**Engineering Data**

**ENERGIZER NO. S13E**

Dimensions (mm):

- **1.58** Typical
- **7.80** Typical
- **4.90** Typical
- **5.52** Typical
- **5.08** Typical
- **1.25** Maximum Permissible Deflection from a Flat
- **1.3** Minimum (Applies to Top Edge of Can and/or Edge of Crimp, Whichever is Higher)

**Millimeters** | **Inches**
--- | ---
0.13 | 0.005
0.25 | 0.010
1.50 | 0.059
4.42 | 0.174
4.67 | 0.184
4.90 | 0.193
5.08 | 0.200
5.35 | 0.211
7.62 | 0.300
7.80 | 0.307

**Chemical System**: Silver Oxide (ZnAg₂O)

**Designation**: ANSI / NEDA-1181SO, IEC-SR48

**Battery Voltage**: 1.55 Volts

**Average Weight**: 1.13 grams (0.040 oz.)

**Volume**: 0.25 cubic centimeters (0.015 cubic inch)

**Average Service capacity (to 1.3 Volt)**: 68 mAh

(Rated Capacity at 15k ohms, 16 hrs /day at 21°C)

**Typical Drains @ 1.55V Load (ohms)**

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Typical Drains (milliamperes)</th>
<th>Load (ohms)</th>
<th>Cutoff Voltage (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 hours / day</td>
<td>1.03</td>
<td>1,500</td>
<td>68</td>
</tr>
<tr>
<td>16 hours / day</td>
<td>1.55</td>
<td>1,000</td>
<td>45</td>
</tr>
</tbody>
</table>

**Internal Resistance**
The typical impedance of these cells on open circuit and during useful discharge varies from 8-13 ohms. This applies over a frequency range of 40 - 5,000 hertz and at the current drains shown.

**Simulated Application Tests**

**Estimated Average Service at 21°C (70°F)**

<table>
<thead>
<tr>
<th>Service, Hours</th>
<th>Voltage, CCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.6</td>
</tr>
<tr>
<td>14</td>
<td>1.5</td>
</tr>
<tr>
<td>28</td>
<td>1.4</td>
</tr>
<tr>
<td>42</td>
<td>1.3</td>
</tr>
<tr>
<td>56</td>
<td>1.2</td>
</tr>
<tr>
<td>70</td>
<td>1.1</td>
</tr>
<tr>
<td>1,000 ohms</td>
<td>0.9</td>
</tr>
<tr>
<td>1,500 ohms</td>
<td>0.8</td>
</tr>
</tbody>
</table>

**Typical Discharge Characteristics**

**Simulated Test at 21°C (70°F)**

**Important Notice**

This data sheet contains information specific to batteries manufactured at time of its publication. Please contact your Energizer representative for most current information. Contents herein do not constitute a warranty.

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