

3.3Vdc HCMOS/SMD CRYSTAL CLOCK OSCILLATOR



ASV

7.0 x 5.0 x 1.8mm

ASV SERIES



RoHS
Compliant

FEATURES:

- HCMOS/Compatible, 3.3Vdc, 2.5Vdc, & 1.8Vdc options
- Suitable for RoHS reflow
- Seam sealed package assures high reliability
- High output drive capability (up to 50pF)

APPLICATIONS:

- Clock signaling for μ Processors, PC Motherboards & Graphic Cards

STANDARD SPECIFICATIONS:

PARAMETERS

| | |
|--|---|
| ABRACON P/N | ASV Series |
| Frequency Range | 0.312MHz to 165 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*Vdd) or open: Oscillation "0" (VIL < 0.3*Vdd) : Hi Z |
| Disable Current (with Power Down) | 10 μ A max. |
| Disable Current (without Power Down) | 200 μ 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 (firstyear) : | \pm 5ppm max. |
| Period Jitter one sigma | See Table 1 |

Table 1 (Typical value is for only reference.)

| Frequency (MHz) | I _{dd} (Typ) (mA) | I _{dd} (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 - - MHz - - - -

| P/N and Vdd (V) |
|----------------------|
| Blank: 3.3 \pm 10% |
| 25: 2.5 \pm 10% |
| 18: 1.8 \pm 10% |

| Frequency in MHz |
|------------------|
| e.g. 0.312MHz |
| 14.31818MHz |
| 26.000MHz |
| 200.000MHz |

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

| Freq. Stability |
|--------------------|
| J: \pm 20 ppm(*) |
| R: \pm 25 ppm |
| K: \pm 30 ppm |
| H: \pm 35 ppm |
| C: \pm 50 ppm |

(*) Temp option I, D, E, and -10°C ~ +70°C only.

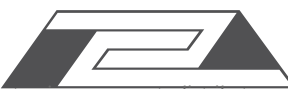
| Output Load |
|-------------|
| Blank: 15pF |
| 50: 50pF |

| Symmetry |
|-----------------------|
| Blank: 40/60% @1/2Vdd |
| S: 45/55% @1/2Vdd |

| Packaging |
|--------------------------|
| Blank: Bulk |
| T: Tape & Reel (1kpcs) |
| T5: Tape & Reel (500pcs) |

| Tri-state |
|--------------------------|
| Blank: Tri-state with PD |
| A: Tri-state |

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 07.06.10**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

