

# 3.3Vdc HCMOS/TTL SMD CRYSTAL CLOCK OSCILLATOR



7.0 x 5.0 x 1.8mm

ASV SERIES



## FEATURES:

- HCMOS/TTL Compatible, 3.3Vdc, 2.5Vdc, & 1.8Vdc options
- Reflow capable, Seam Sealed Package

## APPLICATIONS:

- Clock signaling for  $\mu$ Processors, 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	$\pm 100$ ppm max. (see options)
Supply Voltage (Vdd)	3.3 Vdc $\pm 10\%$ (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	See Table 1
Tristate Function (see Tri-state option)	"1" (VIH $\geq 0.7 \cdot V_{dd}$ ) or open: Oscillation "0" (VIL $< 0.3 \cdot V_{dd}$ ): Hi Z
Disable Current (with Power Down)	10 $\mu$ A max.
Disable Current (without Power Down)	200 $\mu$ A (Option A)
Enable Time (with Power Down)	3.5ms Typ, 5ms max.
Enable Time (without Power Down)	100ns (Option A)
Disable Time (with Power Down)	100ns max.
Disable Time (without Power Down)	100ns max. (Option A)
Aging at 25°C/year	$\pm 5$ ppm max.
Period Jitter one sigma	See Table 1

Table 1 (Typical value is for only reference.)

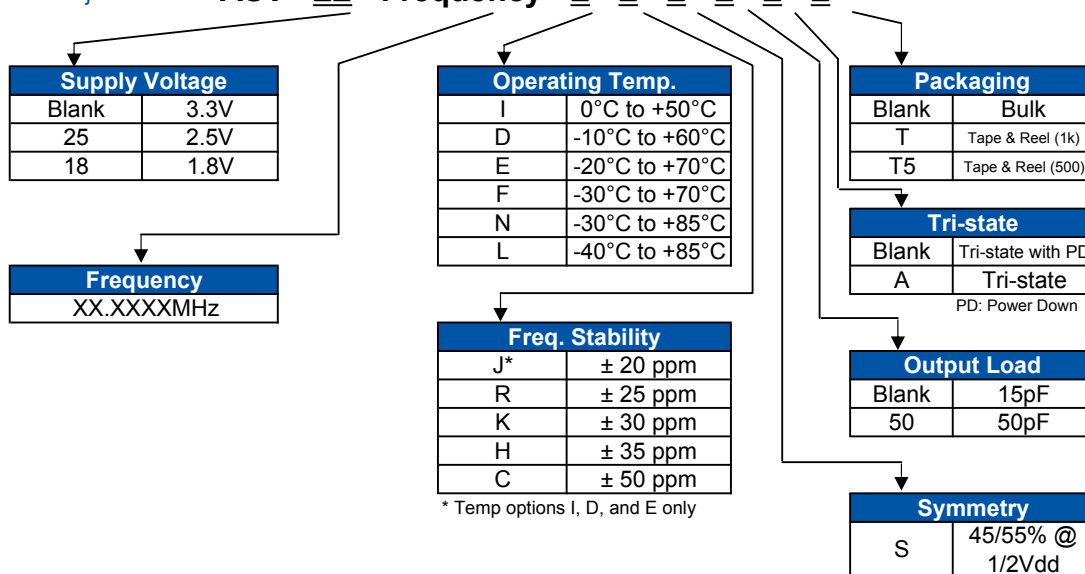
Frequency (MHz)	I <sub>dd</sub> (Typ) (mA)	I <sub>dd</sub> (Max) (mA)	Tr/Tf (Typ) (ns)	Tr/Tf (max) (ns)	Start-up time (Typ) (ms)	Start-up time (Max) (ms)	Period Jitter RMS (Typical) (ps)
0.5-14.9	2.0	10.0	3.0	5.0	0.4	4.0	2.5
15.0-29.9	3.6	15.0	2.8	4.0	0.4	4.0	3.2
30.0-39.9	5.6	20.0	2.6	4.0	2.0	4.0	3.2
40.0-49.9	7.2	25.0	2.4	4.0	1.5	4.0	3.2
50.0-59.9	13.3	30.0	2.2	4.0	2.9	5.0	3.2
60.0-79.9	19.0	35.0	2.2	4.0	1.5	5.0	3.2
80.0-99.9	20.2	45.0	2.0	4.0	1.3	5.0	3.0
100.0-125.0	23.7	50.0	1.8	4.0	1.8	5.0	2.9
125.1-165.0	27.2	65.0	1.5	4.0	2.7	5.0	2.9

