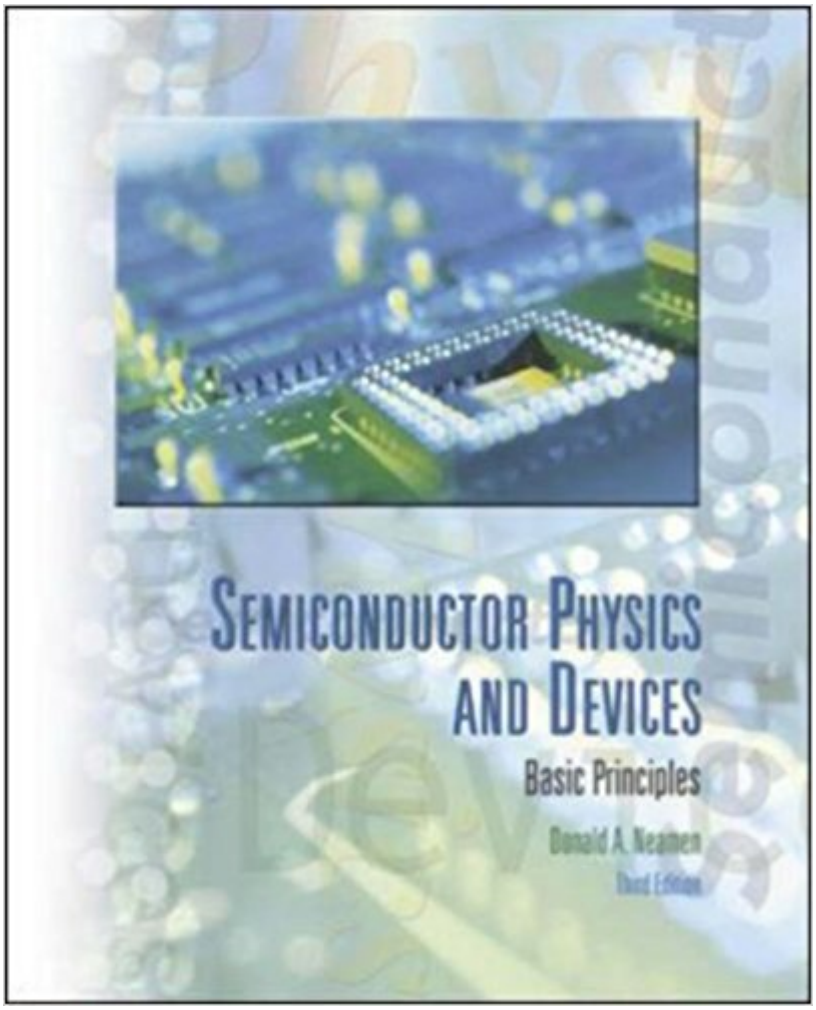
Semiconductor Physics And Devices International Edition



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

Paperback: 746 pages

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Average Customer Review: 3.9 out of 5 stars 14 customer reviews

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Customer Reviews

Product as described, arrived as said and nothing bad to report. Thanks!

When I ordered this I didn’t actually think it would be a new book. It was a completely new book (almost down to the new book smell). For a textbook that’s typically over $100 brand new, this was a steal.

Cover is going to fall off but otherwise is a good buy.

As described, very new and with only a few pencil notes. Kept well. Worth buying the good semiconductor book. great.

There are some formulas which only appear in example problems and never in the text. The questions from the back are organized by subpart but frequently use parts of info "taught" in future

subparts. There are some "standard values" listed in various tables which conflict both those posted in Wikipedia and the ones my instructor uses. The "use this chart to find the value on the curve" are tiny charts with low resolution and ridiculously unusable. The example problems never have units on them making it difficult to follow along. There are constants which are used in examples (and, worse, needed for book questions) which are never discussed at all.But, hey, you don’t have a choice, do you? So just go ahead and buy it.

One of the best semiconductor physic book, I have ever had. It describes visually with graphs and energy diagrams.

Got the international edition. Same content so far, but not the hardback i’d expected. Good price though!

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.I would recommend this book for a 1st- or 2nd-year physics or electronics engineering student, but mostly only if the student intends to pursue a career designing semiconductors at the physical level or researching them. For all other electronics, electrical, and computer engineers this book is slightly

overkill and most engineers will probably never have to deal with the material that is covers. But, those engineers would probably find the material in this book interesting nevertheless.

Semiconductor Physics and Devices International Edition Semiconductor Physics and Applications (Series on Semiconductor Science and Technology) Semiconductor Physics And Devices: Basic Principles Semiconductor Physics And Devices Semiconductor Devices: Physics and Technology Semiconductor Power Devices: Physics, Characteristics, Reliability Physics of Semiconductor Devices Silicon Carbide Biotechnology, Second Edition: A Biocompatible Semiconductor for Advanced Biomedical Devices and Applications Semiconductor Laser Engineering, Reliability and Diagnostics: A Practical Approach to High Power and Single Mode 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 Devices for High-Speed Optoelectronics An Introduction to Semiconductor Devices Microwave Noise in Semiconductor Devices Semiconductor Devices Integrated circuit devices and components (Integrated-circuit technology, analog and logic circuit design, memory and display devices) Prostheses: Design, Types, and Complications (Biomedical Devices and Their Applications; Medical Devices and Equipment) US Army Technical Manual, ARMY DATA SHEETS FOR CARTRIDGES, CARTRIDGE ACTUATED DEVICES AND PROPELLANT ACTUATED DEVICES, FSC 1377, TM 43-0001-39, 1991 ISO 14971:2007, Medical devices - Application of risk management to medical devices ISO 14971:2000, Medical devices -- Application of risk management to medical devices