<<电路分析基础>>

图书基本信息

书名: <<电路分析基础>>

13位ISBN编号:9787121179198

10位ISBN编号:7121179199

出版时间:2012-8

出版时间:电子工业出版社

作者:(美)尼尔森,(美)里德尔 著,张民 改编

页数:396

字数:757000

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

<<电路分析基础>>

内容概要

书由浅入深、系统全面地讲解了电子电路及电子系统的基本元件、基本概念、基本分析理论和计算方法,主要内容包括电路基本元件、简单电阻电路分析、电路常见分析法、运算放大器基本应用电路、一阶和二阶电路的分析、正弦稳态分析及其功率计算、平衡三相电路、选频电路及滤波器等。此外,本书结合多年教学经验和生活中的实际应用,给出了大量例题和习题、详尽的图表资料和丰富的实用电路范例。

<<电路分析基础>>

书籍目录

chapter 1 circuit variables and circuit elements.

- 1.1 circuit analysis: an overview
- 1.2 voltage, current, and the basic circuit elements
- 1.3 the ideal basic circuit element
- 1.4 power and energy
- 1.5 voltage and current sources
- 1.6 electrical resistance (ohmos law)
- 1.7 kirchhoffos laws
- 1.8 analysis of a circuit containing dependent sources

chapter 2 some circuit simplification techniques

- 2.1 source transformations
- 2.2 superposition

chapter 3 techniques of circuit analysis

- 3.1 terminology
- 3.2 introduction to the node-voltage method
- 3.3 the node-voltage method and dependent sources
- 3.4 the node-voltage method: some special cases
- 3.5 introduction to the mesh-current method
- 3.6 the mesh-current method and dependent sources
- 3.7 the mesh-current method: some special cases
- .3.8 the node-voltage method versus the mesh-current method
- 3.9 thvenin and norton equivalents
- 3.10 more on deriving a threnin equivalent
- 3.11 maximum power transfer

chapter 4 the operational amplifier ..

- 4.1 operational amplifier terminals
- 4.2 terminal voltages and currents
- 4.3 the inverting-amplifier circuit
- 4.4 the summing-amplifier circuit
- 4.5 the noninverting-amplifier circuit
- 4.6 the difference-amplifier circuit
- 4.7 the comparator

chapter 5 the natural and step response of rl and rc circuits

- 5.1 the inductor
- 5.2 the capacitor
- 5.3 series-parallel combinations of inductance and capacitance
- 5.4 natural response of rl and rc circuits
- 5.5 step response of rl and rc circuits
- 5.6 the integrating amplifier

chapter 6 natural and step responses of rlc circuits

- 6.1 introduction to the natural response of a parallel rlc
- 6.2 the forms of the natural response of a parallel rlc

<<电路分析基础>>

circuit

- 6.3 the step response of a parallel rlc circuit
- 6.4 the natural and step response of a series rlc circuit chapter 7 sinusoidal steady-state analysis
- 7.1 the sinusoidal source
- 7.2 the sinusoidal response
- 7.3 the phasor
- 7.4 the passive circuit elements in the frequency domain
- 7.5 kirchhoffos laws in the frequency domain
- 7.6 circuit simplifications
- 7.7 the node-voltage method
- 7.8 the mesh-current method
- 7.9 instantaneous, average, and reactive power
- 7.10 the rms value and power calculations
- 7.11 complex power and power calculations chapter 8 balanced three-phase circuits
- 8.1 balanced three-phase voltages
- 8.2 three-phase voltage sources
- 8.3 analysis of the wye-wye circuit
- 8.4 analysis of the wye-delta circuit
- 8.5 power calculations in balanced three-phase circuits
- 8.6 measuring average power in three-phase circuits chapter 9 introduction to frequency selective circuits
- 9.1 some preliminaries
- 9.2 low-pass filters
- 9.3 high-pass filters
- 9.4 bandpass filters
- 9.5 bandreject filters

<<电路分析基础>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com