**Reg. No. 21BCE1297 Name: Vidhi Shah Date of Practical: 02/03/22**

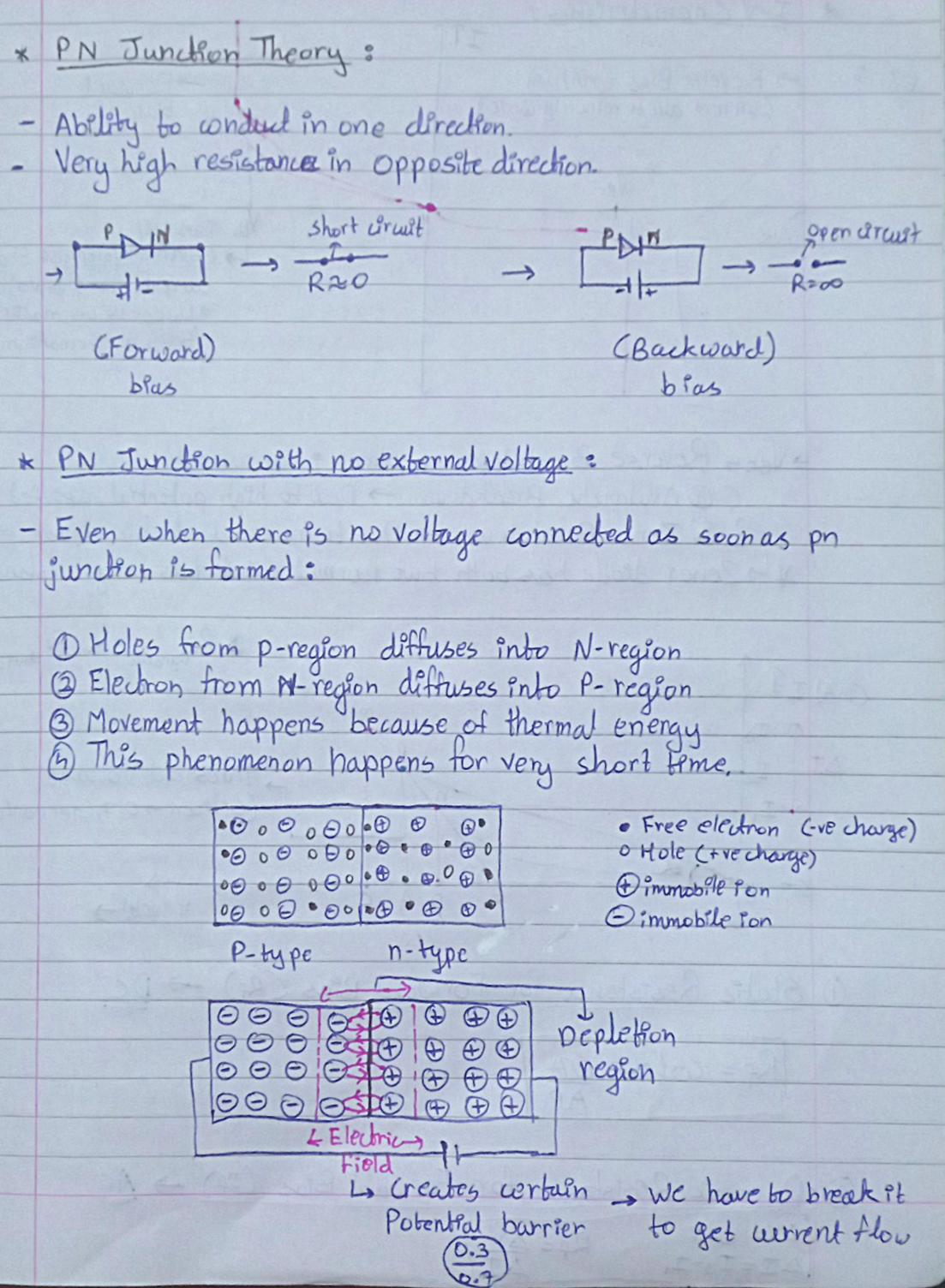
**Experiment 2**

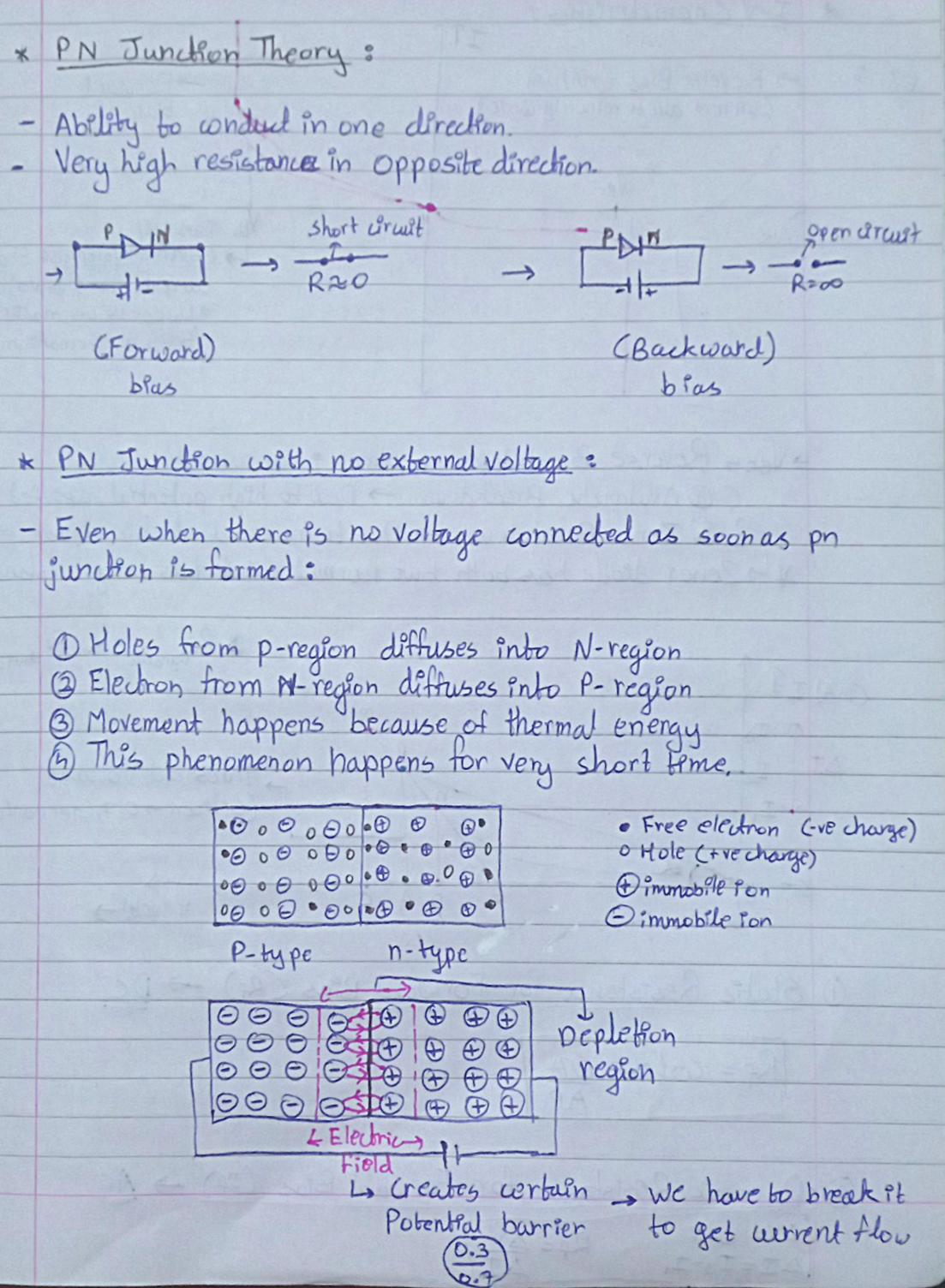
