LR Micro Alkaline Batteries

Product list

Model	Nominal Voltage (V)	Nominal Capacity* (mAh)	Nominal Discharge Current (μA)	Diameter (mm)	Height (mm)	Weight (g)
LR44	1.5	60	100	11.6	5.4	1.8
LR43	1.5	55	100	11.6	4.2	1.6
LR1130	1.5	35	100	11.6	3.05	1.2
LR1120	1.5	26	45	11.6	2.05	0.9
LR41	1.5	25	70	7.9	3.6	0.6
4LR44	6.0	60	100	13.0	25.2	9.7

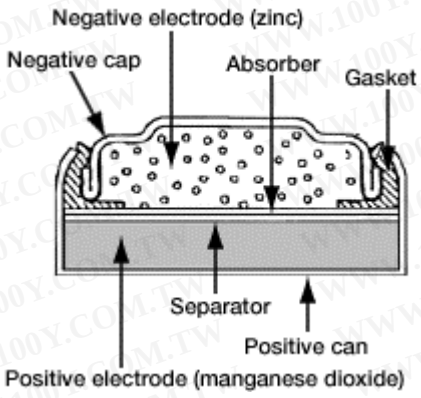
* Nominal capacity indicates the duration until the voltage drops to 1.2V when discharged at a nominal discharge current at 20 deg. C.

- Data and dimensions are reference values only. For further details, please contact your nearest Maxell office.

Outline

The Maxell's LR battery is a compact, light and economical alkaline battery having a nominal voltage of 1.5V. The LR battery is less expensive than silver oxide batteries and usable with a wide variety of equipment, ranging from electronic calculators to electric toys. Based on many years of experience and know-how in the field of silver oxide batteries, the LR battery boasts high quality and high reliability.

Cross-sectional diagram



Principle and reaction

The button-type alkaline battery uses manganese dioxide (MnO_2) as its positive active material and zinc (Zn) as its negative active material. Potassium hydroxide (KOH) is used as an electrolyte.

Battery Reactions

Positive reaction: $MnO_2 + H^+ + e^- \rightarrow MnOOH$

Negative reaction: $Zn + 2OH^- \rightarrow ZnO + H_2O + 2e^-$

Total reaction: $2MnO_2 + H_2O + Zn \rightarrow 2MnOOH + ZnO$

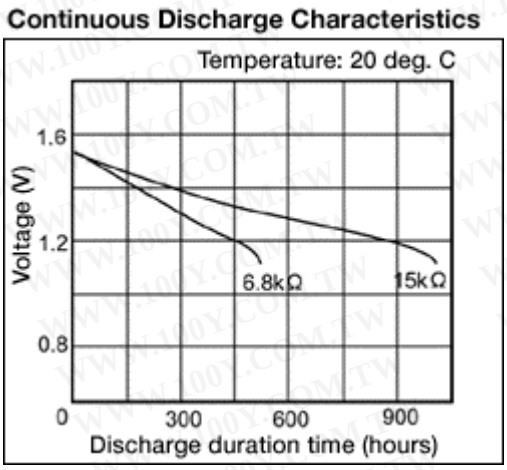
Features

- Excellent cost-performance
  Unlike silver oxide batteries that use the precious metal, silver, the alkaline battery features good cost-performance because it uses low-cost manganese dioxide as its active material.
- Superior leakage* resistance
  Like silver oxide batteries, the LR battery is manufactured using the Maxell's original leak-resistant processing that suppresses the electrolyte from rising up and seeping out — a basic phenomenon of alkaline electrolytes.
- Excellent heavy load characteristics
  The LR battery offers excellent heavy load characteristics and employs a separator featuring low internal resistance, good liquid holding properties and high-drain characteristics.

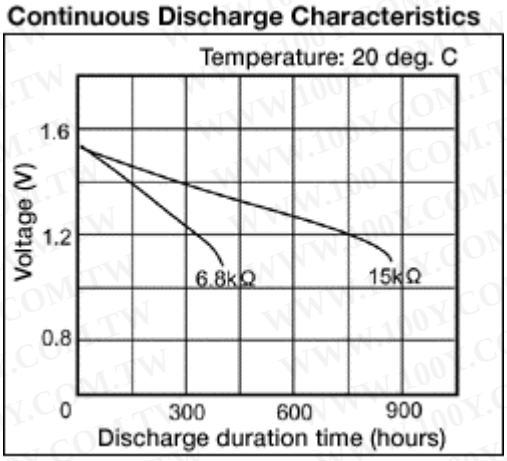
  (* Leakage is defined as an unintended escape of liquid from a battery.)

Properties

[LR44 (60 mAh)]



[LR43 (55 mAh)]



Applications

Mini-game machines, electronic calculators, electronic clocks, electronic watches, measuring instruments, electronic lighters, electronic thermometers, cameras, compact radios, and various types of remote controllers, etc.

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