

Diode Current-Voltage Characteristics

Design and implement a simple circuit to obtain the low frequency I-V curve of a diode directly on the oscilloscope using the latter's x-y display mode.

Hint: The signal generator in the lab has floating output.

After you setup your circuit and get all the results you will demonstrate your circuit in the lab to your lab assistant. Before you are sure to make your demo you may ask questions to your assistant and discuss some of your results.

You will be uploading your lab report to Moodle. In order to be eligible for uploading your report to Moodle you need to get your assistant's check. Your assistant will also give you a grade for your performance in the demo.

In general your report must have title, name, introduction, purpose, scope, methods (design and implementation), results, conclusion, and discussion sections. Make sure you note all voltages, currents, frequencies etc that you use and/or observe and with their correct units. In your report definitely explain your circuit and procedures. Capture the oscilloscope screen to your report. Calculate from your oscilloscope screen the parameters of the low frequency diode model. Demonstrate that and explain why the oscilloscope display you observe changes when higher frequencies are applied.

You may make your demo next week. Deadline for report upload will be given in Moodle.