



TRADE: DETCE/S2

SUBJECT: ELECTRONICS WORKSHOP.

TEACHER: SMITA UKIL.

ELECTRONIC COMPONENTS

An **electronic component** is any basic **discrete device** or physical entity in an electronic system used to affect electrons or their associated fields. Electronic components are mostly industrial products, available in a singular form and are not to be confused with electrical elements.

Electronic components have a number of electrical terminals or leads. These leads connect to other electrical components, often over wire, to create an electronic circuit with a particular function (for example an amplifier, radio receiver, or oscillator). Basic electronic components may be packaged discretely or integrated inside of packages such as semiconductor integrated circuits, thick film devices.

CLASSIFICATIONS OF ELECTRONIC COMPONENTS

Electronics components are classified as: *Active components .*

Passive components.

Active components: An **active component** is a device that has an ability to amplify a signal or produce a power gain. There are two types of **active components**: electron tubes and semiconductors or solid-state devices. A typical **active component** would be an oscillator, transistor or integrated circuit .

Passive components. **Passive components** can't introduce net energy into the circuit. As a consequence they can't amplify (increase the power of a signal), although they may increase a voltage or current (such as is done by a transformer or resonant circuit). Passive components include two-terminal components such as resistors, capacitors, inductors, and transformers.