Lecture 19
Outline

Chapter 6  pn Junction Diode: I-V Characteristics

6.1  Ideal Diode Equation

6.1.2  Quantitative Solution Strategy
- General considerations
- Quasi-neutral Region considerations
- Depletion region considerations
- Boundary conditions

6.1.3  Derivation Proper
- General solutions
- Boundary conditions
- I(V_A), I_0

Notes:
1. Pay attention to the many assumptions.
2. The key relation to obtain the quantitative solution is Equation (6.9).
3. Solving the minority carrier diffusion equations is just a simple exercise of what we learned in the previous chapter.

Reading: Chapter 6.1.2