000000MHz - 160.000000MHz
Spread type (Typical):	Center Spread: $\pm 0.125\%$ to $\pm 2.00\%$ 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 -12dBc min. 100MHz at C12 With respect to the dB level when no modulation.
Operating temperature:	-40°C to $+85^{\circ}\text{C}$
Storage temperature:	-55°C to $+125^{\circ}\text{C}$
Frequency stability:	$\pm 50\text{ppm}$ (see options) *
Supply voltage (Vdd):	2.5, or 3.3 V $\pm 10\%$ (see options)
Start-up time:	2ms typ. 10ms max.
Rise time / fall time	See table 1 or 2 below
Load:	15pF (30pF max)
Current consumption:	See table 1 or 2 below
Duty cycle:	$50\% \pm 5\%$ ($C_L = 15\text{pF}$ at $50\% V_{DD}$)
Output type:	CMOS
Aging (First year)	$\pm 3\text{ppm max.}$; $T_a = +25^{\circ}\text{C}$
Output Voltage "High" ; "1":	$90\% V_{DD}$ min.
Output Voltage "Low" ; "0":	$10\% V_{DD}$ max.
Modulation carrier frequency (Dither rate):	Programmable dependant (30kHz to 40kHz)
Tri-state function :	Logic "1" or open: Oscillation Logic "0" ($V_{IL} < 0.8 \text{Vdc}$) : 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
10 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
10 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

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OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

