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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# 3.3Vdc HCMOS SMD Crystal Clock Oscillator



7.0 x 5.08 x 1.8 mm

ASV SERIES

ESD Sensitive

RoHS/RoHS II compliant

**Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable**

## FEATURES:

- HCMOS, 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  $\mu$ Processors, PC Motherboards & Graphic Cards

## STANDARD SPECIFICATIONS:

| Parameters                  | Minimum         | Typical   | Maximum | Units | Notes            |
|-----------------------------|-----------------|-----------|---------|-------|------------------|
| Frequency Range             | 0.312           |           | 200     | MHz   |                  |
| Operating Temperature       | -10             |           | +70     | °C    | See options      |
| Storage Temperature         | -55             |           | +125    | °C    |                  |
| Overall Frequency Stability | -100            |           | +100    | ppm   | See options      |
| Supply Voltage (Vdd)        | +2.97           | 3.3       | +3.63   | V     | See options      |
| Supply Current (Idd)        |                 | 2.0       | 10.0    | mA    | 0.312 ~ 14.9 MHz |
|                             |                 | 3.6       | 15.0    |       | 15.0 ~ 29.9 MHz  |
|                             |                 | 5.6       | 20.0    |       | 30.0 ~ 39.9 MHz  |
|                             |                 | 7.2       | 25.0    |       | 40.0 ~ 49.9 MHz  |
|                             |                 | 13.3      | 30.0    |       | 50.0 ~ 59.9 MHz  |
|                             |                 | 19.0      | 35.0    |       | 60.0 ~ 79.9MHz   |
|                             |                 | 20.2      | 45.0    |       | 80.0 ~ 99.9 MHz  |
|                             |                 | 23.7      | 50.0    |       | 100.0 ~ 125.0MHz |
|                             |                 | 27.2      | 65.0    |       | 125.1 ~ 165 MHz  |
| Symmetry @ 1/2Vdd           | 40              | 50        | 60      | %     | See options      |
| Rise and Fall Time (Tr/Tf)  |                 | 3.0       | 5.0     | ns    | 0.312 ~ 14.9 MHz |
|                             |                 | 2.8       | 4.0     |       | 15.0 ~ 29.9 MHz  |
|                             |                 | 2.6       | 4.0     |       | 30.0 ~ 39.9 MHz  |
|                             |                 | 2.4       | 4.0     |       | 40.0 ~ 49.9 MHz  |
|                             |                 | 2.2       | 4.0     |       | 50.0 ~ 59.9 MHz  |
|                             |                 | 2.2       | 4.0     |       | 60.0 ~ 79.9MHz   |
|                             |                 | 2.0       | 4.0     |       | 80.0 ~ 99.9 MHz  |
|                             |                 | 1.8       | 4.0     |       | 100.0 ~ 125.0MHz |
|                             |                 | 1.5       | 4.0     |       | 125.1 ~ 165 MHz  |
| Output Load                 |                 |           | 15      | pF    | See options      |
| Output Voltage              | V <sub>OH</sub> | 0.9 x Vdd |         | V     |                  |
|                             | V <sub>OL</sub> |           | 0.4     | V     |                  |

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7.0 x 5.08 x 1.8 mm

ASV SERIES

ESD Sensitive

RoHS/RoHS II compliant

(Continued)

