ECEN 325 - 512

Operational Amplifiers - Part 3

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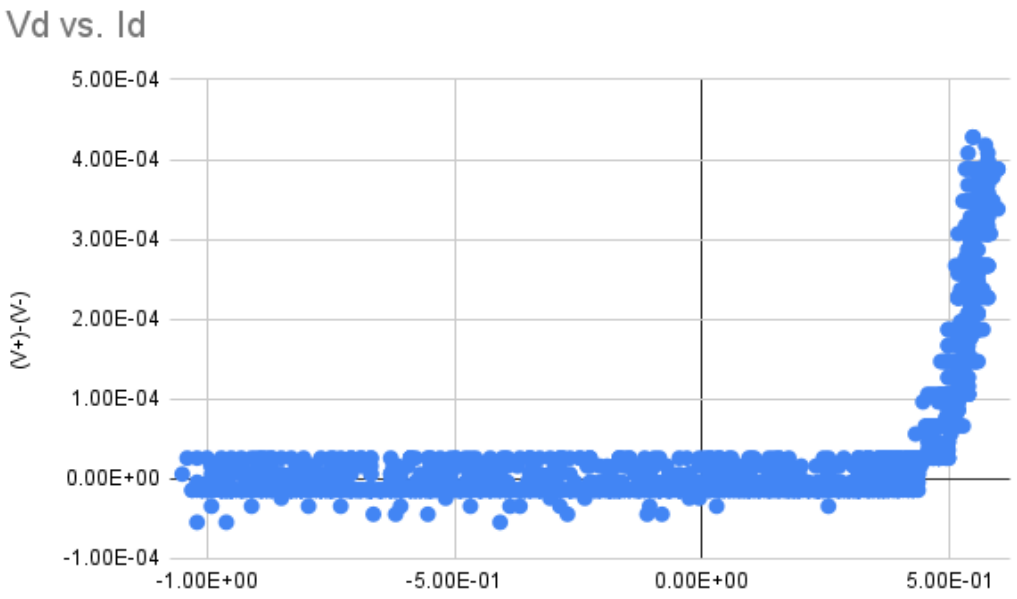
Contributors:

Dominic Treadwell | UIN: 720004254

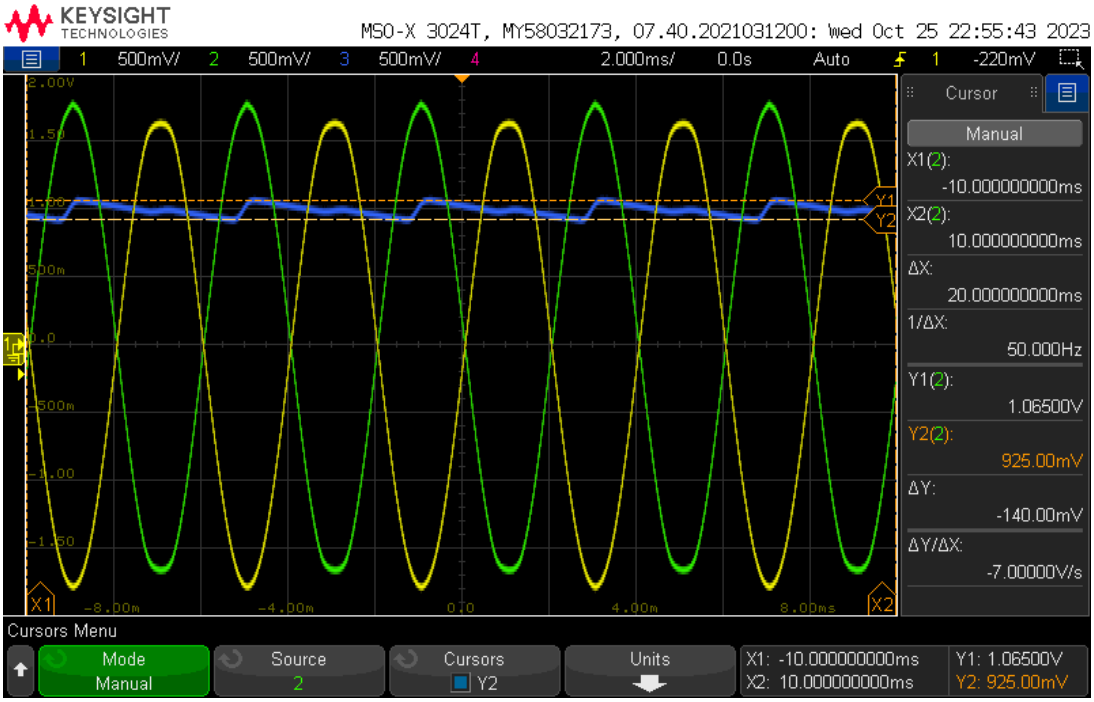
Joaquin Salas | UIN: 731000141

Measurements

1. Applying a ramp signal from -1V to 1V at 1Hz as the input (V_i). Plot I_D as a function V_D.



2. Time-domain waveform for the output voltage.



Data Table:

The provided data table is a good way to organize and present our range of simulated and measured values. This format simplifies the detection of inconsistencies, allows for easy comparison of results across different methods or frequency domains, and ensures transparency and data integrity. By structuring data in this manner, we can efficiently manage and reference our findings, enhancing the clarity and reliability of our work.

	Simulated	Measured
Peak Output	3 V	1.05 V
Maximum Ripple	0.46 V	0.13 V

Results:

In summary, the data we collected during our experiments was of high quality and provided reliable results. The simulated values presented in the tables are essentially three times the values that were recorded in the laboratory. This scaling factor of three indicates that the simulated data was generated by multiplying the original experimental values by a factor of three, potentially for the purpose of comparison, modeling, or analysis. This scaling factor is an important aspect to consider when interpreting the simulated data, as it highlights the relationship between the original measurements and the values presented in the tables, and it may have been applied for various analytical or theoretical reasons.