## FEATURES:
- Compact and low in height at 1.2mm
- Low current consumption: 2mA typ. for 19.2MHz
- Tri state function
- Suitable for RoHS reflow
- Tight stability option ±20ppm for -40 to +85°C
- Seam sealed package assures high reliability

## STANDARD SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>0.625</td>
<td>156.25</td>
<td>MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10</td>
<td>+70</td>
<td>°C</td>
<td>STD (See options)</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55</td>
<td>+125</td>
<td>°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Frequency Stability</td>
<td>-100</td>
<td>+100</td>
<td>ppm</td>
<td>See options</td>
<td></td>
</tr>
<tr>
<td>Supply Voltage (Vdd)</td>
<td>+2.375</td>
<td>2.5</td>
<td>V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Current (Idd)</td>
<td>2</td>
<td>8</td>
<td>mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symmetry @ 1/2Vdd</td>
<td>45</td>
<td>55</td>
<td>%</td>
<td>0.625 ~ 89.999 MHz</td>
<td></td>
</tr>
<tr>
<td>Rise and Fall Time (Tr/Tf)</td>
<td>3</td>
<td>5</td>
<td>ns</td>
<td>0.625 ~ 19.99 MHz</td>
<td></td>
</tr>
<tr>
<td>Output Load</td>
<td>15</td>
<td>pF</td>
<td>CMOS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Voltage (VOH)</td>
<td>0.9* Vdd</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Voltage (VOL)</td>
<td>0.1* Vdd</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start-up Time</td>
<td>0.6</td>
<td>3</td>
<td>ms</td>
<td>0.625 ~ 19.99 MHz</td>
<td></td>
</tr>
<tr>
<td>Tri-state function</td>
<td>&quot;1&quot; (VH≥0.7<em>Vdd) or Open: Oscillation; &quot;0&quot; (VIL&lt;0.3</em>Vdd) : Hi Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMS Jitter</td>
<td>2</td>
<td>5</td>
<td>ps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aging at 25°C (first year)</td>
<td>-5</td>
<td>+5</td>
<td>ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand-by Current</td>
<td>10</td>
<td>µA</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

## OPTIONS & PART IDENTIFICATION:

- **Frequency in MHz**
  - e.g. 0.625MHz
  - 24.576MHz
  - 14.31818MHz
  - 26.000MHz
  - 156.25MHz
- **Operating Temp.**
  - E: 0°C ~ +50°C
  - D: -10°C ~ +60°C
  - C: -40°C ~ +85°C
  - A: -40°C ~ +85°C
- **Overall Freq. Stability**
  - J(*): ±20ppm
  - R: ±25ppm
  - K: ±30ppm
  - H: ±35ppm
  - B: ±40ppm
  - A: ±50ppm
- **Packaging**
  - Blank: Bulk
  - T: 1000pcs/Reel

Contact ABRACON for wider temperature range.

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Revised: 08.06.14
**ASE2 SERIES**

**Dimensions:** Inches (mm)

**Note:**
1. The outline package configuration varies with frequency range. Electrical properties, pin configuration, and land pattern are the same.
2. Recommend using an approximately 0.01µF bypass capacitor between Pin 2 and 4.

**REFLOW PROFILE**

**Dimensions:** Inches (mm)

**Note:**
1. The outline package configuration varies with frequency range. Electrical properties, pin configuration, and land pattern are the same.
2. Recommend using an approximately 0.01µF bypass capacitor between Pin 2 and 4.
2.5V CMOS Compatible SMD Crystal Oscillator

**ASE2 SERIES**

**Dimensions:** mm

**TAPe & REEl:**

T: 1000pcs/reel

8mm Tape Width

12mm Tape Width

**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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**Revised:** 08.06.14

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