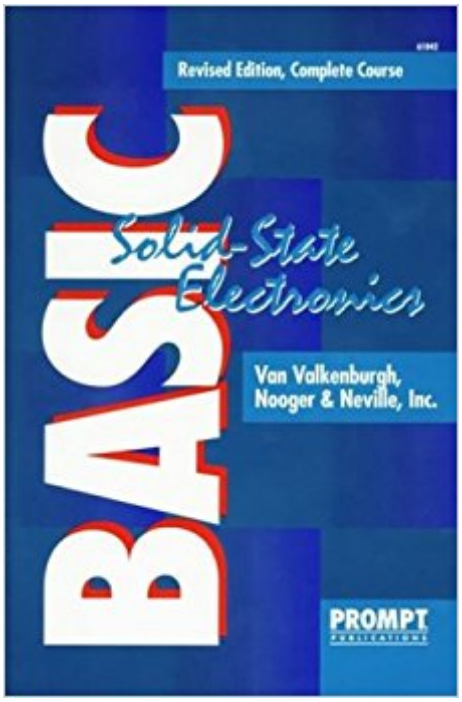
Basic Solid-State Electronics, Complete Course (5 Vols. In 1)



Synopsis

Considered to be one of the best books on solid-state electronics on the market, this revised edition provides the reader with a progressive understanding of the elements that form various electronic systems. Electronic fundamentals covered in the illustrated, easy-to-understand text include semiconductors, power supplies, audio and video amplifiers, transmitters, receivers, and more.

Book Information

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Customer Reviews

Excellent publication. I am very pleased with the content.

BASIC ELECTRONICS (revised edition of 1992) by Van Valkenburgh, Nooger, and Neville, is a book on elementary electronics, suitable for the ages of 12 on up, including adults of all ages. The book has the dimensions, 6 inches X 9 inches X 1.5 inches. Every single page contains a pen & ink drawing. For example, the drawings include the Bohr model of the atom (page 1-4, a cross-section of an insulator showing electrons trying to pass through (page 1-14), drawings of the magnetic fields that surround a magnet and drawings of the magnetic fields that occur when two magnets are near each other, drawings of 3 light bulbs carrying 50, 120, or 220 volts (page 1-49), magnetic fields around a coiled electric wire(page 1-79), drawings of series circuits and of parallel circuits, drawings of sine waves (page 3-17), a diagram of build-up and decay of current in an inductive curcuit (page 3-69), and plenty of circuit diagrams.The beauty of this book, is that where a concept needs to be described, there are descriptions and illustrations of an example, and also descriptions and

illustrations of an alternate example. For example, on page 2-53, there is an illustration of a person measuring the resistance over a single light bulb, and another illustration of the same circuit, where the person measures the resistance over three light bulbs in a series. To repeat, what is excellent about this book is that, where there is a concept that needs to be described, the book describes it using two or more different examples or embodiments.The book is divided into five "volumes." Volume 1 includes these subjects: Conductors, insulators, semiconductors, magnetism, and how a meter works. Volume 2 includes: Electric circuits, Ohm's law, resistance, series circuits, parallel circuits, power. Volume 3 includes: Alternating current, AC meters, inductance in DC and AC circuits, capacitance. Volume 4 includes: AC series circuits, AC parallel circuits, transformers. Volume 5 includes: Generators, and motors, alternators. The level of mathematics is generally that of middle school algebra, though towards the end of the book there is some trigonometry. The book is careful to explain some concepts that might have been missed in high school, such as the concept of vectors (pages 4-8 to 4-11). This is not a "baby book," in view of the fact that the book discloses a number of laws, including Ohm's law (page 2-12 to 2-21), Faraday's law (page 4-91 to 4-92), Thevenin's and Norton's theorem (pages 2-133 to 2-136), and Kirchhoff's first law (pages 2-70 to 2-76). The book always takes a practical approach. For example, in a narrative in how to read meters, the book warns against taking an inaccurate reading by reading at an angle, where on encounters the problem of parallax (pages 1-90 to 1-92).The book was originally published in 1954. The pen & ink drawings have the look and feel of that era. This includes the fact that all of the drawings of electricians look like actor Cary Grant (white men with a cleft chin). I am not sure why this book is not found on the book rack in every convenience store or airplane terminal in the United States. There is just so much fun stuff to learn here -- stuff that is basic to every electronic gadget known to mankind. I recommend this book to any person interested in the biography of electronics inventors, including inventors such as Hans Orsted, Michael Faraday, Thomas Edison, Edwin Armstrong, and Nicola Tesla.

This book is not as good as the authors previous effort Basic Electricity (ISBN 0790610418).The current book is divided into 5 volumes or parts:1. Overview, Basic Concepts, intro semiconductors, power supplies, batteries2. basic amplifiers, audio amplifiers, audio systems, hi-fi, video/if/rf amps + oscillators3. Transmission: radio waves, antennas, AM, FM, TV transmission4. Receivers: antennas, AM. FM, TV, video devices5. digital electronics, computers, microprocessorsBook has lots of diagrams like Basic Electricity but there are many more "block diagram" type drawings. Sometimes they describe what's going on inside the blocks but often these descriptions are too

general or assume too much knowledge on the reader’s part.Basic Electricity was much better that way in that they gave an exhaustive description of how everything worked.Amplifier discussion centers around BJTs with little mention of JFETs or MOSFETs.Not many exercises to do either unlike the revised and updated version of the Basic Electricity book.Good points - parts concerning Troubleshooting are very well done just like in Basic Electricity. Topic coverage is broad. Most electronics books these days barely cover any applications seemingly only paying heed to that great device the "computer". Part 2 covers hi-fi stereo electronics. Very good discussion here.For those who DO want an in-depth discussion get the 24 part series Navy Electricity & Electronics Training Series (NEETS). It’s excellent. It devotes the requisite number of pages to decently cover the topics. found on eBay & on the web.Van Valkenburgh et al. have 2 other books that might be of interest: "Basic synchros and servomechanisms" & "Basic Electronics" both published in 1955. Second book covers vacuum tube based equipment.In short, "Basic Solid State Electronics" is like a travelogue: sure, you get to see the high points but you don’t get enough detail. maybe that’s expecting too much from it.

Yes, 5 stars, but it depends on what you’re looking for. This is a very good intro to Electronics concepts and systems. It doesn’t go into great technical detail, but I find I understand a topic better if I read a book like this first, then progress on to more sophisticated treatments. It gives you a high-level understanding of the topic and keeps you from getting bogged down in the weeds. There are a lot of pages, but it’s a quick read. If you’re fairly new to amplifiers, oscillators, transmitters, receivers, etc., go thru this first, then select something like "Art of Electronics" for the follow-up.

Save your cash, this is a terrible book. It’s just a collection of bad circuits with almost no explanation. Most important topics are just casually covered with insufficient detail. The circuits are confusingly drawn and most are poorly designed. Get a good book like "The Art of Electronics", don’t waste your money like I did, stay away from this one!

Sorry I haven’t read the book - I need to conntact the author re his Old self scoring trainer tester form. Can you help me? Thanks

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