



Heat Transfer: Thermal Management of Electronics

By Younes Shabany

Download now

Read Online →

Heat Transfer: Thermal Management of Electronics By Younes Shabany

The continuing trend toward miniaturization and high power density electronics results in a growing interdependency between different fields of engineering. In particular, thermal management has become essential to the design and manufacturing of most electronic systems.

Heat Transfer: Thermal Management of Electronics details how engineers can use intelligent thermal design to prevent heat-related failures, increase the life expectancy of the system, and reduce emitted noise, energy consumption, cost, and time to market. Appropriate thermal management can also create a significant market differentiation, compared to similar systems. Since there are more design flexibilities in the earlier stages of product design, it would be productive to keep the thermal design in mind as early as the concept and feasibility phase.

The author first provides the basic knowledge necessary to understand and solve simple electronic cooling problems. He then delves into more detail about heat transfer fundamentals to give the reader a deeper understanding of the physics of heat transfer. Next, he describes experimental and numerical techniques and tools that are used in a typical thermal design process. The book concludes with a chapter on some advanced cooling methods.

With its comprehensive coverage of thermal design, this book can help all engineers to develop the necessary expertise in thermal management of electronics and move a step closer to being a multidisciplinary engineer.

↓ [Download Heat Transfer: Thermal Management of Electronics ...pdf](#)

📄 [Read Online Heat Transfer: Thermal Management of Electronics ...pdf](#)

Heat Transfer: Thermal Management of Electronics

By Younes Shabany

Heat Transfer: Thermal Management of Electronics By Younes Shabany

The continuing trend toward miniaturization and high power density electronics results in a growing interdependency between different fields of engineering. In particular, thermal management has become essential to the design and manufacturing of most electronic systems.

Heat Transfer: Thermal Management of Electronics details how engineers can use intelligent thermal design to prevent heat-related failures, increase the life expectancy of the system, and reduce emitted noise, energy consumption, cost, and time to market. Appropriate thermal management can also create a significant market differentiation, compared to similar systems. Since there are more design flexibilities in the earlier stages of product design, it would be productive to keep the thermal design in mind as early as the concept and feasibility phase.

The author first provides the basic knowledge necessary to understand and solve simple electronic cooling problems. He then delves into more detail about heat transfer fundamentals to give the reader a deeper understanding of the physics of heat transfer. Next, he describes experimental and numerical techniques and tools that are used in a typical thermal design process. The book concludes with a chapter on some advanced cooling methods.

With its comprehensive coverage of thermal design, this book can help all engineers to develop the necessary expertise in thermal management of electronics and move a step closer to being a multidisciplinary engineer.

Heat Transfer: Thermal Management of Electronics By Younes Shabany Bibliography

- Sales Rank: #483489 in Books
- Brand: Brand: CRC Press
- Published on: 2009-12-17
- Original language: English
- Number of items: 1
- Dimensions: 9.75" h x 6.50" w x 1.25" l, 1.28 pounds
- Binding: Hardcover
- 523 pages

 [Download Heat Transfer: Thermal Management of Electronics ...pdf](#)

 [Read Online Heat Transfer: Thermal Management of Electronics ...pdf](#)

Download and Read Free Online Heat Transfer: Thermal Management of Electronics By Younes Shabany

Editorial Review

About the Author

Younes Shabany received his BS in mechanical engineering from Sharif University of Technology in Tehran, Iran, in 1991. He then went to Vancouver, Canada where he obtained his MS in mechanical engineering from the University of British Columbia in 1994. He came to the United States and received a Ph.D in mechanical engineering with a minor in aeronautics and astronautics from Stanford University, California, in 1999. Dr. Shabany has over 18 years of experience in thermal-fluid engineering. He is currently Director of Thermal Engineering & Design and Thermal Architect in Advanced Technology Group at Flextronics International USA, Milpitas, California. In this position, he has been leading thermal design activities in Flextronics' worldwide design centers on a variety of infrastructure, computing, consumer, automobile, medical, and power electronic products. Before Flextronics, he worked for Applied Thermal Technologies, Santa Clara, California, where he was the director for two years. While at Applied Thermal Technologies, he worked with over 60 companies and designed thermal solutions for about as many pieces of electronic equipment including telecom and networking equipment, desktop and laptop computers, biomedical equipment, and consumer products. Dr. Shabany has also been a lecturer at San Jose State University, California, since the summer of 2001. He has taught undergraduate and graduate courses in heat transfer and advanced mathematical analysis including his most favorite course, Heat Transfer in Electronics. He has also advised graduate students on their projects and theses.

Users Review

From reader reviews:

Daisy Richardson:

This Heat Transfer: Thermal Management of Electronics book is not ordinary book, you have after that it the world is in your hands. The benefit you have by reading this book will be information inside this guide incredible fresh, you will get details which is getting deeper a person read a lot of information you will get. That Heat Transfer: Thermal Management of Electronics without we realize teach the one who reading through it become critical in imagining and analyzing. Don't possibly be worry Heat Transfer: Thermal Management of Electronics can bring once you are and not make your tote space or bookshelves' grow to be full because you can have it inside your lovely laptop even mobile phone. This Heat Transfer: Thermal Management of Electronics having excellent arrangement in word along with layout, so you will not sense uninterested in reading.

Desmond Goforth:

The publication with title Heat Transfer: Thermal Management of Electronics possesses a lot of information that you can learn it. You can get a lot of profit after read this book. This kind of book exist new know-how the information that exist in this e-book represented the condition of the world right now. That is important to you to be aware of how the improvement of the world. That book will bring you with new era of the global growth. You can read the e-book on your own smart phone, so you can read that anywhere you

want.

Raymond Langford:

This Heat Transfer: Thermal Management of Electronics is new way for you who has fascination to look for some information given it relief your hunger associated with. Getting deeper you into it getting knowledge more you know otherwise you who still having bit of digest in reading this Heat Transfer: Thermal Management of Electronics can be the light food in your case because the information inside this book is easy to get simply by anyone. These books create itself in the form which can be reachable by anyone, yes I mean in the e-book type. People who think that in publication form make them feel tired even dizzy this guide is the answer. So there isn't any in reading a publication especially this one. You can find what you are looking for. It should be here for you. So , don't miss that! Just read this e-book variety for your better life in addition to knowledge.

Manuel Porter:

A lot of guide has printed but it is unique. You can get it by online on social media. You can choose the best book for you, science, comedy, novel, or whatever simply by searching from it. It is identified as of book Heat Transfer: Thermal Management of Electronics. You can contribute your knowledge by it. Without making the printed book, it can add your knowledge and make anyone happier to read. It is most important that, you must aware about publication. It can bring you from one place to other place.

Download and Read Online Heat Transfer: Thermal Management of Electronics By Younes Shabany #RWAIO85P9FB

Read Heat Transfer: Thermal Management of Electronics By Younes Shabany for online ebook

Heat Transfer: Thermal Management of Electronics By Younes Shabany Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Heat Transfer: Thermal Management of Electronics By Younes Shabany books to read online.

Online Heat Transfer: Thermal Management of Electronics By Younes Shabany ebook PDF download

Heat Transfer: Thermal Management of Electronics By Younes Shabany Doc

Heat Transfer: Thermal Management of Electronics By Younes Shabany Mobipocket

Heat Transfer: Thermal Management of Electronics By Younes Shabany EPub