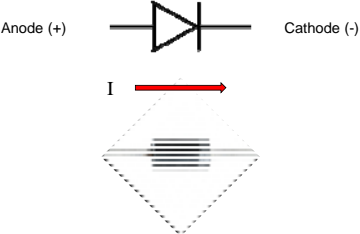


Rectification

Diode

- A diode is an electrical device that allows current to flow through it in one direction only



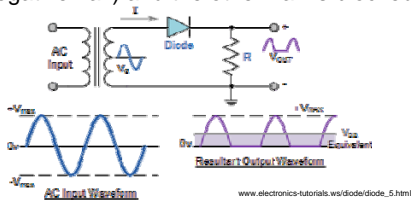
The diagram shows the standard electronic symbol for a diode, consisting of a triangle pointing towards a vertical line. The left terminal is labeled 'Anode (+)' and the right terminal is labeled 'Cathode (-)'. Below the symbol, a red arrow labeled 'I' points from left to right, indicating the direction of current flow. Underneath the arrow is a diamond-shaped diagram representing the physical structure of a diode, showing a central region with horizontal lines, likely representing the depletion region or the junction between the p-type and n-type materials.

Rectification

- In many applications it is necessary to convert alternating current to direct current
- This is done with diodes

Half-wave Rectifier

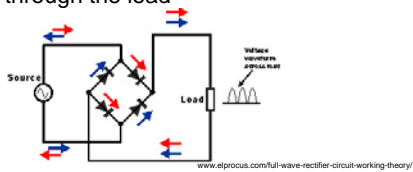
- One half of the current is passed (positive half or negative half) and the other half is blocked



- Half of the power is lost through this process

Full-wave Rectifier

- All of the current is allowed to pass in such a way that all of the current passes the same direction through the load



- Also known as a **(diode) bridge rectifier**

- A different configuration of a bridge rectifier

