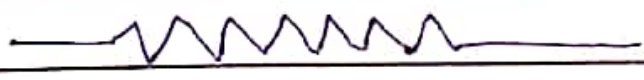


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* Resistor

A resistor is a passive two-terminal electrical component that implements electrical resistance as a circuit element. In electronics circuits, resistors are used to reduce current flow, adjust signal levels, to divide voltages, bias active elements, and terminate transmission lines, among other uses. High power resistor that can dissipate many watts of electrical power as heat, may be used as part of motor controls, in power-distribution systems, or as test loads for generators. Fixed resistors have resistance that only change slightly with temperature, time or operating voltage. Variable resistors can be used to adjust circuit elements (such as volume control or a lamp dimmer), or as sensing devices for heat, light, humidity, force or chemical activity.

Electronic Symbol



Two common schematic symbols.

Resistors are common elements of electrical networks and electronic circuit and are ubiquitous in electronic equipment. Practical resistor as discrete components can be composed of various components and forms. Resistors are also implemented within integrated circuit.

The electrical function of resistor is specified by its resistance. Common commercial resistors are manufactured over a range of more than nine order of magnitude. The normal value of the resistance falls within the manufacturing tolerance, indicated on the components.