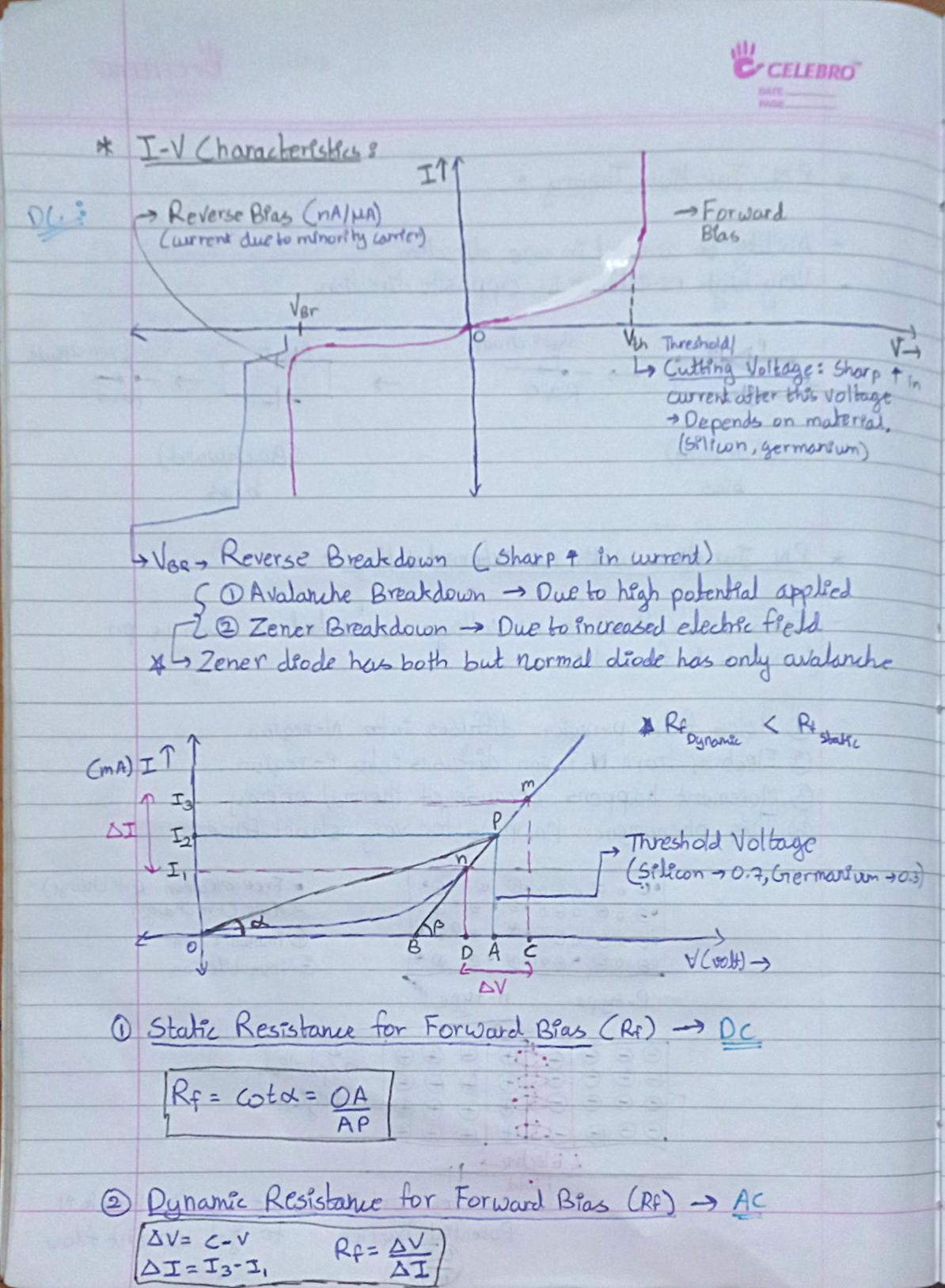
**Aim:**

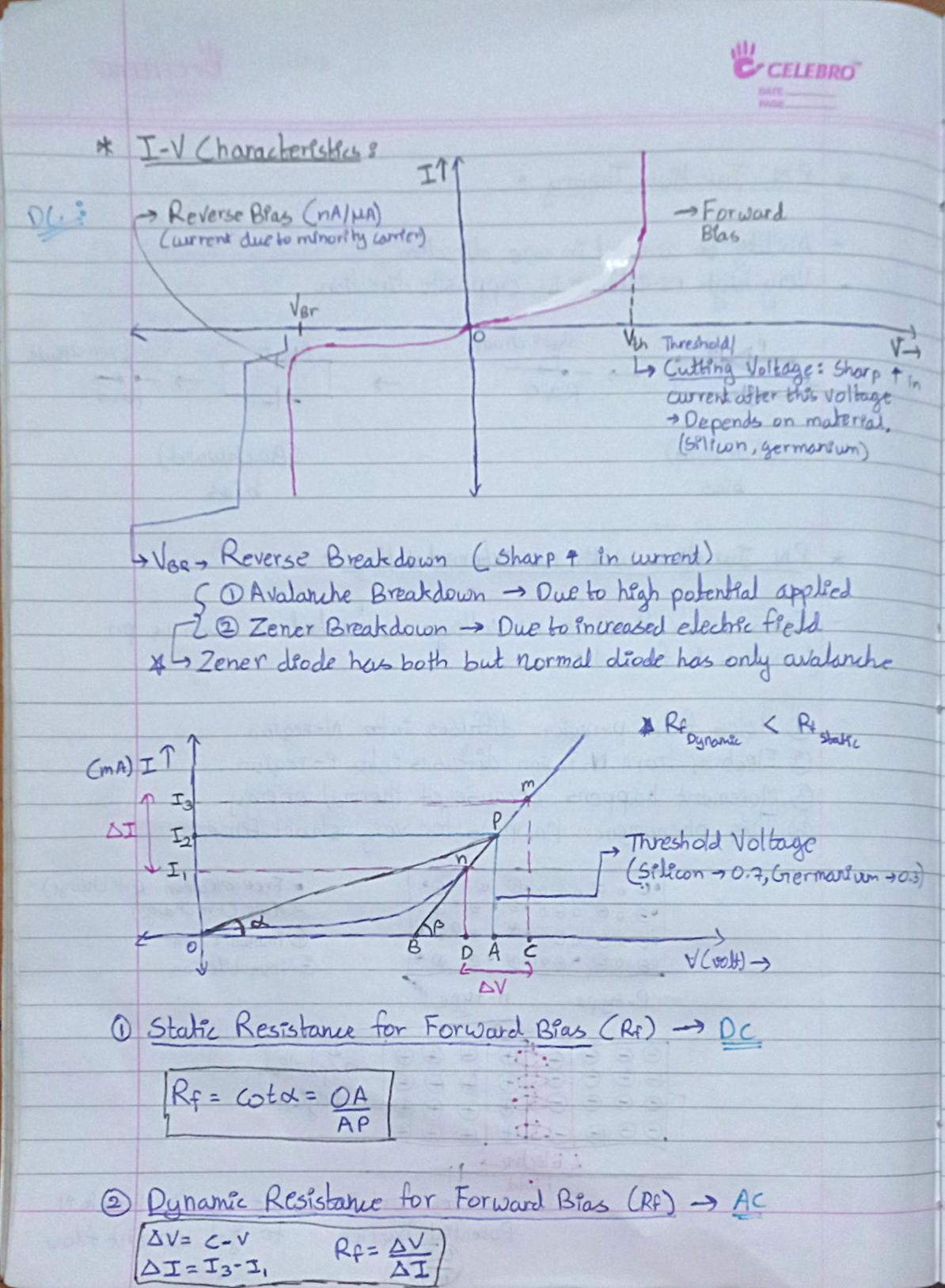
* I-V Characteristics of diode and zener diode.
* Transient analysis of diode for AC source.

