



Electromechanical Devices MMME2051

Exercise Sheet 8 – Transistors

- 8.1 Draw a diagram of a relay and explain how it works.
- 8.2 Why can't we supply large voltages and currents from microchips?
- 8.3 Draw a circuit diagram for a circuit that would use a small voltage/current signal to turn on a 20 V light bulb using an NPN bipolar junction transistor.
- 8.4 What are the advantages/disadvantages of bipolar junction transistors.
- 8.5 What are the advantages/disadvantages of using a MOSFET? Why would you use a push pull pair to drive a MOSFET?
- 8.6 Draw a circuit diagram showing how a push-pull pair would be used to drive a MOSFET and describe what the advantages of using a push pull pair to drive a MOSFET are. Explain how a push-pull circuit works.