

Assignment Number -02

TEC-101/201 Fundamental of Electronics Engineering
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1. Write a short note on Junction diode. Discuss it's working in detail.
2. Draw the V-I Characteristics for the semiconductor diode. Also explain the breakdown mechanics in the reverse biased region.
3. What are different diode resistance level?
4. Explain Mass Action Law. How can we calculate the number of minority carriers in extrinsic semiconductor if we have the impurity concentration n_d and n_a for n-type and p-type materials respectively?
5. What is depletion layer? Explain the mechanics, how its width increases and decreases as the applied voltage with a neat diagram?
6. Explain the following:
 - a. Knee Voltage
 - b. Peak Inverse Voltage
 - c. Power rating of Junction Diode.