

Unit Name: Analogue Electronics 2 Simulation 3

Title

The Light Emitting Diodes

Details

The purpose of this experiment is to determine and plot the characteristics of the light emitting diode in the forward-bias region, and to compare between different colored diodes.

The Light-Emitting Diode (LED) is a semiconductor PN junction diode that emits visible light or near-infrared radiation when forward biased. LEDs switch off and on rapidly, are very rugged and efficient, have a very long lifetime, don't heat up, and are easy to use.

They are used as indicators, displays, and as light transmitters. Various impurities are added during the doping process to vary the color output. The LED is basically just a specialized type of PN junction diode, made from a very thin layer of fairly heavily doped semiconductor material.