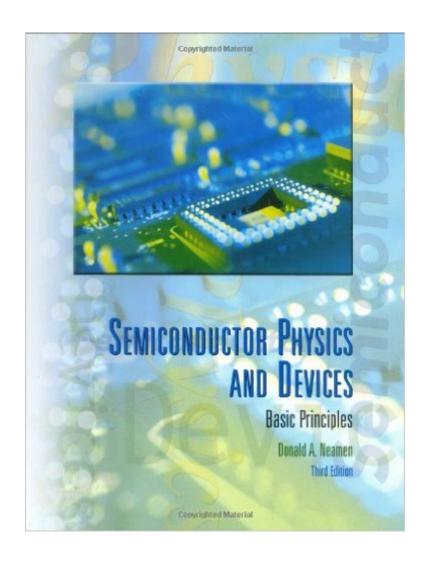
## The book was found

# **Semiconductor Physics And Devices**





### **Synopsis**

Neamen's Semiconductor Physics and Devices, Third Edition. deals with the electrical properties and characteristics of semiconductor materials and devices. The goal of this book is to bring together quantum mechanics, the quantum theory of solids, semiconductor material physics, and semiconductor device physics in a clear and understandable way.

#### **Book Information**

Series: McGraw-Hill Series in Electrical and Computer Engineering

Hardcover: 768 pages

Publisher: McGraw-Hill Science/Engineering/Math; 3 edition (August 22, 2002)

Language: English

ISBN-10: 0072321075

ISBN-13: 978-0072321074

Product Dimensions: 8.3 x 1.3 x 9.4 inches

Shipping Weight: 2.8 pounds

Average Customer Review: 3.5 out of 5 stars Â See all reviews (14 customer reviews)

Best Sellers Rank: #559,525 in Books (See Top 100 in Books) #15 in Books > Engineering &

Transportation > Engineering > Electrical & Electronics > Electronics > Solid State #88 in Books

> Engineering & Transportation > Engineering > Electrical & Electronics > Electronics >

Semiconductors #154 in Books > Science & Math > Physics > Solid-State Physics

#### **Customer Reviews**

This is a really good introduction to the physics of semiconductor devices. It starts right from the basics of molecular structure and quantum mechanics and builds up from there. The only prerequisites needed are high school physics and chemistry, first-year calculus (second-year would help, but definitely isn't necessary), and basic knowledge of electronic circuits (knowledge of how diodes and transistors work in a circuit is not at all necessary). In general this book proceeds in a logical fashion, neither too fast nor too slow. Sufficient detail is given to understand the topics quite fully, yet the reader isn't overwhelmed by detail. Important equations and results are highlighted and sections are divided and organized well. Many examples are given as well as problems after each section with answers provided (but no worked-through solutions). Chapter summaries are among the best I've ever seen in a textbook, and they are supplemented with a Definitions section and Checkpoint section (which is a list of questions meant to make the reader think about the chapter). Something I don't like about the book is that it emphasizes "plug-and-chug" in most of its

problems and examples. By this I mean that all that is needed to solve the problem is to find the right equation, put in the numbers, and produce a solution, often without much thought involved at all. Very few problems require a strong understanding of the material, and actually most would be quite possible for someone who knows nothing about the material by just making an educated guess as to which equation in the chapter would be needed to solve a particular problem.

#### Download to continue reading...

Semiconductor Devices: Physics And Technology, 2Nd Ed Semiconductor Physics And Devices: Basic Principles Semiconductor Physics And Devices Understanding Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering) Principles of Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering) Semiconductor Fundamentals Volume Modular (Modular series on solid state devices) Fundamentals of Semiconductor Devices Semiconductor Optoelectronic Devices (2nd Edition) The Physics of Solar Cells (Properties of Semiconductor Materials) Introductory Semiconductor Device Physics Introduction to Semiconductor Physics Volume 1 The Solid State: An Introduction to the Physics of Crystals for Students of Physics, Materials Science, and Engineering (Oxford Physics Series) US Army Technical Manual, ARMY DATA SHEETS FOR CARTRIDGES, CARTRIDGE ACTUATED DEVICES AND PROPELLANT ACTUATED DEVICES, FSC 1377, TM 43-0001-39, 1991 Advanced Mos Devices (Modular Series on Solid State Devices, Vol 7) ISO 14971:2007, Medical devices -Application of risk management to medical devices Liquid Crystal Devices: Physics and Applications (Artech House Optoelectronics Library) Physics of Photonic Devices Fault-Tolerance and Reliability Techniques for High-Density Random-Access Memories (Prentice Hall Modern Semiconductor Design Series) Semiconductor Material and Device Characterization Semiconductor Photocatalysis: Principles and Applications

**Dmca**