

Polarized Parts Getting it right

When loading parts into the circuit board for soldering, many may be installed in either direction with no problem.

But some parts must be installed with the correct orientation or really bad things may happen when you hook up the power.

Here is a list of those parts which must be oriented correctly and some hints on how to figure out how to do that.

Integrated Circuits or IC sockets

Diodes and light emitting diodes (LED's)

Electrolytic capacitors

Temperature Sensor and Voltage Regulators

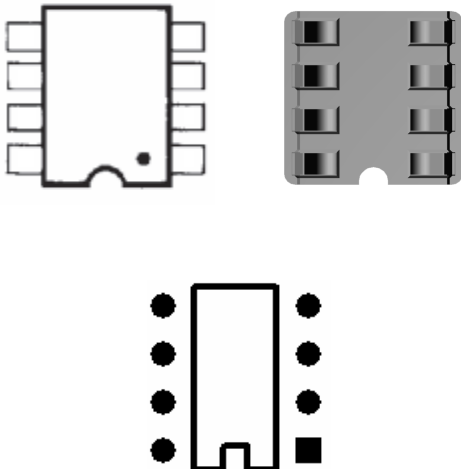
Multi-pin headers having friction-lock tabs

Resistors and non-electrolytic capacitors may be installed in either direction, though it is one sign of a professional job if all parts are oriented so that their color codes or parts labels may be viewed properly from the same direction.

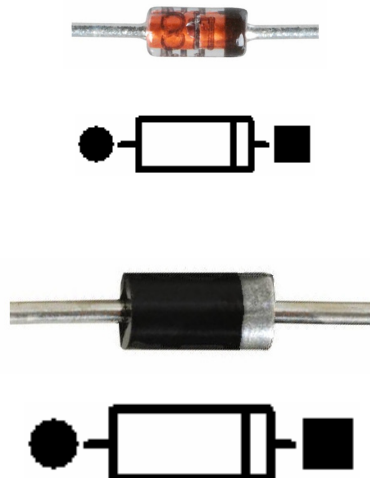
The clues to which way to put in a part may be found both in the silk-screened pattern on the top of the board and in most cases, by one of the round copper pads for the component leads having been replaced by a square one. In parts having numbered pins, pin #1 is identified by the square pad.

Below are diagrams which relate the silk-screened outlines and pads on the circuit board to the appearance of those components which must be properly oriented.

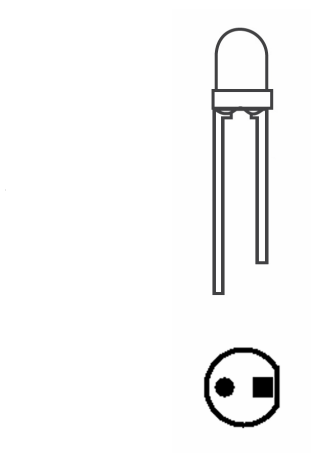
Integrated Circuits and Sockets



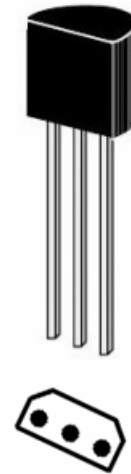
Diodes



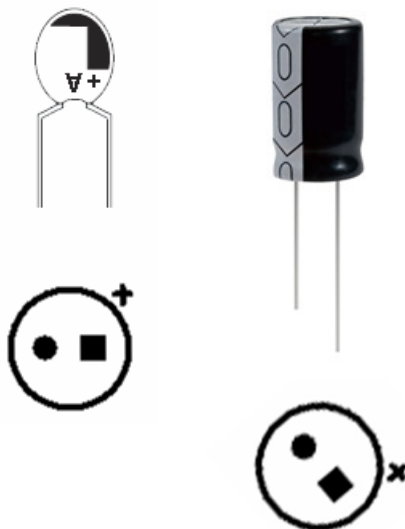
Light Emitting Diode - LED



Temperature Sensor
and Voltage Regulators



Electrolytic Capacitors



Molex Headers

