



North American Headquarters
601 Rayovac Drive
Madison, WI 53711
Telephone 1-800-331-4522
Internet www.rayovac.com

Marketing Data Sheet - Batteries
S6600143
Issue E
Memo No: 19481

Rayovac Stock Number: **HD-D**

Name: **HD-D (D) HEAVY DUTY INDUSTRIAL CARBON ZINC**

ENGINEERING DATA:

Cell Chemistry: Carbon Zinc

Designation: ANSI/NEDA – 13D (D), IEC – R20

Nominal Voltage: 1.5 volts

Approximate Weight: 3.3 Oz (93 grams)

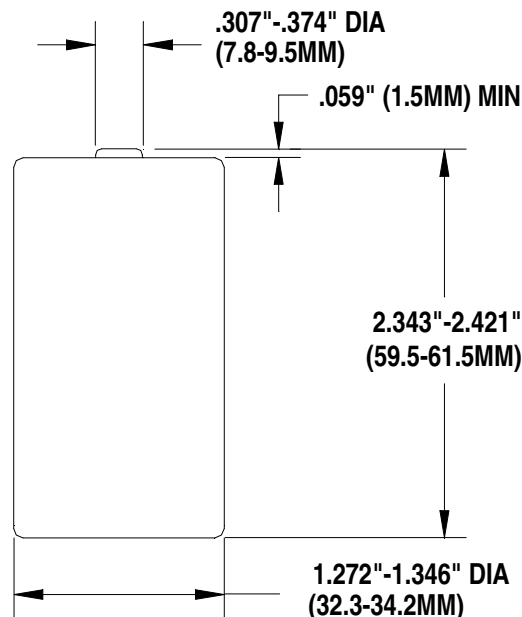
Approximate Volume: 3.4 CU IN (55.7 CU CM)

Operating Temp. Range: -30° C to 55° C (-20° F to 130° F)

Terminals: Flashlight

Shell: Steel

Environmental: Meets Environmental Protection Agency (EPA) Requirements for Landfill Disposal.
No Mercury Added Formulation
[Rayovac Material Safety Data Sheets](#)



TYPICAL INITIAL SERVICE AT 70°F (HOURS)

Application	Discharge Load	Duty Cycle	Midpoint Current (mA@ 1.2V)	Cut-off Voltage	Service	Units	Discharge Capacity @ Cut-off Voltage (mAh)
Toy/Game	2.2 Ω	1 hr/day	545	0.8	8.85	hours	4029
Portable Stereo	600 mA	2 hr/day	62	0.9	3.67	hours	2194
Radio	10 Ω	4 hr/day	120	0.9	43.5	hours	5186
Lighting	2.2 Ω	4 min/hr, 8 hr/day	545	0.9	5.65	hours	2857
Release	2.2 Ω	24 hr/day	545	0.9	5.52	hours	2705
Lighting	1.5 Ω	4 min/15 min, 8 hr/day	800	0.9	3.62	hours	2626

540318, 540319, 540645, 540850

This data is subject to change. Performance information is typical. Contents herein do not constitute a warranty.