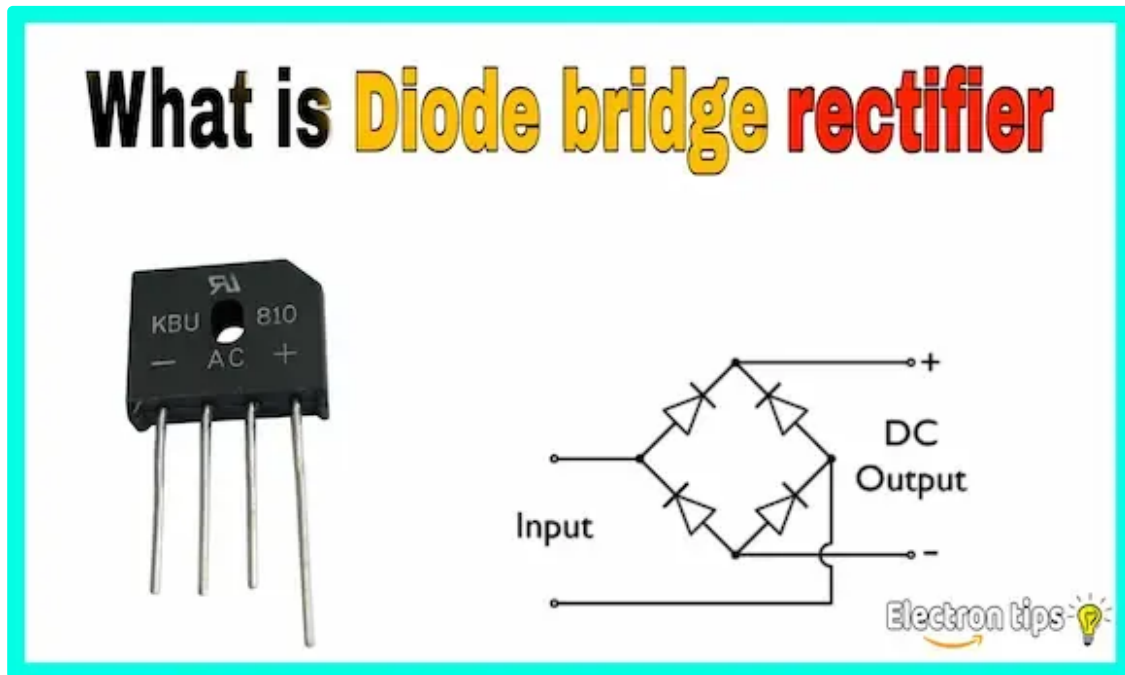


# What is Diode bridge, Diagram, working principle

مستتر نوب Last update : year ago 3 Minutes to read

table of contents

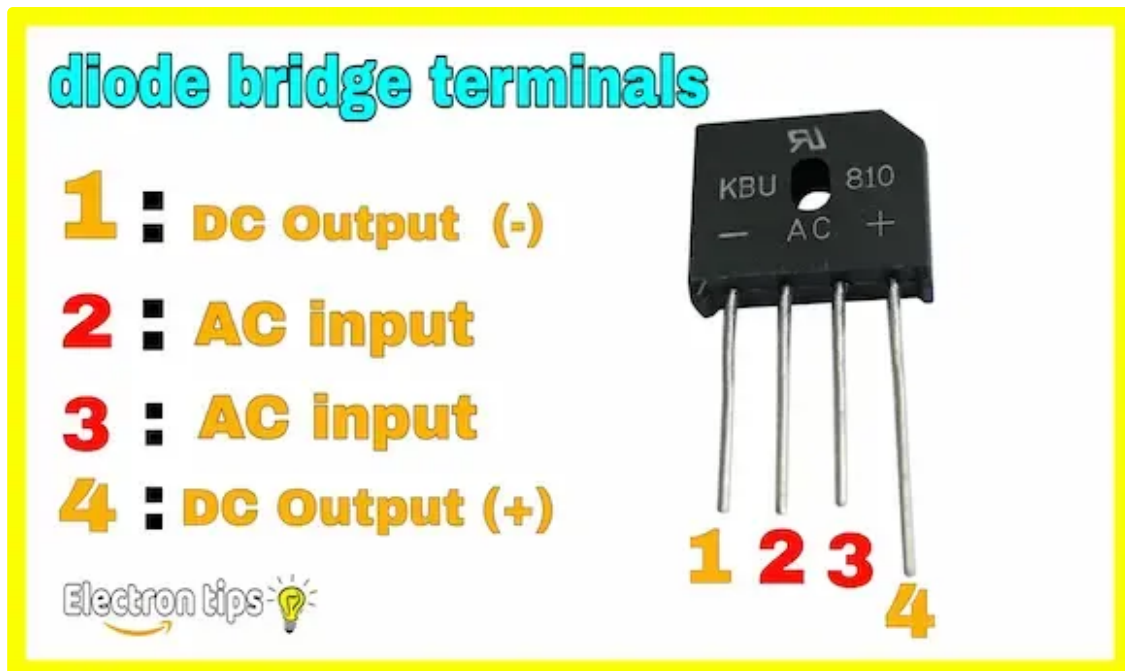


What is Diode bridge, Diagram, working principle

## What is Diode bridge, Diagram, working principle

In today's article, we will tell you about an electronic component that is widely used in electrical conversion circuits, which is the diode bridge, diode bridge is an essential part of electronic and electrical systems, so what is the diode bridge? And how does the electronic diode bridge works ? And what is the schema of the diode bridge circuit? bridge rectifier circuit ? bridge rectifier circuit ?