**Tools and Apparatus:**

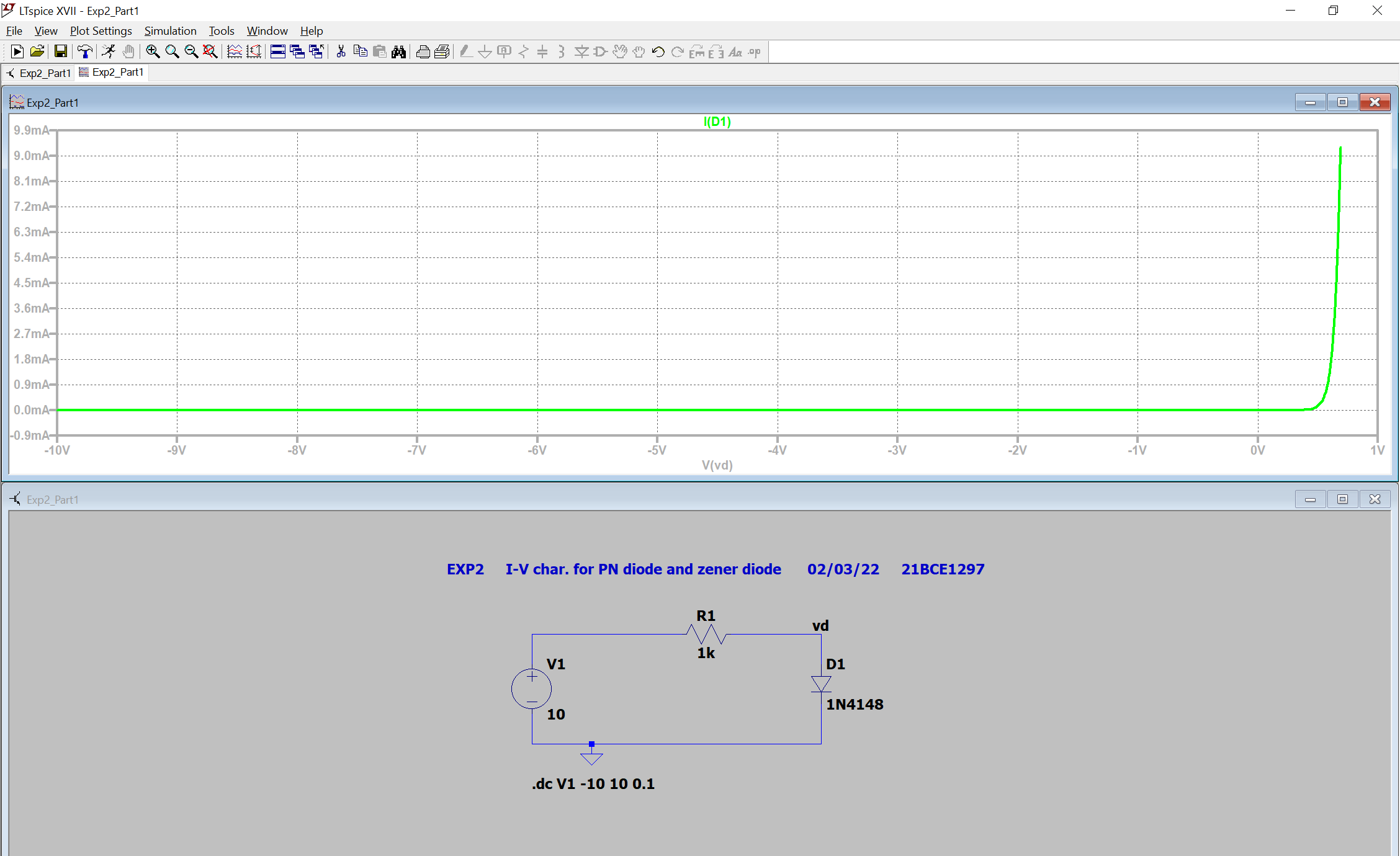
* ­LTSpice
* Diode
* Zener Diode
* Resistor
* AC/DC Source

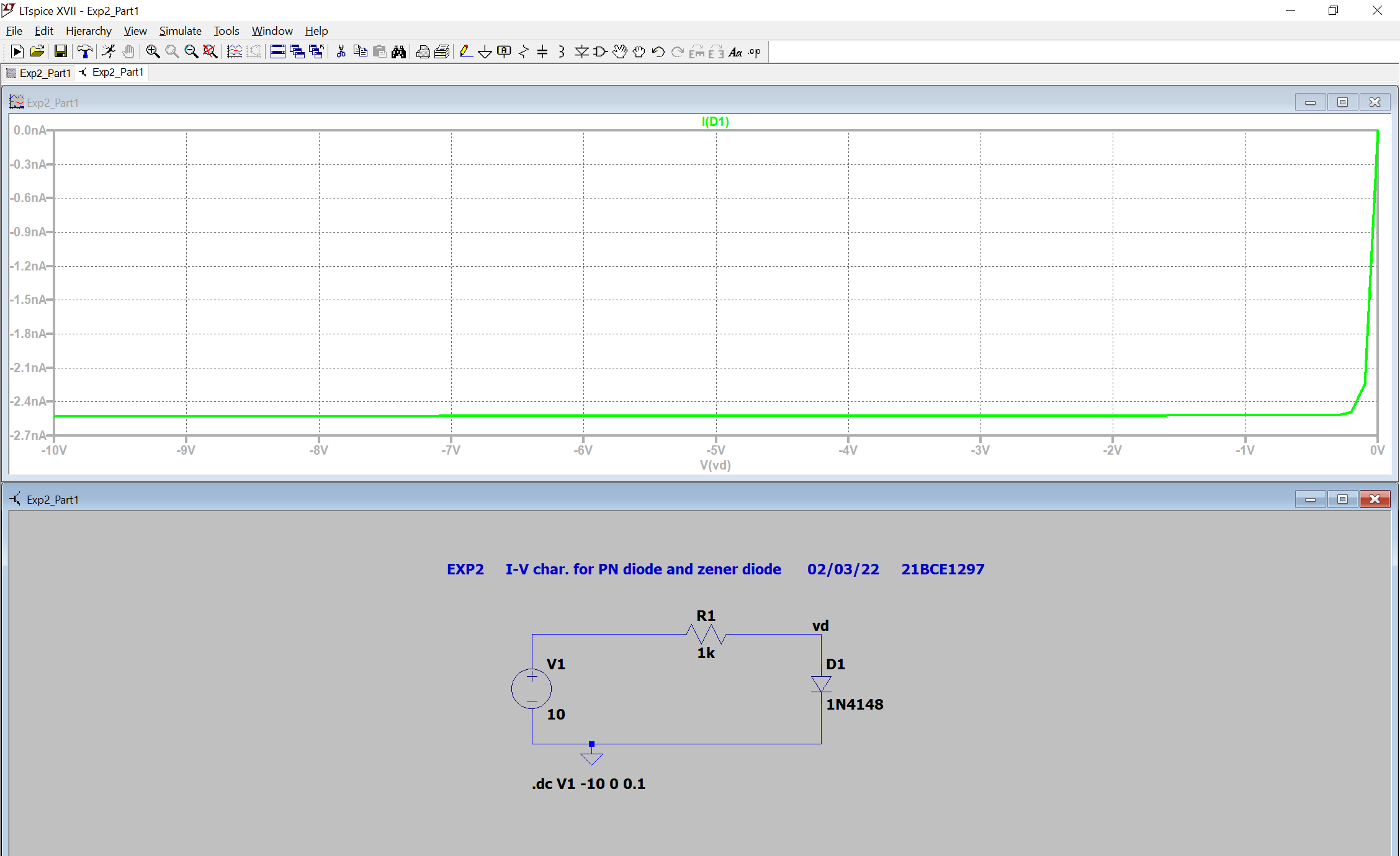
**Theory and Design:**

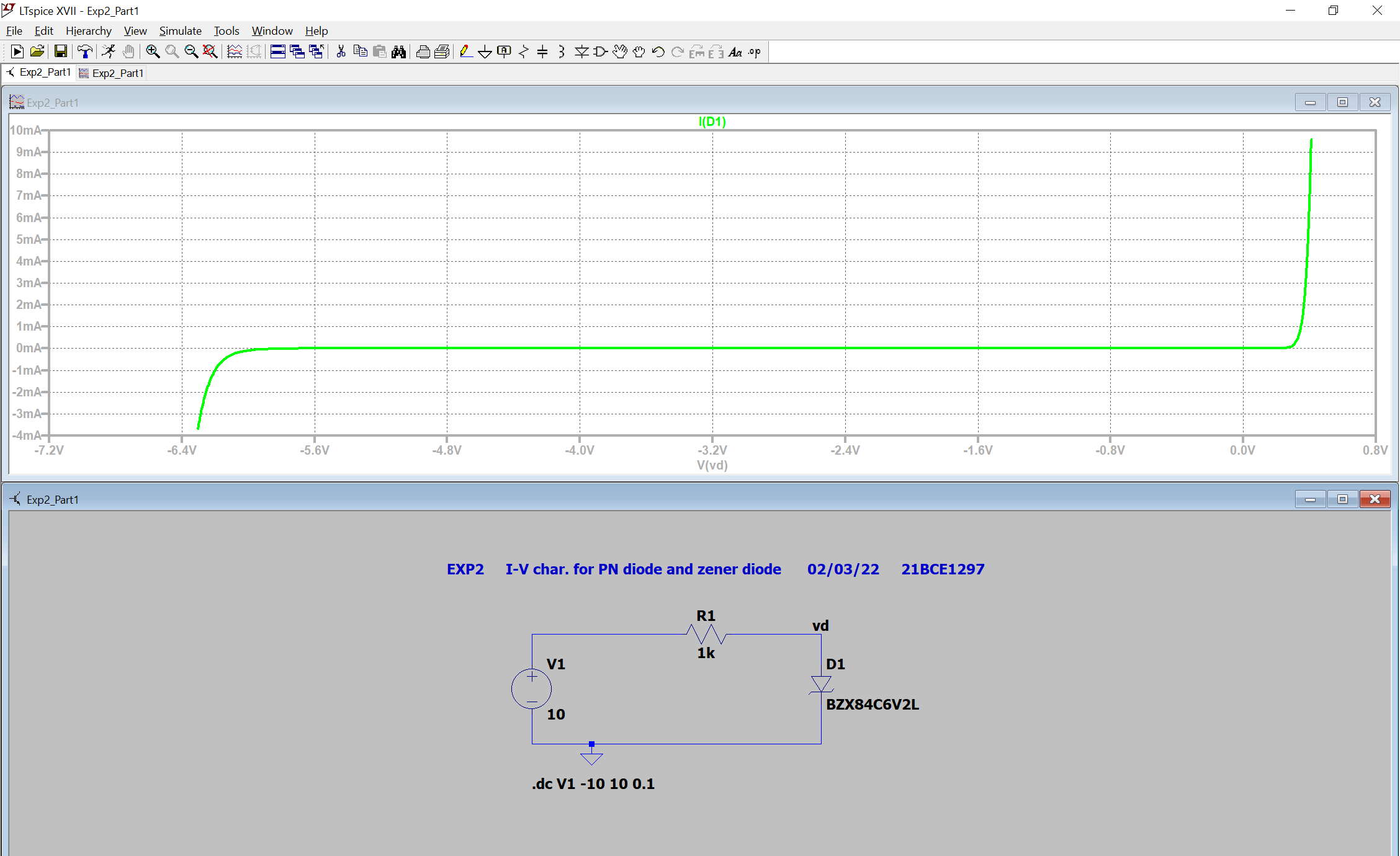
