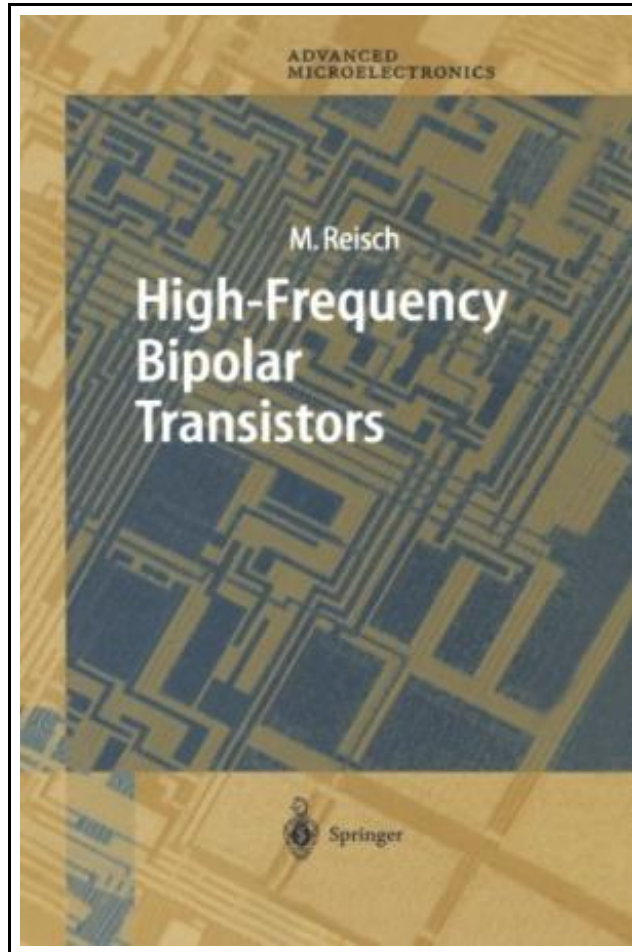


## High-Frequency Bipolar Transistors



Filesize: 8.88 MB

### ***Reviews***

*Here is the best publication i have got go through until now. It is actually writter in simple phrases and never hard to understand. I realized this publication from my dad and i suggested this ebook to find out.*

*(Lorena White)*

## HIGH-FREQUENCY BIPOLAR TRANSISTORS



To read **High-Frequency Bipolar Transistors** PDF, you should follow the button under and save the file or have access to other information that are in conjunction with HIGH-FREQUENCY BIPOLAR TRANSISTORS book.

Book Condition: New. Publisher/Verlag: Springer, Berlin | This modern book-length treatment gives a detailed presentation of high-frequency bipolar transistors in silicon or silicon-germanium technology, with particular emphasis placed on today's advanced compact models and their physical foundations. | '1. An Introductory Survey.- 1.1 History.- 1.1.1 Early Developments.- 1.1.2 The First Transistors.- 1.1.3 Silicon Transistors.- 1.1.4 Integrated Bipolar Transistors.- 1.1.5 Heterojunction Bipolar Transistors.- 1.1.6 CAD, Device Modeling.- 1.1.7 Applications.- 1.2 Devices, Circuits, Compact Models.- 1.2.1 Circuit Elements.- 1.2.2 Nonlinear Network Elements, Small-Signal Description.- 1.2.3 Two-Ports.- 1.2.4 Device Modeling.- 1.3 Semiconductors.- 1.3.1 Electrons and Holes.- 1.3.2 Thermal Equilibrium.- 1.3.3 Drift and Diffusion Currents.- 1.3.4 Generation and Recombination.- 1.3.5 Basic Semiconductor Equations.- 1.4 PN Junctions.- 1.4.1 PN Junctions in Thermal Equilibrium.- 1.4.2 Forward-Biased PN Junction.- 1.4.3 Reverse-Biased PN Junction.- 1.4.4 Stored Charge.- 1.4.5 Switching, Charge-Control Theory.- 1.4.6 Epitaxial Diodes.- 1.5 Bipolar Transistor Principles.- 1.5.1 Modes of Operation.- 1.5.2 Transfer Current.- 1.5.3 Current Gain.- 1.5.4 Transistor Amplifiers and Switches.- 1.5.5 Leakage Currents.- 1.5.6 Voltage Limits, Breakdown.- 1.5.7 Some Differences of Bipolar Transistors and MOSFETs.- 1.6 Elementary Large-Signal Models.- 1.6.1 The Elementary Transistor Model.- 1.6.2 Current-Voltage Characteristics.- 1.6.3 Charge Storage, Charge Control Model.- 1.6.4 Switching Operation.- 1.7 Elementary Small-Signal Models.- 1.7.1 Admittance Parameters.- 1.7.2 Hybrid Parameters.- 1.7.3 T-Equivalent Circuit.- 1.7.4 Frequency Limits.- 1.8 Noise Modeling.- 1.8.1 Noise and Noise Sources.- 1.8.2 Noise Circuit Analysis.- 1.8.3 Noisy Linear Two-Ports, Noise Figure.- 1.8.4 Bipolar-Transistor Noise Equivalent Circuit.- 1.8.5 Input-Referred Noise Sources.- 1.8.6 Noise Figure.- 1.9 Orders of Magnitude.- 1.10 References.- 2. Semiconductor Physics Required for Bipolar-Transistor Modeling.- 2.1 Band Structure.- 2.1.1 Bloch Functions.- 2.1.2 Temperature Dependence of Bandgap and Intrinsic Carrier Density.- 2.2 Thermal Equilibrium.- 2.2.1 Fermi-Dirac and Boltzmann Statistics.- 2.2.2 Ionization.- 2.3 The Boltzmann Equation.- 2.3.1 Collision Term.- 2.3.2 Thermal Equilibrium.- 2.3.3 Limits of Validity.- 2.3.4 Relaxation Times.- 2.4 The Drift-Diffusion Approximation.- 2.4.1 The Relaxation Time...



[Read High-Frequency Bipolar Transistors Online](#)



[Download PDF High-Frequency Bipolar Transistors](#)

## Other PDFs



### [PDF] Violet Rose and the Surprise Party

Access the link listed below to download and read "Violet Rose and the Surprise Party" PDF file.

[Download PDF »](#)



### [PDF] Would It Kill You to Stop Doing That?

Access the link listed below to download and read "Would It Kill You to Stop Doing That?" PDF file.

[Download PDF »](#)



### [PDF] The Clever Detective Boxed Set (a Fairy Tale Romance): Stories 1, 2 and 3

Access the link listed below to download and read "The Clever Detective Boxed Set (a Fairy Tale Romance): Stories 1, 2 and 3" PDF file.

[Download PDF »](#)



### [PDF] ESL Stories for Preschool: Book 1

Access the link listed below to download and read "ESL Stories for Preschool: Book 1" PDF file.

[Download PDF »](#)



### [PDF] TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2)(Chinese Edition)

Access the link listed below to download and read "TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2)(Chinese Edition)" PDF file.

[Download PDF »](#)



### [PDF] TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)

Access the link listed below to download and read "TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)" PDF file.

[Download PDF »](#)