3.3Vdc HCMOS/TTL SMD CRYSTAL CLOCK OSCILLATOR

ASV SERIES

7.0 x 5.0 x 1.8mm

Pb RoHS Compliant

FEATURES:

- Low profile, Leadless Chip Carrier (LCC)
- HCMOS/TTL Compatible, 3.3Vdc, 2.5Vdc, & 1.8Vdc options
- Reflow capable, Seam Sealed Package

APPLICATIONS:

- Clock signaling for µProcessors, PC Motherboards & Graphic Cards
- High output drive capability (up to 50pf)

STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ASV Series
Frequency Range	312 kHz to 200 MHz
Operating Temperature	-10° C to + 70° C (see options)
Storage Temperature	- 55° C to + 125° C
Overall Frequency Stability	± 100 ppm max. (see options)
Supply Voltage (Vdd)	3.3 Vdc ± 10% (see options)
Input Current	See Table 1
Symmetry	40/60 % max.@ 1/2Vdd (see options)
Rise time / Fall time (Tr/Tf)	See Table 1
Output Load	15pF (10TTL) (see options)
Output Voltage	VOH = 0.9 * Vdd min.; VOL = 0.4 Vdc max.
Start-up Time	10ms max.
Tristate Function (see Tri-state option)	"1" (VIH >= 0.7*Vdd) or open: Oscillation "0" (VIL < 0.3*Vdd) : Hi Z
Disable Current (with Power Down)	10µA max.
Disable Current (without Power Down)	200µA (Option A)
Enable Time (with Power Down)	400ms max.
Enable Time (without Power Down)	100ns (Option A)
Disable Time (with Power Down)	100ns
Disable Time (without Power Down)	100ns (Option A)
Aging at 25°C/year	± 5 ppm max.
Period Jitter one sigma	1 to 5ps typ. (frequency dependent)

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Table 1

Frequency	Idd (max)	Tr/Tf (max)
0 ~ 20.0MHz	20mA	10ns
20.01 ~ 50.0MHz	45mA	7ns
50.01~70.0MHz	50mA	7ns
70.01 ~ 100.0MHz	55mA	7ns
100.01 ~ 165.0MHz	65mA	5ns

Please contact Abracon for higher frequencies

OPTIONS & PART IDENTIFICATION:

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ASV -□□ - Frequency - □ - □ - □ - □□ - □ - □

Supply Voltage	
Blank	3.3V
25	2.5V
18	1.8V

Frequency
XX.XXXXMHz

Operating Temp.	
I	0°C to +50°C
D	-10°C to +60°C
E	-20°C to +70°C
F	-30°C to +70°C
N	-30°C to +85°C
L	-40°C to +85°C

Freq. Stability	
J*	± 20 ppm
R	± 25 ppm
K	± 30 ppm
H	± 35 ppm
C	± 50 ppm

* Temp options I, D, and E only

Packaging	
Blank	Bulk
T	Tape & Reel (1k)

