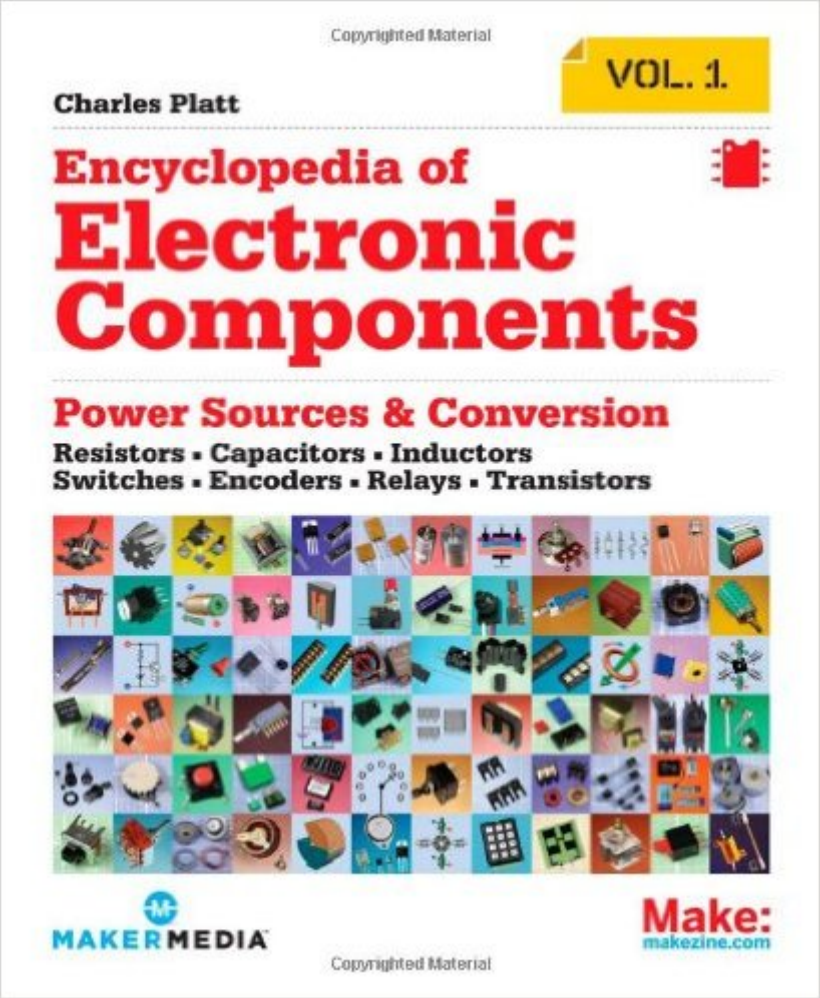
Encyclopedia Of Electronic Components Volume 1: Resistors, Capacitors, Inductors, Switches, Encoders, Relays, Transistors



Synopsis

Want to know how to use an electronic component? This first book of a three-volume set includes key information on electronics parts for your projectsâ ”complete with photographs, schematics, and diagrams. Youâ ™ll learn what each one does, how it works, why itâ ™s useful, and what variants exist. No matter how much you know about electronics, youâ ™ll find fascinating details youâ ™ve never come across before.Convenient, concise, well-organized, and precisePerfect for teachers, hobbyists, engineers, and students of all ages, this reference puts reliable, fact-checked information right at your fingertipsâ ”whether youâ ™re refreshing your memory or exploring a component for the first time. Beginners will quickly grasp important concepts, and more experienced users will find the specific details their projects require.Unique: the first and only encyclopedia set on electronic components, distilled into three separate volumesIncredibly detailed: includes information distilled from hundreds of sourcesEasy to browse: parts are clearly organized by component typeAuthoritative: fact-checked by expert advisors to ensure that the information is both current and accurateReliable: a more consistent source of information than online sources, product datasheets, and manufacturerâ ™s tutorialsInstructive: each component description provides details about substitutions, common problems, and workaroundsComprehensive: Volume 1 covers power, electromagnetism, and discrete semi-conductors; Volume 2 includes integrated circuits, and light and sound sources; Volume 3 covers a range of sensing devices.

