### Capacitor



#### Topic Outline

What is a Capacitor?
Types of Capacitor

### What is a Capacitor?

A device that stores electrons. The basic capacitor is made up of two conductors separated by an insulator or dielectric.

**NEXT** 

Depending on how the capacitor is built, the dielectric can be made of paper, plastic, mica, ceramic, glass, a vacuum or any other such non conductive material.

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**NEXT** 

Capacitor come in variety of sizes, shapes, models, or if you so desire they can be manufactured by your specifications.

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**NEXT** 

The value of a capacitor can vary from a fraction of a pico-Farad to more than a micro Farad. Voltage levels can range from a couple to a substantial couple of hundred thousand volts

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### Types of Capacitor

Non-polarized Capacitor
Polarized Capacitor
Variable Capacitor
Trimmer Capacitor

Non-Polarized Capacitor



Type of capacitor that can be connected any way in a circuit. There is no positive or negative. Common types of non-polar capacitors are ceramic, mica and some electrolytic.

A capacitor is used with a resistor in a timing circuit. It can also be used as a filter, to block DC signals but pass AC signals.





#### Polarized Capacitor

A capacitor stores electric charge. This type must be connected the correct way round. A capacitor is used with a resistor in a timing circuit. It can also be used as a filter, to block DC signals but pass AC signals.

## Variable Capacitor



A capacitor whose capacitance can be varied. These are usually made up of one or more moving plates and one or more non moving plates separated by the dielectric. By moving the plates, we can vary the capacitance. And it is used in a radio tuner.



# Trimmer Capacitor

This type of variable capacitor is operated with a small screwdriver or similar tool. It is designed to be set when the circuit is made and then left without further adjustment