| Parameters                     | Minimum  | Typical | Maximum | Units | Notes            |
|--------------------------------|--|---------|---------|-------|------------------|
| Start-up Time                  |  | 0.4     | 4.0     | ms    | 0.312 ~ 14.9 MHz |
|                                |  | 0.4     | 4.0     |       | 15.0 ~ 29.9 MHz  |
|                                |  | 2.0     | 4.0     |       | 30.0 ~ 39.9 MHz  |
|                                |  | 1.5     | 4.0     |       | 40.0 ~ 49.9 MHz  |
|                                |  | 2.9     | 5.0     |       | 50.0 ~ 59.9 MHz  |
|                                |  | 1.5     | 5.0     |       | 60.0 ~ 79.9MHz   |
|                                |  | 1.3     | 5.0     |       | 80.0 ~ 99.9 MHz  |
|                                |  | 1.8     | 5.0     |       | 100.0 ~ 125.0MHz |
|                                |  | 2.7     | 5.0     |       | 125.1 ~ 165 MHz  |
| Tri-state function             | "1" ( $V_{IH} \geq 0.7 \cdot V_{DD}$ ) or Open: Oscillation<br>"0" ( $V_{IL} < 0.3 \cdot V_{DD}$ ): Hi Z |         |         |       |                  |
| Period Jitter One Sigma (RMS): |  | 2.5     |         | ps    | 0.312 ~ 14.9 MHz |
|                                |  | 3.2     |         |       | 15.0 ~ 29.9 MHz  |
|                                |  | 3.2     |         |       | 30.0 ~ 39.9 MHz  |
|                                |  | 3.2     |         |       | 40.0 ~ 49.9 MHz  |
|                                |  | 3.2     |         |       | 50.0 ~ 59.9 MHz  |
|                                |  | 3.2     |         |       | 60.0 ~ 79.9MHz   |
|                                |  | 3.0     |         |       | 80.0 ~ 99.9 MHz  |
|                                |  | 2.9     |         |       | 100.0 ~ 125.0MHz |
|                                |  | 2.9     |         |       | 125.1 ~ 165 MHz  |
| Aging at 25°C (first year)     | -5   |         | +5      | ppm   |                  |
| Disable Current                |  |         | 10      | uA    |                  |
| Enable Time                    |  | 3.5     | 5       | ms    |                  |
| Disable Time                   |  |         | 100     | ns    |                  |

