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Assignment

Electronic

Date: _____

Q No :-> 1

Ans :->

Diode

Zener Diode

(1) A diode is semiconductor in only one direction.

=> A zener diode is a semiconductor device which conduct in forward biased as well as reverse biased.

(2) A normal diode if operated in reverse biased will get destroyed.

=> zener diode is designed in a way that it conduct in a reverse biased mode without getting damaged.

(3) in normal diode doping intensity is low.

=> In zener diode doping intensity is high to achieve sharp break down.

(4) The doping characteristics of diode is moderately doped.

The doping characteristics of zener diode is sharply doped.

4

The breakdown voltage in case of diode, the break down voltage is comparatively high.

The breakdown voltage in case of Zener diode is sharp.

5

The diode is generally used in the rectifiers, clippers, clamping etc.

The zener diode is generally used as voltage regulator.

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Q No \rightarrow 2

Ans \rightarrow 2

A bipolar junction transistor is a type of transistor that is a type of transistor that use both electron and hole as charge carriers. Unipolar transistor, such as field effect transistor use only one kind of charge carrier. injected at one of its terminals to control a much larger current flowing between two other terminals, making the device capable of amplification or switching.

BJT use two junction between two semiconductor types n-type and p-type, which are region in a single crystal of material. The junction can be made in several different ways, such as changing the doping of semiconductor material as it is grown by depositing metal pellets to form alloy junctions.

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or by such method as diffusion of doping n-type doping and P-type substance into the crystal.

The superior productivity and performance of junction transistors soon displaced the original point contact transistor. Diffused junction transistors along and digital junction transistors. Hundreds of bipolar junction transistors can be made in one circuit at very low cost.

Q No : 3

Ans :-> 3

BJT works :->

Transistors are one of the very important components used in electronic circuit constructions. The humble components can almost be found every where : from simple relay driver to complex motherboard circuit transistor prove their

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presence in fact, your microcontroller and microprocessors are nothing but a collection of a large number of transistor synthesized to perform a collective operation. Do remember that many switching devices - BJT, MOSFET, IGBT, SCR, TRIAC, DIAC, etc. can be collectively called transistor. But the most basic of the transistor is BJT Transistor.

Q1 What are the types of BJT?

Ans :-> There are two types of transistor (i) NPN transistor and (ii) PNP transistor.