Tri-state	
Blank	Tri-state with PD
A	Tri-state

PD: Power Down

Output Load	
Blank	15pF
50	50pF

Symmetry	
S	45/55% @ 1/2Vdd

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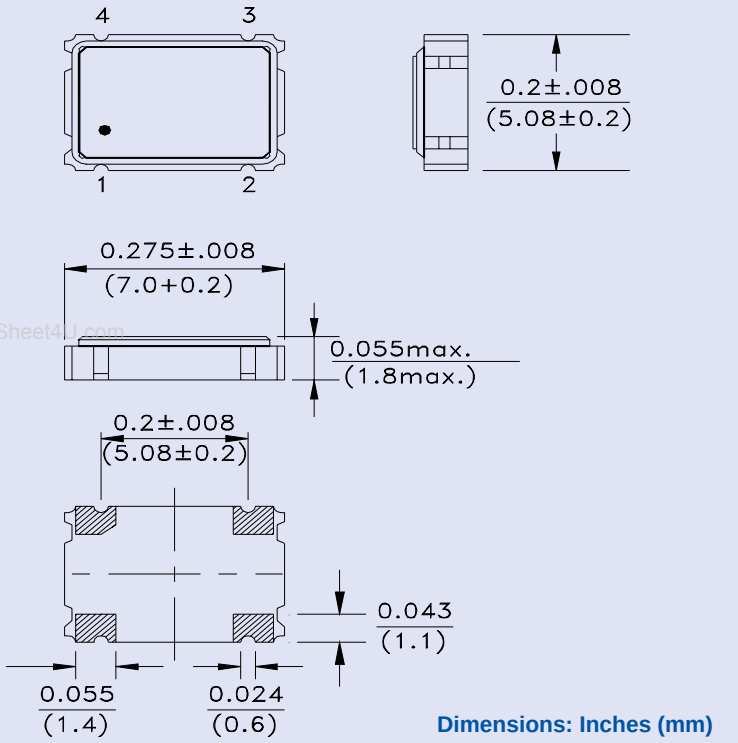
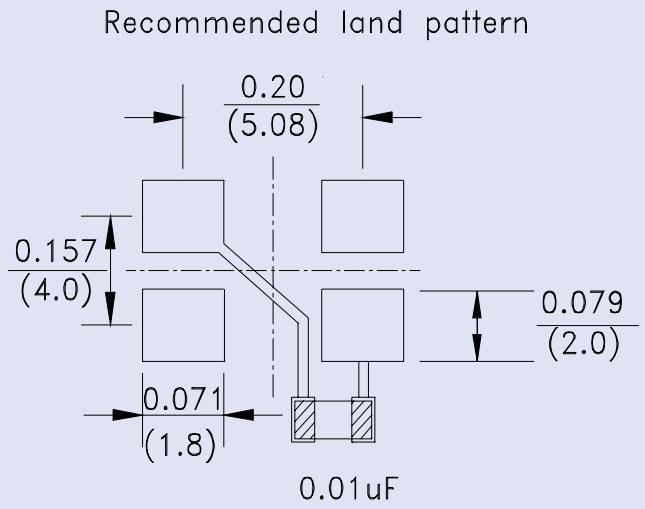
OUTLINE DRAWING:



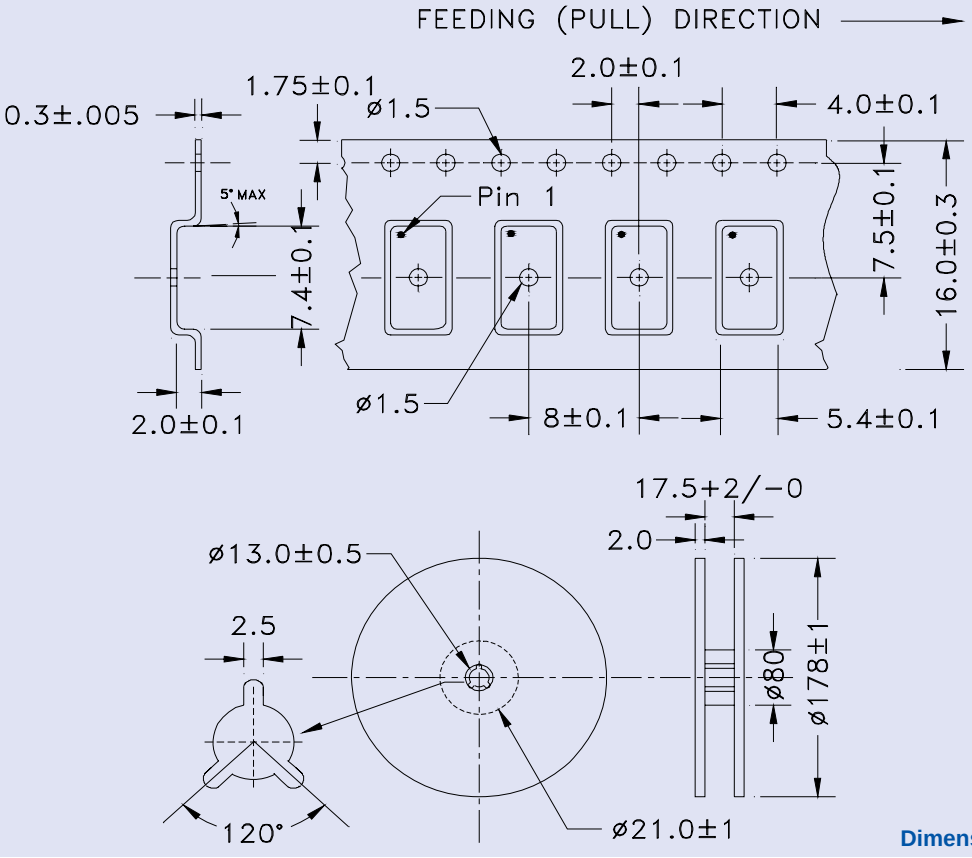
Dimensions: Inches (mm)



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

PIN	FUNCTION
1	Tristate Enable/Disable
2	GND/Case
3	Output
4	Vdd

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



Dimensions: mm

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