**2.3 Disadvantages of Bridge Rectifier**

* In this type two extra diodes are use.
* Two diodes in series conduct at a time on alternate half-cycles.
* Internal resistance voltage drop is twice than that of the center tap circuit.
* If stepping up or stepping down of voltage is not needed , we may even do without a transformer.

**Advantages of Bridge Rectifier**

* A bridge rectifier has a higher efficiency than a half-wave rectifier. ...
* A smooth output is obtained from a bridge rectifier than the half-wave rectifier.
* The bridge rectifier allows both positive and negative half cycles of the input AC signal for processing.

The bridge rectifier circuit diagram consists of various stages of devices like **a transformer, Diode Bridge, filtering, and regulators**. Generally, all these blocks combination is called a regulated DC power supply that powers various electronic appliances.

From the bridge rectifier circuit diagram, we can conclude that the flow of current across the load resistor is equal throughout the positive & the negative half cycles. The polarity of the o/p DC signal may be either totally positive otherwise negative. In this case, it is totally positive. When the direction of the diode is reversed then a complete negative DC voltage can be attained.

Therefore, this rectifier allows the flow of current throughout both the cycles of positive as well as negative of the i/p AC signal. The bridge rectifier’s output waveforms are illustrated below.