

KNOWLEDGE PROBE 3: ALTERNATIVE POWER SOURCES

Ultracapacitors

Learning Objectives

1. Describe ultracapacitor operation and specifications
 2. Identify the components of an ultracapacitor.
 3. Identify ultracapacitor applications.
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1. Another name for ultracapacitor is
 - a. Capacitor-battery
 - b. Killer cap
 - c. Supercapacitor
 - d. Uber capacitor
 2. What is a typical value for an ultracapacitor?
 - a. 100 to 1000 μF
 - b. 1000 to 10,000 μF
 - c. 1 to 4 F
 - d. Anything over 10 F
 3. The working voltage of an ultracapacitor is normally less than
 - a. 1 volt
 - b. 3 volts
 - c. 10 volts
 - d. 100 volts
 4. An ultracapacitor with a small load acts most like a/an
 - a. Battery
 - b. Inductor
 - c. Power supply
 - d. Resistor
 5. An ultracapacitor is normally used with another DC power source.
 - a. True
 - b. False
 6. The basic purpose of an ultracapacitor is to
 - a. Recharge batteries
 - b. Replace batteries in some products
 - c. Run motors and speakers
 - d. Supply a high current to assist the main DC source on peak loads



7. Which of the following does NOT typically use an ultracapacitor?
- a. Autosound system
 - b. Digital camera and camcorder
 - c. Laptop computers
 - d. Stereo system