



## Semiconductor Devices: Physics and Technology International Student Version (Third Edition)

By Ming-Kwei Lee, Simon Sze

Wiley India Pvt. Ltd, 2015. Softcover. Book Condition: New. 3rd edition. This book is an introduction to the physical principles of modern semiconductor devices and their advanced fabrication technology. It begins with a brief historical review of major devices and key technologies and is then divided into three sections- semiconductor material properties, physics of semiconductor devices and processing technology to fabricate these semiconductor devices. Semiconductor Physics Semiconductor Devices Semiconductor Technology Table of Contents Preface Acknowledgments Chapter 0 1 Introduction 0.1 Semiconductor Devices 0.2 Semiconductor Technology Part I Semiconductor Physics Chapter 1 Energy Bands and Carrier Concentration in Thermal Equilibrium 1.1 Semiconductor Materials 1.2 Basic Crystal Structures 1.3 Valence Bonds 1.4 Energy Bands 1.5 Intrinsic Carrier Concentration 1.6 Donors and Acceptors Chapter 2 Carrier Transport Phenomena 2.1 Carrier Drift 2.2 Carrier Diffusion 2.3 Generation and Recombination Processes 2.4 Continuity Equation 2.5 Thermionic Emission Process 2.6 Tunneling Process 2.7 Space-Charge Effect 2.8 High-Field Effects Part II Semiconductor Devices Chapter 3 p-n Junction 3.1 Thermal Equilibrium Condition 3.2 Depletion Region 3.3 Depletion Capacitance 3.4 Current-Voltage Characteristics 3.5 Charge Storage and Transient Behavior 3.6 Junction Breakdown 3.7 Heterojunction Chapter 4 Bipolar Transistors and Related Devices 4.1 Transistor Action 4.2 Static Characteristics of Bipolar Transistors...

**DOWNLOAD**



### Reviews

*This book will never be straightforward to start on reading through but quite enjoyable to learn. Better then never, though i am quite late in start reading this one. Your lifestyle span will probably be convert once you complete reading this publication.*

-- Dr. Kadin Hane DVM

*This publication may be worth purchasing, it was actually written quite flawlessly and valuable. I am just happy to tell you that this is actually the very best book i actually have study inside my personal life and can be the best ebook for actually.*

-- Frank Nienow

## Other Books

---



### [Do This! Not That!: The Ultimate Handbook of Counterintuitive Parenting](#)

Skyhorse Publishing. Paperback / softback. Book Condition: new. BRAND NEW, Do This! Not That!: The Ultimate Handbook of Counterintuitive Parenting, Anna Glas, Ase Teiner, Malou Fickling, There are loads of books covering the basics of getting along with and disciplining children, but...

---



### [The Tale of Jemima Puddle-Duck - Read it Yourself with Ladybird: Level 2](#)

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, The Tale of Jemima Puddle-Duck - Read it Yourself with Ladybird: Level 2, This is a gentle adaptation of the classic tale by Beatrix Potter. Jemima Puddle-Duck wants to lay and hatch her...

---



### [Dom's Dragon - Read it Yourself with Ladybird: Level 2](#)

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Dom's Dragon - Read it Yourself with Ladybird: Level 2, Mandy Ross, One day, Dom finds a little red egg and soon he is the owner of a friendly dragon called Glow! But...

---



### [Peppa Pig: Nature Trail - Read it Yourself with Ladybird: Level 2](#)

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Peppa Pig: Nature Trail - Read it Yourself with Ladybird: Level 2, Peppa Pig and her family are enjoying a nature walk when they get lost. Can Peppa, George, Mummy Pig and Daddy...

---



### [Rumpelstiltskin - Read it Yourself with Ladybird: Level 2](#)

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Rumpelstiltskin - Read it Yourself with Ladybird: Level 2, In this classic fairy tale, a miller's daughter has to spin straw into gold for the king. A funny little man comes to help...

---



### [Peppa Pig: Sports Day - Read it Yourself with Ladybird: Level 2](#)

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Peppa Pig: Sports Day - Read it Yourself with Ladybird: Level 2, Peppa Pig is having fun with her friends at Sports Day, but she is not very good at paying attention during...