### Definition of diode bridge:



Diode bridge rectifier terminals

The diode bridge is an electronic circuit that converts alternating electrical current (AC) to direct electrical current (DC). It contains four diodes as shown in the picture below. It is an electronic piece that contains four terminals :

- the first side : output DC (+)
- Second Party : input AC
- third party : input AC
- Fourth party: output DC (-)

### How does a diode bridge work :

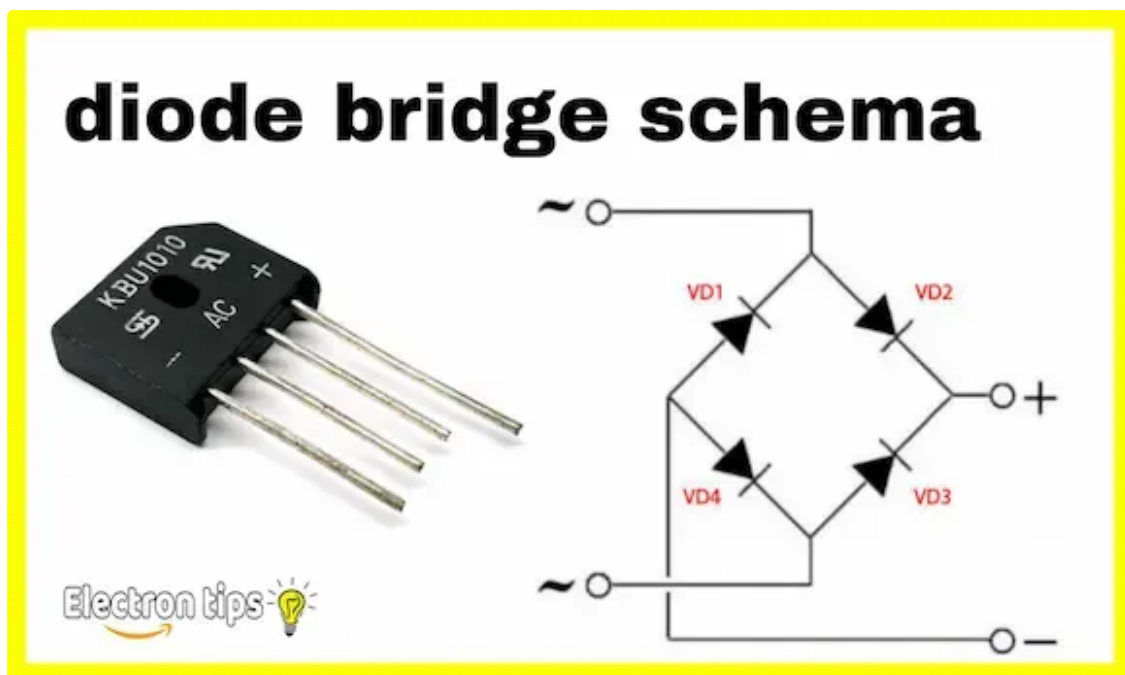
As we said at the beginning, the diode bridge contains four specially connected diodes, where the positive electrical current is loaded on one side and the negative electrical current on the other. Thanks to the diode elements, the alternating electrical current is converted into a direct electrical current. This is simply the principle of the diode bridge's operation.

### Uses of diode bridge:

The diode bridge is used in many applications and electronic devices that depend on direct electrical current to operate, These are the most important uses of the electronic unification bridge:

- The diode bridge is used in phone chargers and personal computers( laptops ), as the computer components require a continuous electrical current in their operation and it converts the alternating current to the direct current through a component responsible for feeding the computer, which is the power supply.
- Improving the performance of control systems and electrical devices.
- Providing continuous electrical current to electrical transformers.
- Charging electric batteries using alternating current b
- As a primary energy source.

## Diode bridge types:



Diode bridge rectifier structure

There are two basic types of unification bridges, and they are as follows:

## Half wave bridge:

This bridge converts only half of the alternating electric current.

## Full wave bridge:

This bridge converts alternating current completely.

## Test diode bridge test method:

In order to check whether the bridge is operating normally or not, if it is safe, we get the same reading when testing it with a multimeter, The same reading must be obtained when checking it using a multifunctional multimeter while changing the battery polarities, as in the following picture:



Test diode bridge rectifier

## Conclusion:

In conclusion, this was a comprehensive article about the monotheism bridge and the method of checking it with a multimeter. It is considered an essential part of electronic and electrical

systems, thanks to which it is easy to convert alternating electrical current to direct current, which enables the devices to work better and more effectively.