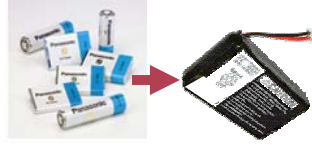


Applications

Rose Knows Batteries: Alkaline to carbon Zinc

No matter what your battery needs, Rose is here to help. For over 40 years, Rose has been supplying high technology batteries to demanding OEMs. We are experienced in designing the best power solution for your OEM product. With a variety of on site technical resources, including our free publication, "[5 Common Mistakes Engineers Make in Designing Batteries](#)", along with on-site engineering expertise, count on Rose for straight answers. **Call [Rose Electronics](#), your [technical resource](#) for battery projects.**



BUILD A BATTERY

Need to go from cells to a custom lithium ion battery pack? See which battery configuration option is the best suited for your application! Go to the [Rose Electronics website](#) and check out our new [battery builder](#) to create your custom pack today!

Did you know?

Rose Electronics will be attending the [24th International Battery Conference and Exhibit](#) for Primary and Secondary Batteries, Small Fuel Cells and Other Technologies March 19-22, 2007 in Ft. Lauderdale, FL. Come and join us for this important industry event!

Products

A123 Systems Offers High Power, Long Life Li-Ion

Thanks to the kinetics of A123 Systems' M1 nanophosphate technology, the electrodes in these cells have lower area specific impedance, resulting in the capability of high power to be extracted from the electrodes. The ANR26650M1 (26mm x 65mm) cells are each 3.3V, 2.3Ah and can be fast charged at 10A and discharged at 70A continuous. Cycle life at 100% DOD at 10A is over 1000 cycles. [Contact Rose](#) for more information on these cells.



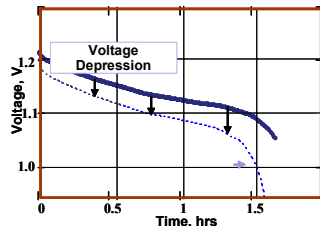
Rose Knows Batteries - Technology Notes

Focus on: What is "Memory Effect"?

Memory Effect is a term used to explain a decrease in rated capacity of a Ni-Cd cell. It is related to either a design or application flaw and is caused by one of three things:

- 1. Too High Cutoff Voltage.** Any cutoff voltage greater than 1.0V/cell will not allow obtaining all the capacity the cells are rated to deliver. A 1.1V/cell cutoff, for example, may deliver up to 25-30% variations in run time.
- 2. Too High an Overcharge Current or Temperature.** Overcharge ALWAYS shorten battery life; high temperature (over 20°C) ALWAYS shortens battery life.
- 3. Voltage Depression (most common).**

This is a negative plate phenomenon that happens over extended periods of overcharge. Crystalline growth creates a resistive layer across the nickel substrate and depresses the discharge voltage by 90-150mV per cell. The result is a lowering of operating voltage, or voltage depression, yielding a decrease in run time (see chart).



Make sure you know the latest transport rules for lithium batteries. Visit www.rosebatteries.com

About Rose Electronics

Rose is a leading supplier of batteries and power solutions for the **GPS mobile systems, medical device, industrial field service equipment and enterprise storage solution** marketplaces. Rose has earned the trust, respect and loyalty of some of the most demanding OEMs. Call us at 1-800-632-4789 or visit www.rosebatteries.com.

Thank you for reading the Rose Batteries eNewsletter