

Semiconductors

A diode is an electronic component that allows current to flow in only one direction. (T6B02) Diodes have only two electrodes. Anode and cathode are the names of the two electrodes of a diode. (T6B09) A semiconductor diode's cathode lead is usually identified with a stripe. (T6B06)

Light-emitting diodes are a particular type of diode. When current flows through them, they emit visible light, making them useful as indicators and as part of digital readouts. The abbreviation "LED" stands for Light Emitting Diode. (T6B07)

Transistors are electronic components capable of using a voltage or current signal to control current flow. (T6B01) The transistor is a component that can be used as either an electronic switch or amplifier. (T6B03) Gain is the term that describes a transistor's ability to amplify a signal. (T6B12)

The transistor is an electronic component that can amplify signals. (T6B05) A transistor is a component made of three layers of semiconductor material. (T6B04) Bipolar junction transistors have layers that are either P-type, which means that it has a positive net charge, or N-type, which means it has a net negative charge. Each layer has an electrode, making the transistor a device with three leads.

There are two types of bipolar junction transistors: PNP or NPN. A PNP transistor has two P layers, with an N layer sandwiched between them. An NPN transistor has two N layers, with a P layer sandwiched between them. The three electrodes of a PNP or NPN transistor are the emitter, base, and collector. (T6B10)

Another type of transistor often found in amateur radio equipment is the field-effect transistor. The abbreviation "FET" stands for Field Effect Transistor. (T6B08) FETs, like NPN and PNP transistors have three leads. Source, gate, and drain are the three electrodes of a field effect transistor. (T6B11)

"Schematic Symbols" is the name used for standardized representations of components in an electrical wiring diagram. (T6C01) The symbols on an electrical circuit schematic diagram represent electrical components. (T6C12) The way components are interconnected is accurately represented in electrical circuit schematic diagrams. (T6C13)

REVIEW QUESTIONS: (15)

T6B02	T6B09	T6B06	T6B07	T6B01
T6B03	T6B12	T6B05	T6B04	T6B08
T6B10	T6B11	T6C01	T6C12	T6C13