32.768kHz CERAMIC SMD CRYSTAL OSCILLATOR

ASFLK SERIES

FEATURES:
- Pb-Free/RoHS Compliant
- Tri state function
- Suitable for high density SMT
- IR reflow capable
- Seam sealed ceramic package

APPLICATIONS:
- CCD clock for VTR camera
- Computers and peripherals
- Portable MP3 players and games

STANDARD SPECIFICATIONS:

PARAMETERS

<table>
<thead>
<tr>
<th>ABRACON P/N:</th>
<th>ASFLK Series</th>
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</thead>
<tbody>
<tr>
<td>Frequency range:</td>
<td>32.768kHz</td>
</tr>
<tr>
<td>Operating temperature:</td>
<td>0°C to + 70°C (see options)</td>
</tr>
<tr>
<td>Storage temperature:</td>
<td>-55°C to +125°C</td>
</tr>
<tr>
<td>Overall Frequency Stability:</td>
<td>± 100ppm max. (see options)</td>
</tr>
<tr>
<td>Supply Voltage (Vdd):</td>
<td>3.3 Vdc ± 10% (see options)</td>
</tr>
<tr>
<td>Supply current:</td>
<td>Vdd = 2.5 ~ 3.3V, 0.5mA typ. 1.0mA max.</td>
</tr>
<tr>
<td></td>
<td>Vdd = 5.0V, 1.5mA typ. 5.0mA max.</td>
</tr>
<tr>
<td>Symmetry:</td>
<td>40/60 % max.@ 1/2Vdd (see options)</td>
</tr>
<tr>
<td>Rise and fall time (Tr/Tf):</td>
<td>250 ns max.</td>
</tr>
<tr>
<td>Output Load:</td>
<td>15pF or 10TTL max.</td>
</tr>
<tr>
<td>Output Voltage:</td>
<td>VOH = 2.97V min. VOL = 0.33V max.</td>
</tr>
<tr>
<td>Start-up-time:</td>
<td>30ms max.</td>
</tr>
<tr>
<td>Tristate function:</td>
<td>Logic &quot;1&quot; or open: Oscillation</td>
</tr>
<tr>
<td></td>
<td>Logic &quot;0&quot; (VIL &lt; 0.8 Vdc) : Hi Z</td>
</tr>
<tr>
<td>Aging at 25°C/year:</td>
<td>± 3ppm/year max.</td>
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<tr>
<td>Phase jitter:</td>
<td>1ps RMS max.</td>
</tr>
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</table>

OPTIONS AND PART IDENTIFICATION:

ASFLK- □ - 32.768kHz - □ - □ - □ - □

Supply Voltage

- Blank 3.3V±10%
- 1 3.0V±10%
- 2 2.5V±10%
- 4 5.0V±10%

Operating Temp.

- E -20°C to +70°C
- F -30°C to +70°C
- N -30°C to +85°C
- L -40°C to +85°C

Freq. Stability

- J ±20ppm
- R ±25ppm
- K ±30ppm
- H ±35ppm
- B ±40ppm
- C ±50ppm

Packaging

- T Tape and Reel

Symmetry

- S 45/55% max at 1/2Vdd

ABRACON CORPORAATION

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ASFLK SERIES

5.0 x 3.2 x 1.3mm

OUTLINE DRAWING:

Dimensions: Inches (mm)

Recommended Land Pattern

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

PIN | FUNCTION
--- | ---
1 | Tri-state
2 | GND
3 | Output
4 | Vdd

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

REFLOW PROFILE

Need a test socket for the ASFLK 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.