# EE 105 Spring 2026

## Prelab Worksheet 3: Diodes, Rectifiers, Optical Transceivers

Name(s): _____ Lab Section: _____

Submit this worksheet to Gradescope before your lab section the week it is due.

**1**

Expected Output:

**2**

$V_s$ = _____

**3**

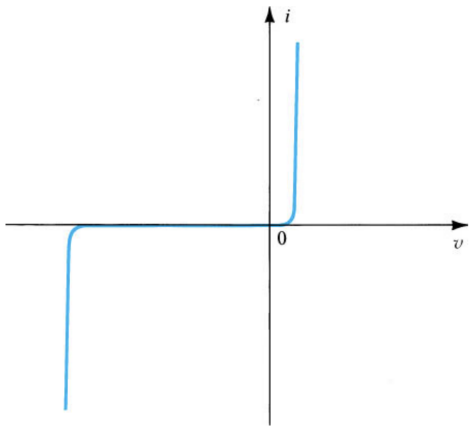


Figure 1: Diode curve.

**4.1**

Irradiance = _____

**4.2**

$\lambda =$ _____

**4.3**

Relative Sensitivity = _____

**4.4**

Irradiance = _____

**5**

Current = _____ ; $\lambda =$ _____

**6.1**

Why do we need the amplifier?

**6.2**

Receiver 1: Rf = _____ ; Vdd = _____

Receiver 2: Rf = _____ ; Vdd = _____

**6.3**

Why is LED in receiver 1 flipped?

**6.4**

Which configuration is preferred?

**7.1**

Receiver 1: BW = _____

Receiver 2: BW = _____

**7.2**

Schematic:

Plot:

Receiver 1: BW = _____

Receiver 2: BW = _____

**7.3**

BW = _____

What is the effect of a third stage on bandwidth?