

Why is the current so high when the battery is so small

What happens when a battery is connected to a circuit?

When a battery is connected to a circuit, the electrons from the anode travel through the circuit toward the cathode in a direct circuit. The voltage of a battery is synonymous with its electromotive force, or emf. This force is responsible for the flow of charge through the circuit, known as the electric current.

What happens if you measure a battery on its own?

If you measure the potential difference across the terminals of a battery on its own you will get a different value to what you measure when it is in a complete circuit. The value will be less when the battery is included in a complete circuit. Sometimes the difference is called the lost volts.

Why does the battery capacity decrease over the expected ideal?

So twice the power for half the time is the same amount of energy drained from your battery. EDIT: If the question is why would the battery capacity decrease over the expected ideal, then Brian's comment is the answer. The internal battery impedance means more power dissipation at higher currents.

How does a battery work?

The chemicals in a battery literally strip charge away from one terminal and deposit charge on the other. In general, the more surface area the chemicals have to deposit charge onto, and take charge away from, the higher the current the battery can produce.

How does temperature affect battery life?

@ffriends_, Also when continuously sourcing large amounts of current, the internal temperature of the battery increases. With the temperature increases the battery chemistry starts breaking up faster, causing the internal resistance to increase. As a result the life of the battery decreases (Mostly for primary cell batteries)

What is the difference between voltage and current in a battery?

The voltage of a battery is synonymous with its electromotive force, or emf. This force is responsible for the flow of charge through the circuit, known as the electric current. battery: A device that produces electricity by a chemical reaction between two substances. current: The time rate of flow of electric charge.

Conductors are full of charges. There is not a small "stock" that is to be distributed. The current is the flow of charges: more current doesn't usually mean more charges, but more "throughput". Also, current is not the result of charges "pushing" each other; it comes from charges undergoing an electric field.

So while sleeping and not performing any functions we need to look at two quiescent current draws in this circuit. First the LM7805 which would have a draw of approx 6mA. While that may seem like a small draw

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when you are trying to save battery life 6mA can make the difference in a week of battery or a month of battery. Even more when you start ...

big or new batteries tend to have a low internal resistance, so they can deliver a high current. small or old batteries tend to have a high internal resistance, so they can't deliver ...

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The higher the resistance, the steeper the parabola. The chemical reactions reach a stable value where the battery straight line crosses the parabola for the wire. A high resistance wire cuts the battery line earlier, so high resistance means slower chemical reactions, and so smaller current and lower power

The higher the current, the lower the potential difference across the terminals, because the emf is constant. For the same reason, the potential difference only equals the emf when the current ...

This is why voltmeters are made with such high resistance - to avoid affecting the current flow (by having current flow through the voltmeter instead of the circuit), such an example why high resistance might be ...

For example, if a battery has a capacity of 10 Ah, it can deliver 10 amps of current for one hour, or 5 amps for two hours. Watt-hours (Wh) measure the total amount of energy that a battery can deliver in one hour. This unit takes into account the voltage of the battery as well as the current. For example, if a battery has a capacity of 100 Wh ...

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