# 3.3Vdc HCMOS SMD Crystal Clock Oscillator



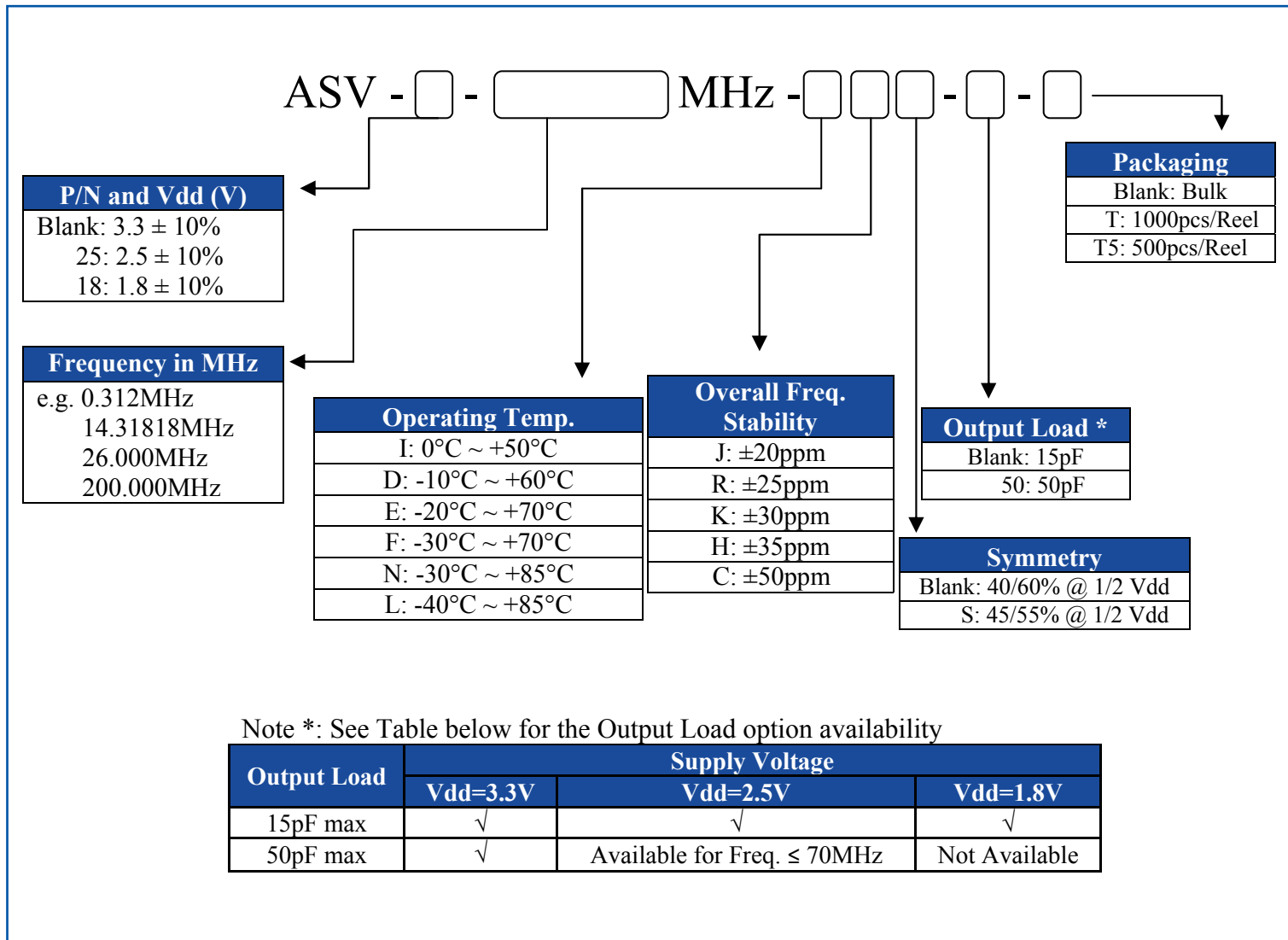
7.0 x 5.08 x 1.8 mm

**ASV SERIES**

**ESD Sensitive**

**RoHS/RoHS II compliant**

➤ **OPTIONS & PART IDENTIFICATION:** (Left blank if standard)



