

What is the Unit of Capacitance?

- A. Farad (F)
- B. Ohm (Ω)
- C. Volt (V)
- D. Ampere (A)

Show Answer...

Correct Answer: A (Farad)

A capacitor is an electronic component that stores electrical energy. The amount of energy stored in a capacitor depends on its capacitance, which is measured in units called Farads (F). The formula for the energy stored in a capacitor is:

$$E = \frac{1}{2} CV^2$$

where E is the energy stored in the capacitor, C is the capacitance of the capacitor, and V is the voltage across the capacitor.

Based on the formula above, the unit of capacitance (C) is Farad (F)

Explanation:

The unit of capacitance (C) is measured in Farads (F). A Farad is a large unit of capacitance, and most capacitors used in electronic circuits have capacitance values that are much smaller than one Farad.

Ohms (Ω) are the units of resistance, Volts (V) are the units of potential difference or voltage, and Amperes (A) are the units of electric current. It is important to remember the units of these fundamental electrical quantities when working with electronic circuits.

In conclusion, the unit of capacitance is the Farad (F), and it is used to measure the amount of electrical charge that a capacitor can store. Understanding the units of basic electrical quantities is important for designing and analyzing electronic circuits.