

LAB 5: Diode

Objective:

To measure the current-voltage characteristics of a diode.

General Safety Guidelines:

Do not touch the equipment with wet hands.

Lab Equipment:

Diode, breadboard, power supply, voltmeter, ammeter

Procedure:

1. Use the 0-20V leads of the power supply. Turn the current limiting knob to maximum position.
2. Connect the positive (red) lead of the power supply to the positive lead of the diode (side with a stripe on it). Also, connect the positive lead of the diode to the multi-meter port marked "HI". Then connect the negative lead of the diode to the multi-meter port marked "I". Also, connect the negative lead of the diode to the multi-meter port marked "LO" and the negative lead of the power supply.
3. Now measure the I-V characteristics by varying the voltage and measuring the current. Move in increments of .1V

Hint:

You can start taking readings when you supply a voltage of 0.3 V from your power generator and can stop at 0.9V. Don't put too much voltage across the diode or you will burn it out.

Data and Analysis:

Your data should be taken in the following format:

Voltage (volts)	Current (mA)	Log (I)
.3		
.4		

Plot I vs. V for the diode

Plot Log(I) vs. V for the diode.