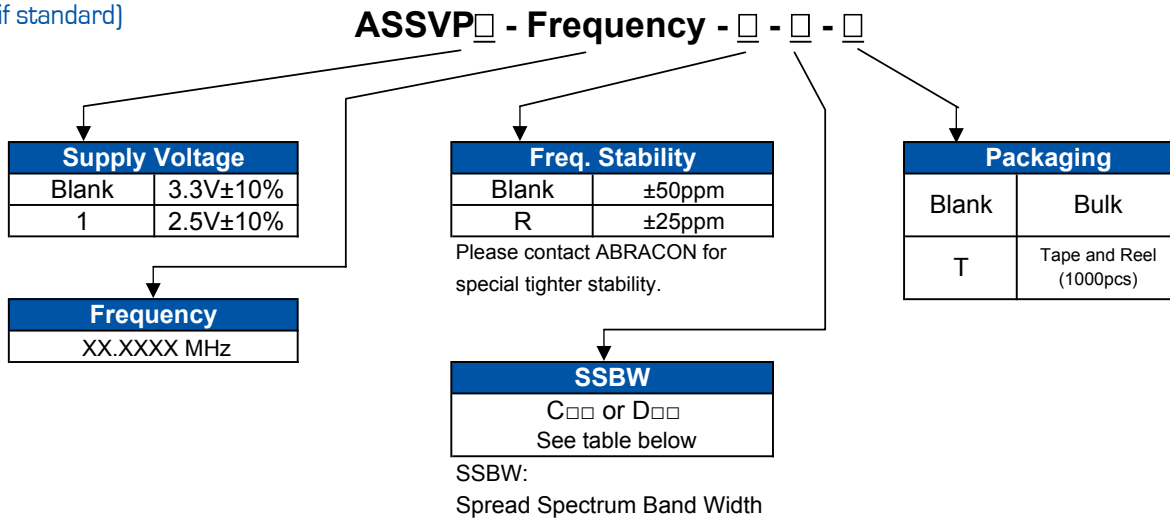


Table 3: SPREAD SPECTRUM BANDWIDTH SELECTION TABLE

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	±0.625	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	±1.625	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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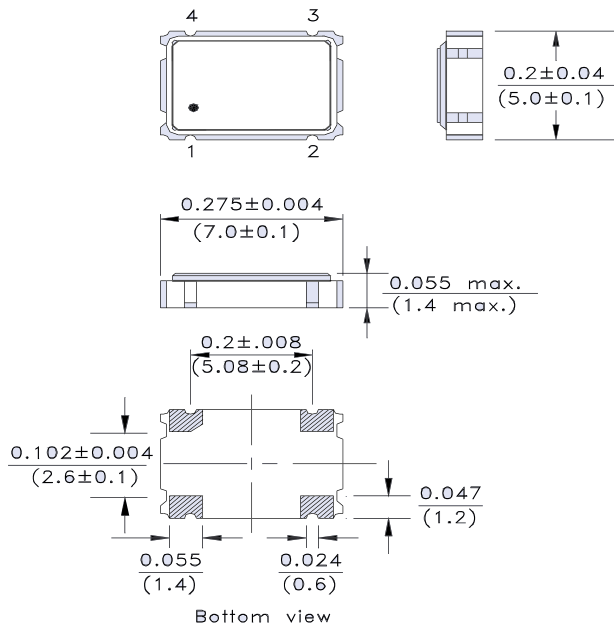


7.0 x 5.0 x 1.4 mm

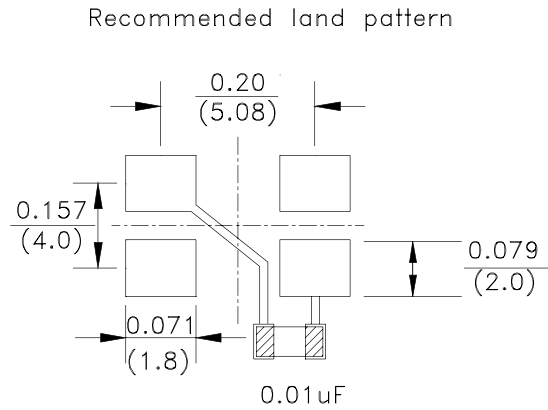
ASSVP SERIES



OUTLINE DRAWING:



Dimensions: Inches (mm)

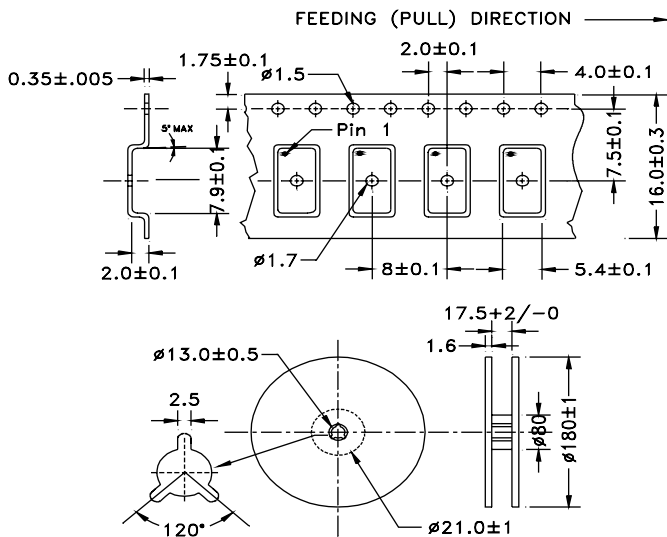


PIN	FUNCTION
1	Tri-state
2	GND/Case
3	Output
4	Vdd

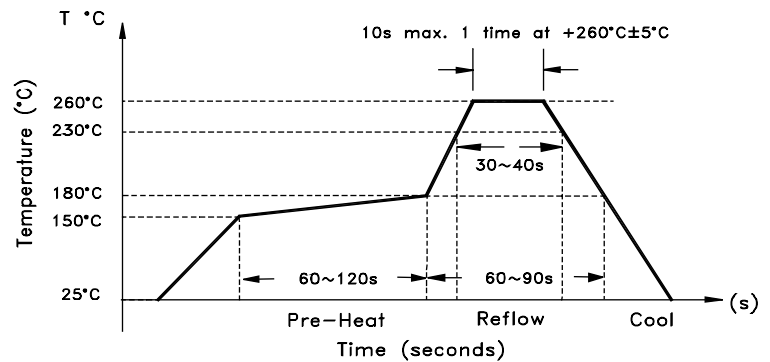
Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

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

REFLOW PROFILE



Dimensions: mm



Need a test socket for the ASSVP Series?
To view compatible **PRECISION TEST** and **BURN-IN SOCKETS** for these parts, [click here](#).

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