# 3.3Vdc HCMOS SMD Crystal Clock Oscillator



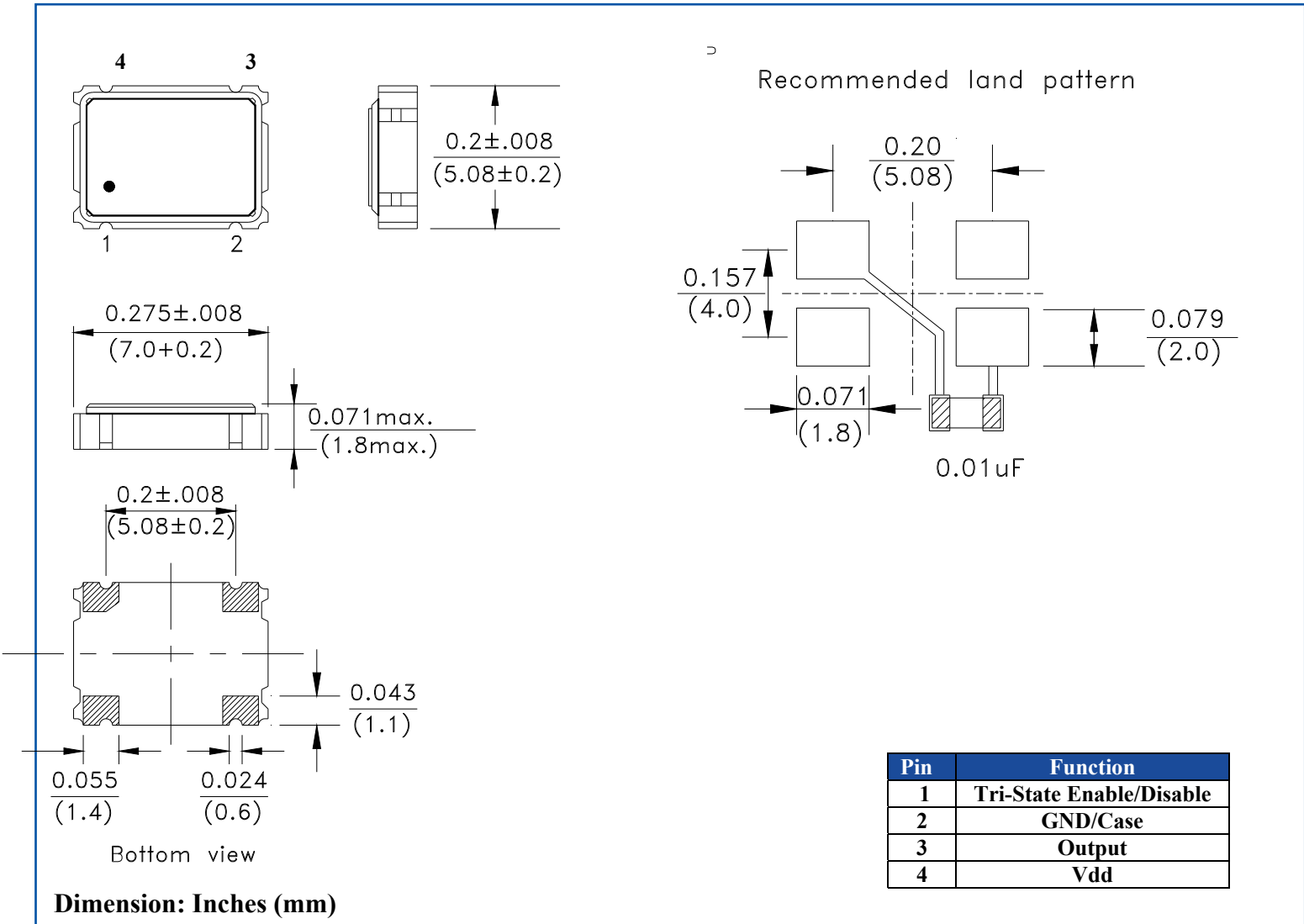
7.0 x 5.08 x 1.8 mm

**ASV SERIES**

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**RoHS/RoHS II compliant**

**OUTLINE DIMENSION:**



# 3.3Vdc HCMOS SMD Crystal Clock Oscillator



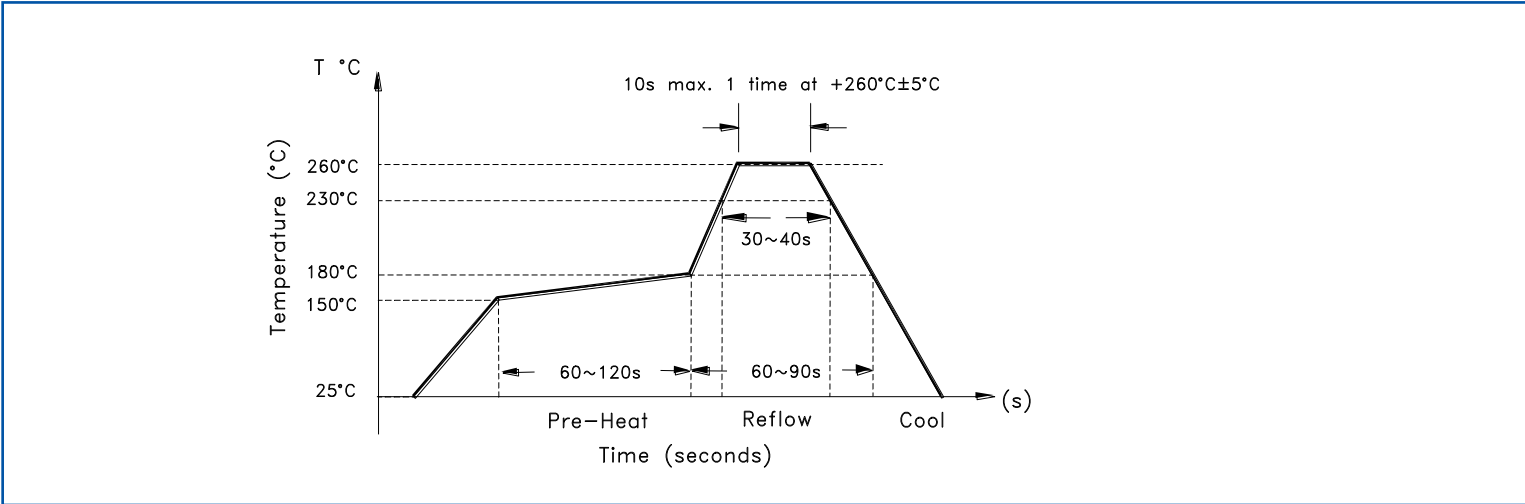
