Rayovac Stock Number: HD-D
Name: HD-D (D) HEAVY DUTY CARBON ZINC

Specifications

Cell Chemistry: Zinc- Manganese Dioxide (Zn/MnO2)
Designation: ANSI/NEDA – 13D (D), IEC – R20
Nominal Voltage: 1.5 volts
Approximate Weight: 3.15 Oz (89.4 grams)
Approximate Volume: 3.24 CU IN (53 CU CM)
Operating Temp. Range: -18° C to 55° C (0° F to 130° F)
Sheel Life: 3 years at 21°C
Terminals: Cap and base
Shell: Metal
Environmental: No mercury added formulation
Meets Environmental Protection Agency (EPA) Requirements for landfill disposal
Rayovac Material Safety Sheets

ANSI / IEC Standard Dimensions

Dimensions (mm)

TYPICAL INITIAL SERVICE AT 70°F (HOURS)

<table>
<thead>
<tr>
<th>Application and Duty Cycle</th>
<th>Discharge Load</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toy/Game 1 hr./day</td>
<td>2.2 Ω</td>
<td>10.5 hrs.</td>
</tr>
<tr>
<td>Portable Stereo 2 hrs./day</td>
<td>600 mA</td>
<td>5.6 hrs.</td>
</tr>
<tr>
<td>Radio 4hrs./day</td>
<td>10 Ω</td>
<td>49.5 hrs.</td>
</tr>
<tr>
<td>Release 24 hrs./day</td>
<td>2.2 Ω</td>
<td>7.6 hrs.</td>
</tr>
<tr>
<td>Lighting/HIFT 4 min/15/min, 8 hrs./day</td>
<td>2.2 Ω</td>
<td>8.6 hrs.</td>
</tr>
</tbody>
</table>

Discharge Curves - ANSI Test

Voltage

0.8 1.0 1.2 1.4 1.6 1.8

0 2 4 6 8

Hours

600 mA