3.2 x 1.3 x 1.0mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-CE

Moisture Sensitivity Level (MSL) – This product is not Moisture Sensitive - MSL = 1

FEATURES:
- Low resonant impedance

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>8.00</td>
<td>12.00</td>
<td></td>
<td>MHz</td>
<td></td>
</tr>
<tr>
<td>Resonant Impedance (Ro)</td>
<td></td>
<td></td>
<td>40</td>
<td>Ω</td>
<td></td>
</tr>
<tr>
<td>Load Capacitance (C1=C2, for test circuit)</td>
<td>12</td>
<td>15</td>
<td>18</td>
<td>pF</td>
<td></td>
</tr>
<tr>
<td>Frequency Tolerance @25 °C</td>
<td>-0.5</td>
<td>+0.5</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Frequency Stability (-25°C to +85°C)</td>
<td>-0.3</td>
<td>+0.3</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Withstanding Voltage</td>
<td>50</td>
<td></td>
<td></td>
<td>V</td>
<td>DC, 1 min</td>
</tr>
<tr>
<td>Rating Voltage (1) D.C. Voltage</td>
<td></td>
<td>+6</td>
<td></td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>Rating Voltage (2) A.C. Voltage</td>
<td>15</td>
<td></td>
<td></td>
<td>Vp-p.</td>
<td></td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>100</td>
<td></td>
<td></td>
<td>MΩ</td>
<td>10V, 1min</td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>-25</td>
<td>+85</td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55</td>
<td>+85</td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Aging Rate (Fosc) (10 years)</td>
<td>1.2</td>
<td>+0.2</td>
<td></td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

OPTIONS AND PART IDENTIFICATION

AWSCR - XX.XX CE - C□□ - □

- Frequency
  - Frequency in MHz
- Load Capacitance
  - Contact ABRACON for Load Capacitance options
- Packaging
  - T: 3000pcs/Reel

TEST CIRCUIT:

X: Ceramic Resonator
C1=C2: 15pF ±20%
1: INPUT 2: GROUND 3: OUTPUT

Parts shall be measured under a condition (Temp.: ±0±15°C, Humidity: 65±20% R.H.) unless the standard condition (Temp: 25±3°C, Humidity: 65±10% R.H.) is regulated to test.
3.2 x 1.3 x 1.0mm BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWSCR-CE

OUTLINE DIMENSIONS:

- Dimensions: 3.2±0.1 x 1.3±0.1 x 1.0max mm
- Recommended Land Pattern

Ref: ABRACON IS ISO9001:2008 CERTIFIED

REFLOW PROFILE:

- Peak: 260°C max
- 10s max
- 250°C
- Pre-heating
- Within 80-120s
- Within 20-40s

RoHS/RoHS II Compliant
Pb in ceramic, exemption (7c-I)

Visit www.abracon.com for Terms & Conditions of Sale
Revised: 04.04.13
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com
**3.2 x 1.3 x 1.0 mm BUILT-IN CAPACITANCE CERAMIC RESONATOR**

**AWSCR-CE**

**RoHS/RoHS II Compliant**

Pb in ceramic, exemption (7c-I)

**TAPE & REEL:**

**T: 3000pcs/Reel**

**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.

<table>
<thead>
<tr>
<th>φA</th>
<th>φB</th>
<th>W</th>
<th>T</th>
<th>Pieces per reel</th>
<th>Carrier tape size</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 ± 3</td>
<td>60 min.</td>
<td>+1 9.0 ± 0.5</td>
<td>14.0 max</td>
<td>3000 typ.</td>
<td>12</td>
</tr>
</tbody>
</table>

Dimensions: mm

Note: upon opening the original packaging, it is recommended that the product be used within 1 year. If the product will not be used within 1 year, it is recommended that the product be re-sealed in airtight packaging according to MSL 1 requirements to maintain solderability.

**CAUTION**

1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
2. This component is not hermetically sealed. Do not clean or wash the component.
3. Reflow Soldering: Do not use strong acidity flux, such as flux with chlorine content of greater than 0.2wt% during Reflow Soldering.
4. Do not expose the component to open flame.
5. This specification applies to the functionality of the component as a single unit.
6. Storage Conditions: If the product is to be stored for a period greater than Six Months after the Delivery Date, it is recommended that customers confirm the solderability and characteristics for the product prior to use.
7. This product is not recommended for use in the following applications: Automotive, Medical, Military, Safety, or any other high-reliability, life dependant applications. Contact Abracon Corporation prior to using this product when in doubt.