7.0 x 5.08 x 1.8 mm

ASV SERIES

ESD Sensitive

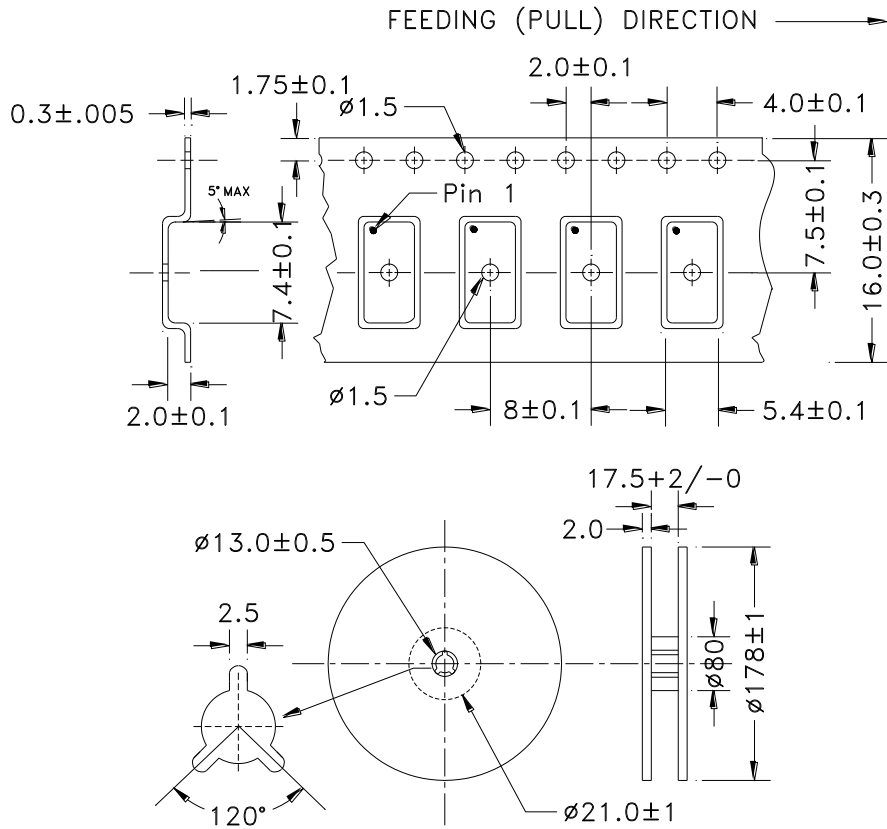
RoHS/RoHS II compliant

## REFLOW PROFILE:



## TAPE & REEL:

T: 1000pcs/reel  
T5: 500pcs/reel



Dimension: mm

**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.

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