3.3Vdc HCMOS/SMD CRYSTAL CLOCK OSCILLATOR



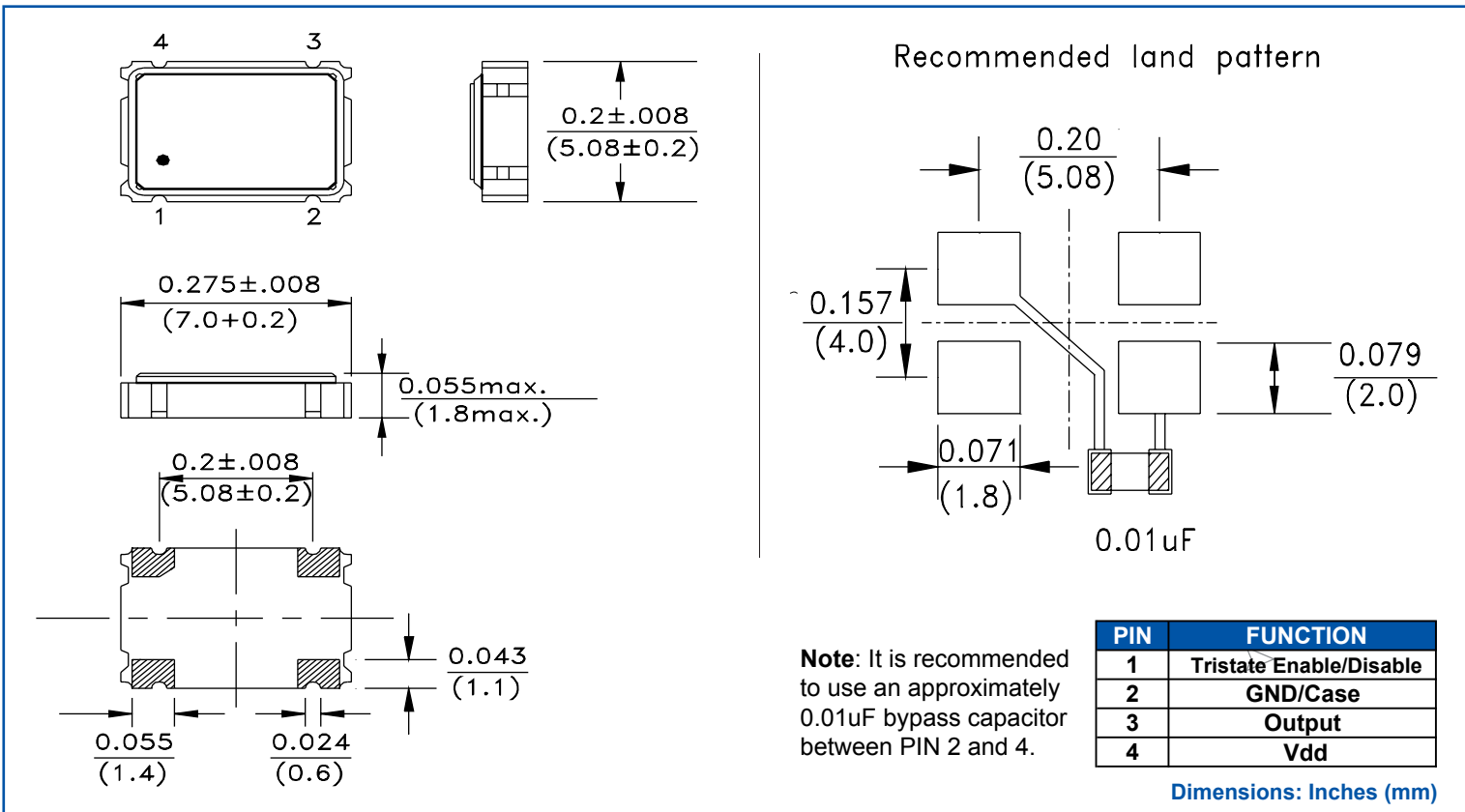
7.0 x 5.0 x 1.8mm

ASV SERIES

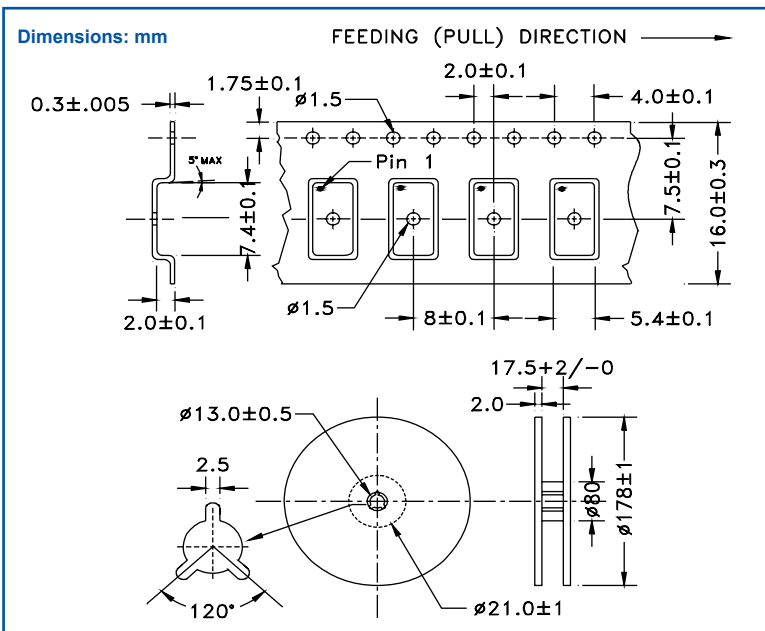


RoHS
Compliant

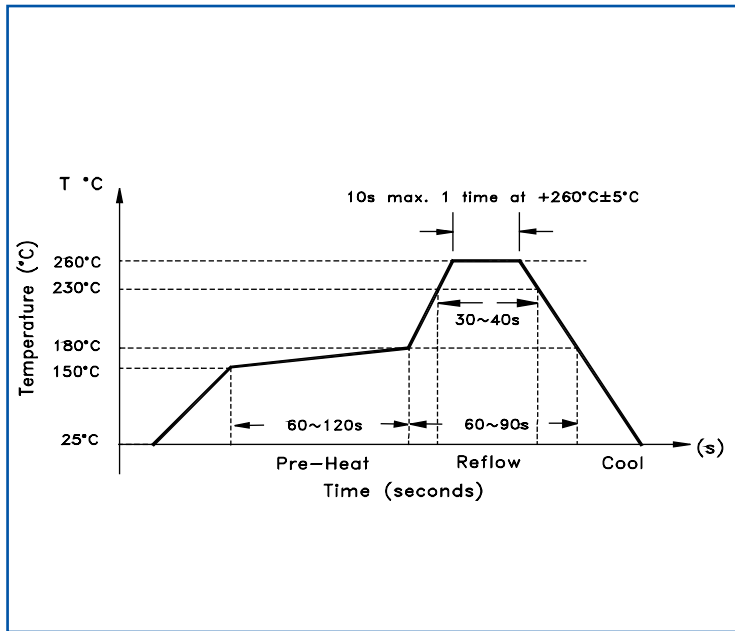
OUTLINE DRAWING:



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



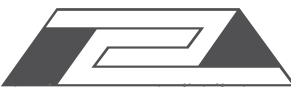
REFLOW PROFILE:



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

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 07.06.10**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com