University of Information Technology and Sciences (UITS)

Lab Report : 4

ECE 252: electronic devices and circuit

common emitter configuration

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1 Objective:

In not unusualplace emitter configuration, base is the enter terminal, collector is the output terminal and emitter is the not unusualplace terminal for each enter and output. That manner the bottom terminal and not unusualplace emitter terminal are called enter terminals while collector terminal and not unusualplace emitter terminal are called output terminals.

In not unusualplace emitter configuration, the emitter terminal is grounded so the not unusualplace emitter configuration is likewise called grounded emitter configuration. Sometimes not unusualplace emitter configuration is likewise called CE configuration, not unusualplace emitter amplifier, or CE amplifier. The not unusualplace emitter (CE) configuration is the maximum extensively used transistor configuration

2 Objective:

: In Common Emitter (CE) configuration, input is applied between the base – emitter and output is taken across collector – emitter. Here emitter of the transistor is common to both input and output, hence the name common emitter configuration. The most important characteristics of transistor in any configuration are input and output characteristics.

3 Apparatus List:

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SL no.	Name	Ratings	Quantity
1	Bread Board	—	1
2	Npn transistor	2N6027	1
3	Resistor	1KΩ	2
4	DC Voltage Supply	(0-16) V	2
5	Voltmeter for messing voltage	(0-20) V	2
6	Ammeter for measuring current	(0-200) mA	2

Figure 1:

4 Circuit Diagram:

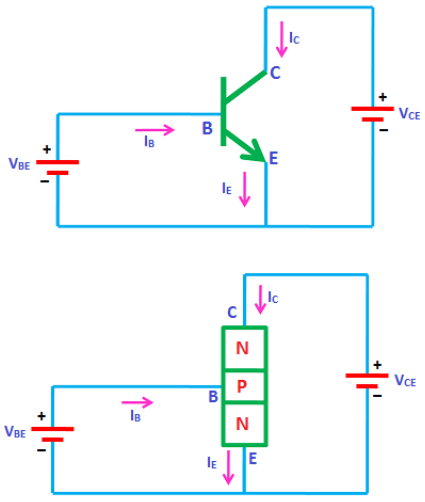

Figure 2:

5 Data Table:

Data Table:

Vce = 3 (V)		Vce = 6 (V)	
Vbe (V)	I b (mA)	V be (V)	I b (mA)
0.71	1	0.6	0.5
0.75	2.5	0.74	2
0.77	3.5	0.76	3
0.80	4.5	0.79	4
0.83	6	0.81	5

Figure 3:

6 Result Analysis

Transistor characteristics are plots that show how the current and voltage of a transistor behave under various conditions. These control the direction of the input current change (input characteristics). An output current vs output voltage plot for an input current is shown in the output characteristics above.

7 Conclusion

In this lab, I learned about transistors and their properties as well as how to measure transistor properties.

8 Refrences

In this lab, I learned about transistors and their properties as well as how to measure transistor properties.