PN JUNCTION DIODE EXPERIMENT KIT

ABSTRACT

Introduction: we have developed a PN junction diode transistor kit. The following experiments are possible with this kit. PN junction Forward bias, PN junction Reverse bias, LED Forward bias, LED Reverse bias, Transistor as an amplifier, Step down transformer, Bridge rectifier, Filter etc.

The p-n junction consisting of p-type and n-type semiconductors provided with two terminals is called a p-n junction diode. The symbol for the p-n junction diode is shown in fig 1. Arrow head indicates a p-type semiconductor and gives the direction of flow of positive charges which is the direction of conventional current.

In a p-n junction diode when p-side is connected to the positive terminal and n-side is connected to the negative terminal of a battery, diode is said to be in forward bias condition. This forward bias condition of a p-n junction diode is shown in following figure. In a p-n junction diode when p-side is connected to the negative terminal and n-side is connected to the positive terminal of a battery, diode is said to be in reverse bias condition.

BLOCK DIAGRAM

