Emitter Follower

(i) To provide current amplification with no voltage gain.

(ii)       Impedance matching.

AMPLIFIER

Transistor working as an amplifier has various advantages and applications in the field of electronics and communication. They are  
1. It can be used in long-distance communication because the intensity of the signal obtained at the output will be high.  
2. In the radio signals amplification, these transistor amplifiers are utilized.  
3. The amplifiers play a prominent role in wireless communication.  
4. The amplification of the signals using transistors as amplifiers can be utilized in the FM signals broadcasting.  
5. In the optical Fiber Communication also these types of amplifiers are utilized.  
6. The basic application of this transistor amplifier is as an audio amplifier and this is used in our day to day activities that we come across.

SWITCH

Current Source

1) bias the differential input stage and

2) provide bias AND a super high gain for the Gain Stage with its astonishingly high output resistance.

Common Base

The applications of the common base are as follows:

* It is commonly used for amplifiers than requires low input impedance, such as microphones.
* It is used in very high and ultra high frequency amplifiers because it performs better at high frequencies. It is due to the input-output impedance and the high voltage amplifications.
* It is used for impedance matching. If the circuit has high input resistance, the common base provides it with the low output resistance. It is known as **impedance matching**.