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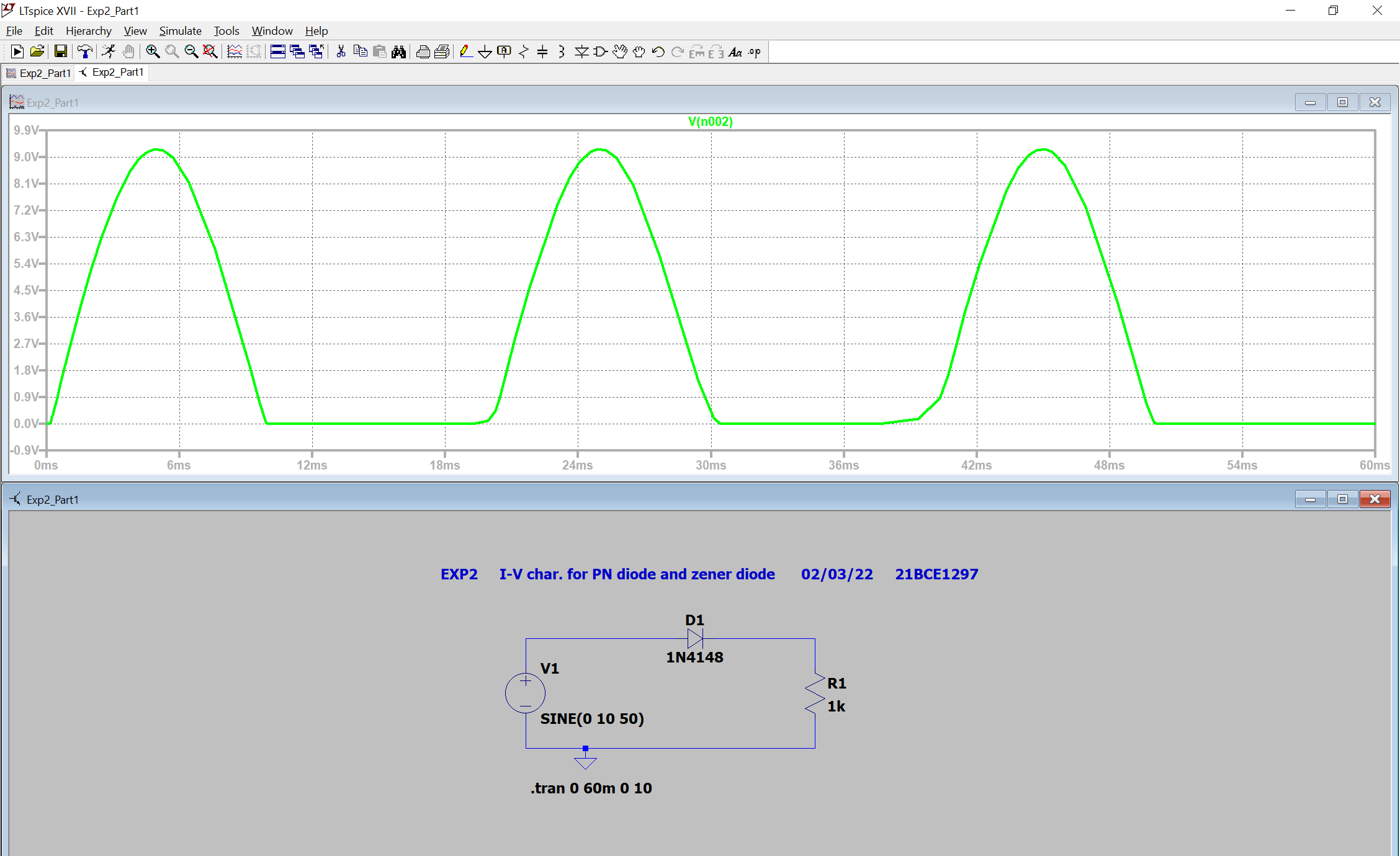
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**Simulation Results:**

****1) Forward Bias

****2) Reverse Bias

****3) Zener Diode

****4) Transient Analysis

**Conclusion:**

**Inferences:**

* Threshold voltage and breakdown voltage for zener diode is clearly visible.
* In transient analysis output is (10V - Threshold Voltage). So it is around 9.3V as threshold voltage is around 0.7 V.
* For static resistance calculate ratio by taking values from linear region and NOT exponential region.
* Label vd properly.