32.768 kHz - SMD Oscillator

2.5x2.0x1.0mm

This smd oscillator series is an ultra miniature surface mount ceramic oscillator with a size of 2.5x2.0x1.0mm.

Features

- Pin 1 - Tri-state function
- Excellent heat resistance, high precision and high stability
- Very low power consumption
- -40° to +85°C temperature range

Standard Specifications

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>32.768 kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
<td>1.8V, 2.5V, 3.3V</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>10uA max.</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>Operating: -40°C to +85°C, Storage: -55°C to +125°C</td>
</tr>
<tr>
<td>Frequency Stability</td>
<td>±20 to ±100ppm</td>
</tr>
<tr>
<td>Output Load</td>
<td>HC MOS 15pF</td>
</tr>
<tr>
<td>Symmetry (Duty Cycle)</td>
<td>40% to 60%</td>
</tr>
<tr>
<td>Output rise and fall time (tr/tf)</td>
<td>30ns max.</td>
</tr>
<tr>
<td>High output voltage</td>
<td>90% Vdd min.</td>
</tr>
<tr>
<td>Low output voltage</td>
<td>10% Vdd max.</td>
</tr>
<tr>
<td>Pin 1 Tri-state</td>
<td>Output enable voltage: No Connection, Output enable voltage: 70% Vdd min., Output disable voltage: 30% Vdd max.</td>
</tr>
<tr>
<td>Oscillation start up time</td>
<td>10ms max.</td>
</tr>
<tr>
<td>Aging</td>
<td>±3ppm/1° year max.</td>
</tr>
</tbody>
</table>
### Part Numbering

**Sample:** B1350-AEAS3T-32.768kHz

<table>
<thead>
<tr>
<th>Output Logic</th>
<th>Freq. Stability (ppm)</th>
<th>Symmetry (Duty Cycle)</th>
<th>Temperature Range</th>
<th>Package Type</th>
<th>Package Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>B13</td>
<td>Actual stability</td>
<td>A = 40% to 60%</td>
<td>E = -40° to +85°C</td>
<td>A = 2.5x2.0mm</td>
<td>S = Surface Mount</td>
</tr>
<tr>
<td>HC MOS</td>
<td></td>
<td></td>
<td></td>
<td>Ceramic</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency (kHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = 1.8VDC</td>
<td>32.768 kHz</td>
</tr>
<tr>
<td>2.5 = 2.5VDC</td>
<td></td>
</tr>
<tr>
<td>3 = 3.3VDC</td>
<td></td>
</tr>
<tr>
<td>T = Tri-state E/D</td>
<td></td>
</tr>
</tbody>
</table>