

SILVER

PRIMARY CELLS & BATTERIES

The high volumetric energy density of DURACELL® silver oxide button cells, and their ability to deliver this energy at relatively high current drains, makes them ideal for miniature devices where space is limited. Silver cells also have an extremely stable discharge voltage, good shelf life, and the ability to operate over a wide temperature range.

DURACELL PRODUCT NUMBER	NOMINAL VOLTAGE (V)	RATED CAPACITY ⁽¹⁾ (mAh)	RATED VOLTAGE CUTOFF (V)	LOAD (OHMS)	APPROX. DRAIN (mA)	DIMENSIONS				AVERAGE WEIGHT		MAXIMUM VOLUME		TERMINALS	CROSS REFERENCE	
						MAXIMUM DIAMETER		MAXIMUM HEIGHT		oz.	g	in ³	cm ³		NEDA/ANSI	IEC
						in.	mm	in.	mm							

SELECTED BUTTON & CYLINDRICAL CELLS

D301/386	1.55	120	1.2	15,000	0.10	0.455	11.56	0.165	4.19	0.060	1.70	0.026	0.426	FLAT	1133S0	SR43
D303/357	1.55	165	1.2	1,000	1.50	0.455	11.56	0.220	5.58	0.080	2.30	0.033	0.540	FLAT	1131S0	SR44
D309/393	1.55	70	1.2	10,000	0.15	0.310	7.87	0.212	5.38	0.036	1.00	0.015	0.245	FLAT	1137S0	SR48
D361/362	1.55	24	1.2	50,000	0.03	0.308	7.83	0.085	2.15	0.016	0.44	0.006	0.098	FLAT	1158S0	SR720
D364	1.55	18	1.2	50,000	0.03	0.268	6.80	0.085	2.15	0.012	0.35	0.004	0.066	FLAT	1175S0	SR60
D370/371	1.55	33	1.2	30,000	0.05	0.372	9.45	0.085	2.15	0.023	0.64	0.009	0.147	FLAT	1171S0	SR920
D377	1.55	25	1.2	50,000	0.03	0.267	6.78	0.104	2.64	0.014	0.40	0.005	0.082	FLAT	1176S0	SR66
D379	1.55	14	1.2	68,000	0.02	0.228	5.79	0.085	2.15	0.008	0.23	0.003	0.049	FLAT	1191S0	—
D381/391	1.55	40	1.2	15,000	0.10	0.455	11.56	0.087	2.21	0.030	0.85	0.013	0.213	FLAT	1160S0	SR55
D384/392	1.55	42	1.2	15,000	0.10	0.310	7.87	0.142	3.60	0.025	0.72	0.010	0.164	FLAT	1135S0	SR41
D389/390	1.55	70	1.2	13,000	0.11	0.455	11.56	0.120	3.05	0.042	1.20	0.021	0.327	FLAT	1138S0	SR54
D395/399	1.55	55	1.2	30,000	0.05	0.374	9.50	0.106	2.69	0.029	0.81	0.011	0.180	FLAT	1165S0	SR57
D396/397	1.55	30	1.2	30,000	0.05	0.311	7.90	0.104	2.64	0.019	0.54	0.007	0.114	FLAT	1163S0	SR59
MS76	1.55	180	1.2	1,500	1.00	0.455	11.56	0.210	5.33	0.081	2.30	0.033	0.540	FLAT	1184S0	SR44

(1) Rated at 70°F (21°C). Typical capacities can be higher or lower based on user's particular application.



DURACELL

TECHNICAL/OEM primary system

- TECHNICAL/OEM
 - OVERVIEW
 - PRIMARY SYSTEMS
 - Overview
 - Alkaline Manganese
 - Lithium Manganese
 - Zinc Air
 - Silver Oxide
 - RECHARGEABLE
 - Overview
 - Nickel Metal Hydride
 - SYSTEM COMPARISONS
 - SAFETY DATA
 - PRODUCT DATA
 - DESIGN TOOLS
 - CONTACT OEM

OVERVIEW | [PRODUCT SPECIFICATION SUMMARY](#) | [MSDS](#)

OVERVIEW

 Print this page



ADVANTAGES AND APPLICATIONS

The **DURACELL**[®] zinc/silver oxide cell is noted for its high volumetric energy density and its ability to deliver this energy at relatively high current drains. Silver oxide cells are ideal for miniature devices where space is limited, such as small electronic and photographic equipment. Their relatively high cost limits their usage to specialized applications.

CHEMISTRY

The silver cell uses an amalgamated zinc anode, silver oxide as the cathode material, and a potassium hydroxide electrolyte.

CONSTRUCTION

The silver cell is manufactured in button cell configurations. A typical DURACELL silver button cell is shown above.

RATED CAPACITY

The silver button cell ranges from 14 mAh to 180 mAh.

PERFORMANCE CHARACTERISTICS

Voltage

The open circuit voltage of the silver cell is 1.6 V. Typical median operating voltage is 1.5 to 1.2 V.

Discharge Characteristics

The silver oxide battery system has a flat discharge curve.

Energy Density

60 Wh/lb. (130 Wh/kg); 8.2 Wh/in.³ (500 Wh/l).

Effect of Discharge Load and Temperature

The silver oxide system is capable of discharge at relatively heavy loads. The silver system is best suited for operation from -4°F to 130°F (-20°C to 54°C).

Shelf Life

The charge retention of the silver cell is over 84% after two years of storage at 70°F (21°C).



© 2005 Procter & Gamble. All rights reserved. [Legal Terms and Conditions](#). [Privacy Poli](#)

