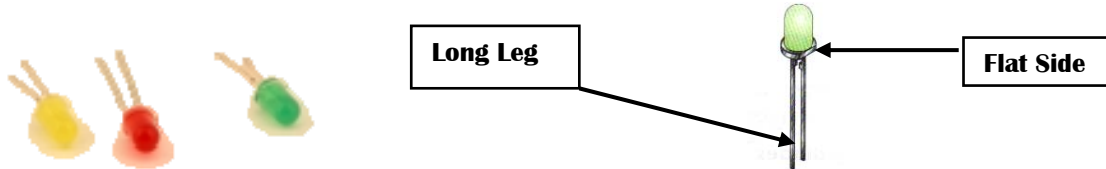


Electronic Components

LED(s)

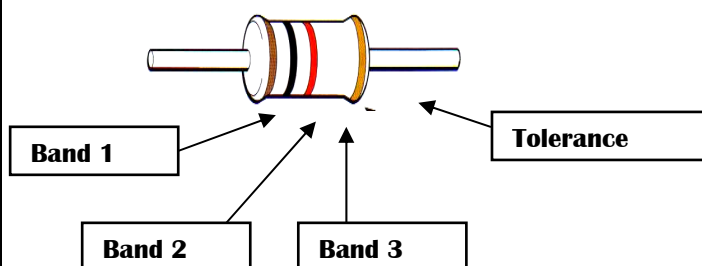


Light emitting diodes (LED)'s are used as an indicator lamp in electronic devices. They come in a variety of colours. The most common colours are green, red and yellow. The long leg on an Led must be connected to the positive and the short leg/ pin near the flat side must be connected to the negative.

Resistors

Resistors are used to limit the current flowing in part of a circuit or to set the voltage at a point in a circuit. Fixed resistors are painted with bands of colour. These are a code which is used to give them their value.

Colour	Band 1	Band 2	Band 3
Black	0	0	x1
Brown	1	1	x10
Red	2	2	x100
Orange	3	3	x1000
Yellow	4	4	x10000
Green	5	5	x100000
Blue	6	6	x1000000
Violet	7	7	
Grey	8	8	
White	9	9	

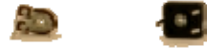


Tolerance	
Silver	+/- 10%
Gold	+/- 5%

Variable Resistors



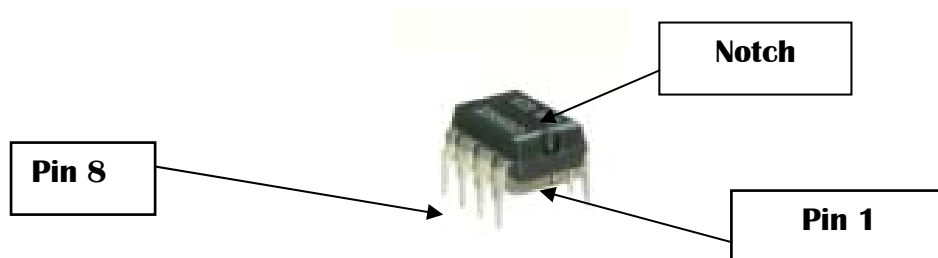
Variable Resistor



Preset Variable Resistors

Variable Resistors vary in resistance as a knob is turned. They can be of different values and sizes. Very small variable resistors called preset resistors can only be adjusted with a screwdriver.

555 Timer Chip



The 555 timer is an 8 pin chip which is used in timing circuits. It can be used as a monostable or astable timer. The monostable timer always returns to the original state after a certain time. An astable timer changes from one state to another continuously.