Contact Abracon for higher frequencies

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

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



# 3.3Vdc HCMOS/TTL SMD CRYSTAL CLOCK OSCILLATOR

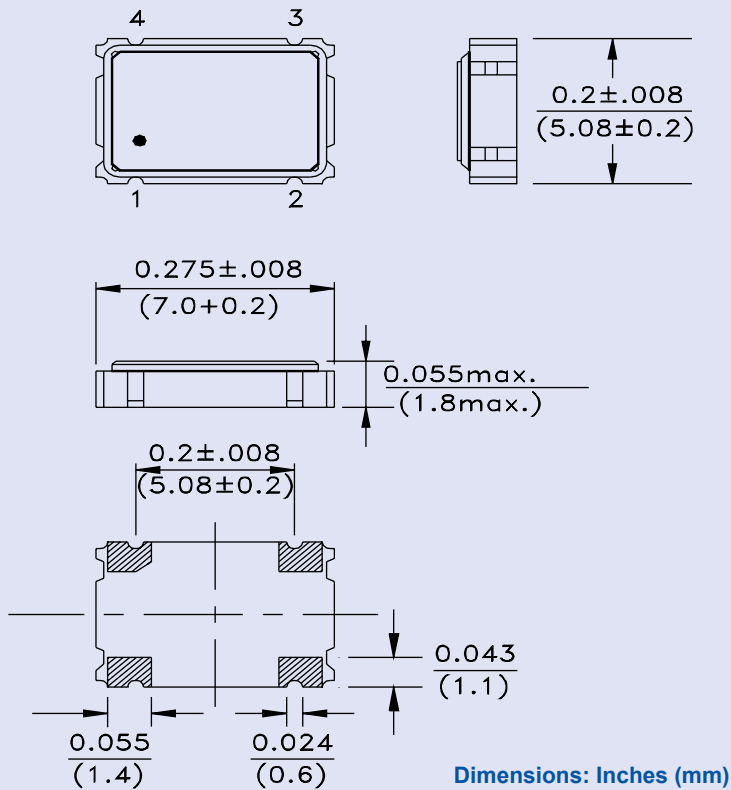


7.0 x 5.0 x 1.8mm

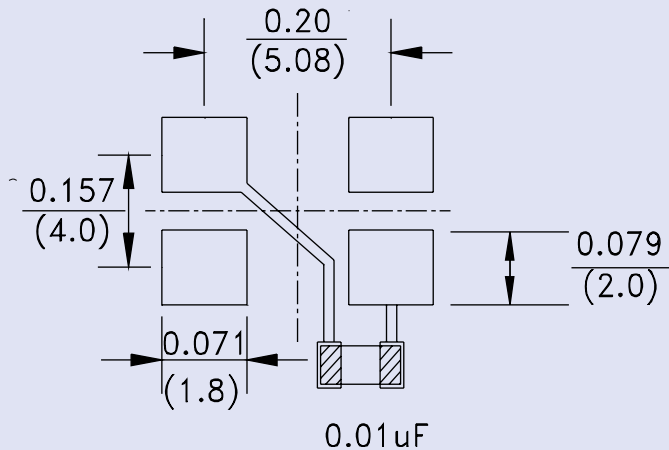
ASV SERIES



## OUTLINE DRAWING:



## Recommended land pattern

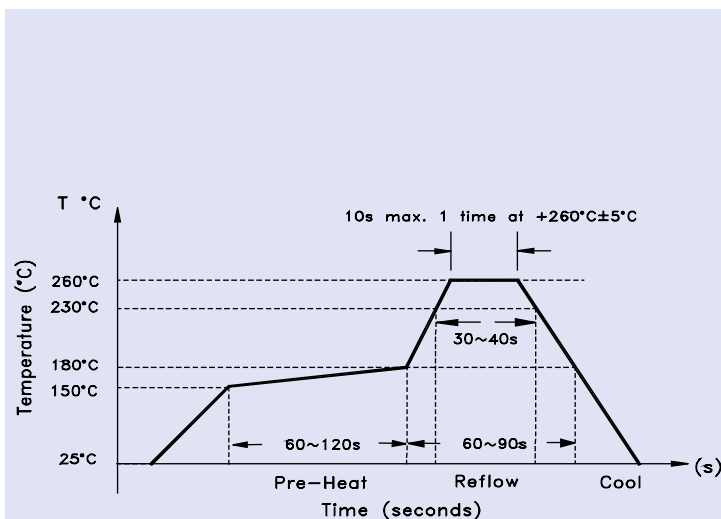
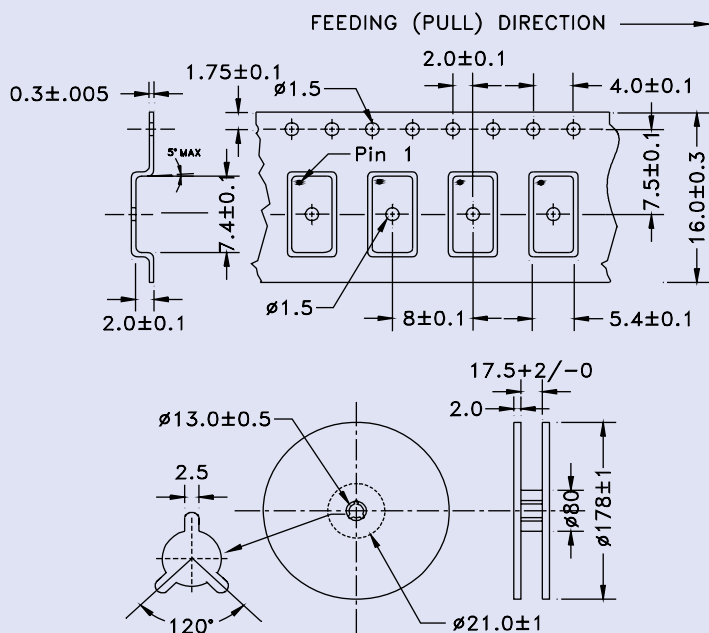


**Note:** It is recommended to use an approximately 0.01uF bypass capacitor between PIN 2 and 4.

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

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

## REFLOW PROFILE:



Need a test socket for the ABL series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, click here.

**NOTE:** Abracon manufactured products are intended for general commercial and industrial use. For applications requiring high reliability and/or presenting extreme operating environment, written consent & authorization from Abracon is required.

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 08.31.09**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)