Chart, funnel chart

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|  |  |
| Report Title | Voltage Regulator |

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# Introduction

This report is for lab 4 “Wave Shaping Circuit”. The lab took place on 15 Feb 2022. The prelab my TA sent is placed at the end of the report as an Appendix

# Objectives

The objective of this lab was to examine how a circuit can change a signal to a more useful waveform by non linear voltages and currents.

# Circuit Under Test

Diagram, schematic

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Figure 1

The circuit above in Figure 1 shows 4 1N4148 diodes 2 of which connected in reverse bias and the others connected in forward bias with resistors and voltage probes to measure the voltage drops between certain points and ground reference.

Figure 2

# Experimental and Results

E1 Circuit

Chart, scatter chart

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Transient output

A screenshot of a computer

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DC sweep output

Timeline

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E2 Circuit

A picture containing calendar

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Transient Output

A screenshot of a computer

Description automatically generated with medium confidence

DC Sweep output

A picture containing graphical user interface

Description automatically generated

E3 circuit

A picture containing chart

Description automatically generated

Transient Output

A screenshot of a computer

Description automatically generated

DC Sweep output

Graphical user interface

Description automatically generated with medium confidence

# Conclusion and remarks

C1

Chart, line chart

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Based on the shape of the graph the output of a triangular function would be an increasing graph that starts with a slope of 0 and ends with a slope of 0 and crosses the origin.

C2

Chart, line chart

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Chart, line chart

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Graph P1 seems to be slightly shifted to the left

Graph P3b seems a slightly smoother

Both have very similar shapes

C3

Chart, line chart

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Chart, line chart

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All graphs have the same shape and peaks and intersect with the origin.

C4

Chart, line chart

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Graph 1 and 6b look very similar however graph 7 goes to higher peaks and is more straight.

# Appendix – Prelab

Chart

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Chart, line chart

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