Book Information

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Best Sellers Rank: #15,076 in Books (See Top 100 in Books) #2 inÂ Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Semiconductors #5 inÂ Books > Engineering & Transportation > Engineering > Electrical & Electronics > Circuits #9 inÂ Books > Computers & Technology > Computer Science > Robotics

Customer Reviews

As the author states in the Preface, this is not the kind of book you will read from page one till the end. It’s not sequential in that way. But a complete reading would certainly greatly improve your knowledge of these electronic components.Author Charles Platt is a Contributing Editor and regular columnist for O’Reilly Media’s Make: Magazine, where he writes about electronics. If you are looking for more of a tutorial, consider Platt’s introductory hands-on book, Make: Electronics.In this era of immediate access to information from search engines, why do you need a physical book on electronic components? As Platt suggests, the information available online is often inconsistent in quality. Volume 1 (this book - Vol. 2 and 3 are in the works) is thorough and consistently high-quality.The book is broken down into sections for Power (such as battery), Connection (fuse, switch, relay), Moderation (resistor, capacitor, inductor), Conversion (transformer, inverter) Regulation (Voltage regulator) Electromagnetism (solenoid), Rotational (motors) and Discrete Semiconductor (diodes, FETs).Each section has a standard group of information presented. Each starts with other common names and related components. Then there is a What it Does section with photos or drawings and then a How it Works section. The Variants sections may include, for example, the different formats for capacitors. Sticking with the capacitors example, there is then a section on Principal Types of capacitors, Dielectrics, Values associated with the component (farads for capacitors) and a lot more details and variants as the component may have.

Platt’s ’Enc. of Electronic Components’ is a good read, lots of information on the components covered, and strikes a fine balance between underwhelming the knowledgeable and overwhelming those who ’just don’t know.’I wanted to know more about capacitors. Now I have read why I might choose polyethylene over mylar, or tantalum caps over electrolytics. I wanted to know more about coils, inductors, and now there is a little more knowledge to fill the wells of memory there as well.Lots of good information on resistors, capacitors (including the actual schematics for RC high and low pass filters), a little later there are LCR filters, diodes, a variety of diodes and transistor types. There is a very good section on a variety of motors - better here than I expected, so I learned more where I hadn’t thought I would.Platt introduces the volume by suggesting the book will gather enough information to be usable, in one place, effectively ’peer reviewed’ for accuracy and legitimacy, and the book certainly lives up to that aim.In all chapters on components there is a ’what could go wrong’ section; that is what I’m going to add here. My two big complaints have to do with typeface/font selection and the layout of illustrations. The font used for formulae I find hard to read quickly and accurately. Most troublesome is the ’pi’ symbol which quite often I mistake for an ’n’

which I catch because I know the equation - but I can see being caught out. That I would like to see changed. The other complaint is the number of times throughout the book where the text refers to an illustration -- which is on the next page. It sounds like a minor complaint but can be irritating.Those two quibbles aside I’m glad I bought the book.

Encyclopedia of Electronic Components Volume 1: Resistors, Capacitors, Inductors, Switches, Encoders, Relays, Transistors Encyclopedia of Electronic Components Volume 3: Sensors for Location, Presence, Proximity, Orientation, Oscillation, Force, Load, Human Input, Liquid ... Light, Heat, Sound, and Electricity Encyclopedia of Electronic Components Volume 2: LEDs, LCDs, Audio, Thyristors, Digital Logic, and Amplification Encyclopedia of Electronic Components Volume 3: Sensors for Location, Presence, Proximity, Orientation, Oscillation, Force, Load, Human Input, Liquid and ... Light, Heat, Sound, and Electricity Microwave Field-effect Transistors: Theory, Design and Applications (Electronic & Electrical Engineering Research Studies) Broadband Packet Switching Technologies: A Practical Guide to ATM Switches and IP Routers Building SANs with Brocade Fabric Switches RF MEMS Switches and Integrated Switching Circuits (MEMS Reference Shelf) Unscrewed: Salvage and Reuse Motors, Gears, Switches, and More from Your Old Electronics High-Power Optically Activated Solid-State Switches (Artech House Optoelectronics Library) CMOS and Beyond: Logic Switches for Terascale Integrated Circuits High-frequency Bipolar Transistors SiGe, GaAs, and InP Heterojunction Bipolar Transistors (Wiley Series in Microwave and Optical Engineering) Radio Frequency Transistors: Principles and practical applications (EDN Series for Design Engineers) Silicon-Germanium Heterojunction Bipolar Transistors Organic Light-Emitting Transistors: Towards the Next Generation Display Technology (A Wiley-Science Wise Co-Publication) GaN Transistors for Efficient Power Conversion Understanding Modern Transistors and Diodes Waste Electrical and Electronic Equipment (WEEE) Handbook (Woodhead Publishing Series in Electronic and Optical Materials) Volume 16 (Encyclopedia of Taekwon-Do): Supplemental Volume to the Encyclopedia of Taekwon-Do