University of Washington

BEE331 Lab 2.1

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July 29, 2024

Characterising Diodes; I-V Curve

Design Objective

In this lab, we introduce ourselves to the diode, we characterise its function by the I-V curve.

Circuit Design Outline

With a resistor of an arbitrary impedance greater than 100Ω ($R \geq 100\Omega$), and the natural impedance of the Function Generator in series ($R_{TOT} = R_{FG} + R \geq 150\Omega$), the (1N4148 silicon) diode is set in series to forward-bias from the function generator. Set the function generator @ f=1kHz and $V_P = 5V$.

Figure 1: Series R + Diode

(a)
LT-Spice + Rudimentary Schematic Series RD (499Ω) Circuit

(b)
LT-Spice + Rudimentary Schematic Series RD (100Ω) Circuit

(c)
Series RD Circuit 499Ω

(d)
Series RD Circuit 100Ω

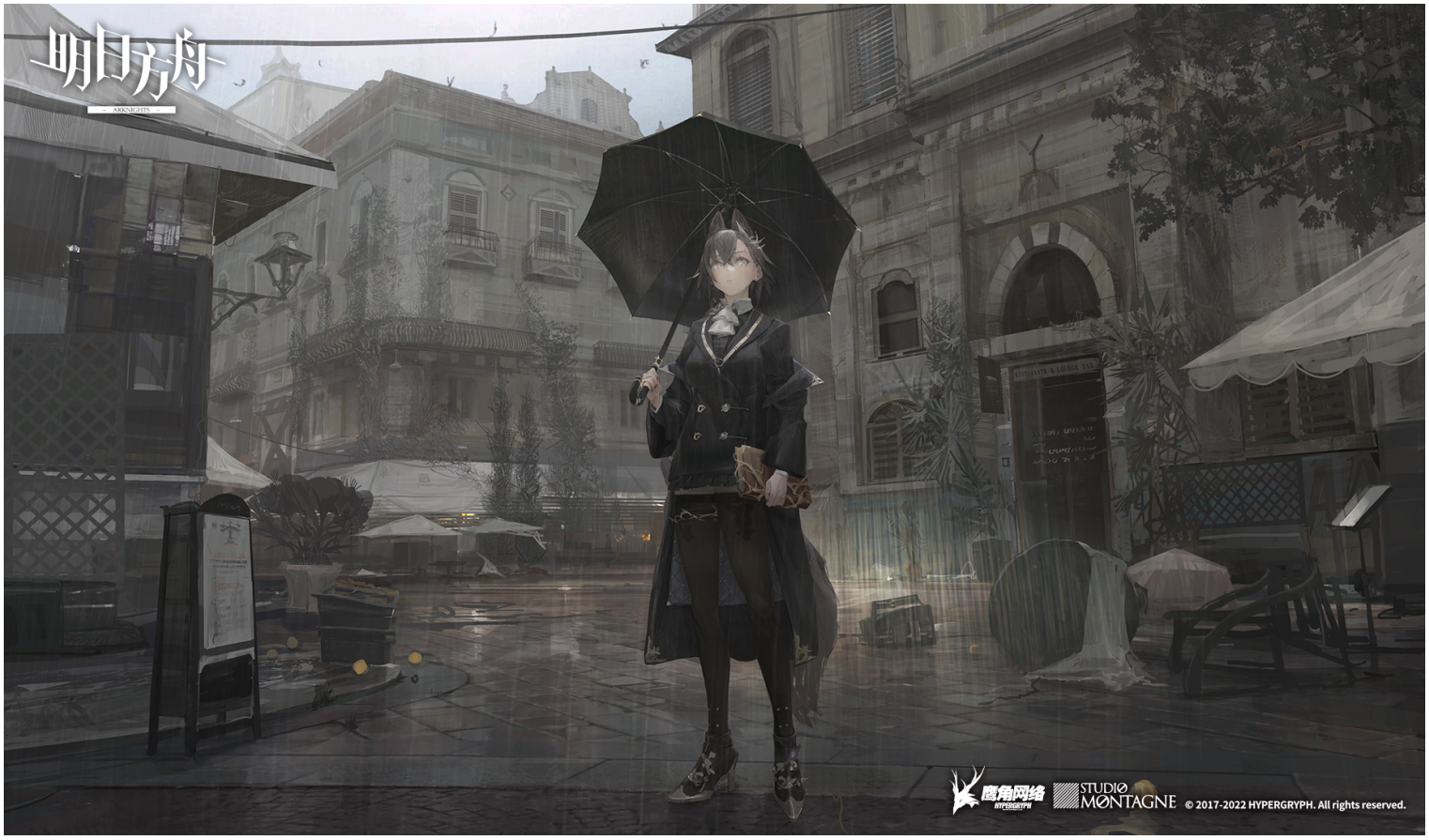
Addendum Pages

Figure 1: Jason Truong Addendum

Bibliography

Cited:

- Lab 1 Manual
- Sedra, Adel, and Kenneth Smith. Microelectronic Circuits. S.L., Oxford Univ Press Us, 2019.



(a) Penance.