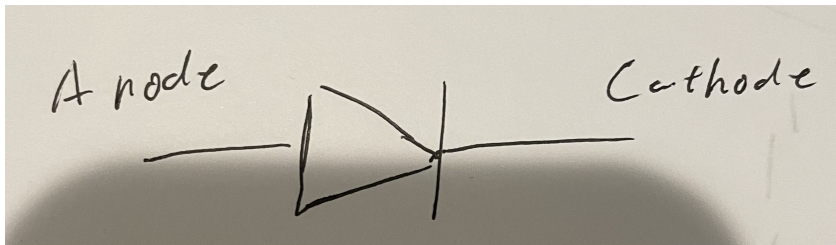


ECE 3 Lab 3 PreLab

Lawrence Liu

April 14, 2022

Problem 1



Problem 2

Higher

Problem 3

Look at the length of the leads or look at the size of the metal plates inside of the LED

Problem 4

When a positive voltage relative to the emitter is applied to the gate of an NPN transistor, current is allowed to flow from the collector to the emitter

Problem 5

$\frac{1}{s}$ because the units of RC is $F\Omega = \frac{1}{s}$

Problem 6

Oscilloscope Circuit 1

Yes, Grounds are shorted

Oscilloscope Circuit 2

No, Grounds are not shorted, there is a resistor in between.

Oscilloscope Circuit 2

Yes, the Battery has no ground

AD2 Circuit 1

Yes, because of differential probing we don't need to worry about accidentally causing shorts

AD2 Circuit 2

Yes, because of differential probing we don't need to worry about accidentally causing shorts