Michael Bragard The Integrated Emitter Turn-Off Thyristor An Innovative MOS-Gated High-Power Device Molybdenum Copper gate pin Wafer Anode plate (Cu) PCB Copper frame Direct FETs Disc springs Cathode plate (Cu)

The Integrated Emitter Turn-Off Thyristor

Filesize: 6.91 MB

Aachener Beiträge des ISEA Band 62

Reviews

This publication is fantastic. It is one of the most amazing publication i have got study. I am just pleased to explain how this is actually the best pdf i have got read through in my individual lifestyle and could be he finest publication for possibly.

(Mr. Kristoffer Hills)

THE INTEGRATED EMITTER TURN-OFF THYRISTOR



Shaker Verlag Jul 2012, 2012. Taschenbuch. Book Condition: Neu. Neuware - This thesis introduces the Integrated Emitter Turn-Off (IETO) Thyristor as a new high-power device. Known state-of-the-art research activities like the Dual GCT, the ETO thyristor and the ICT were presented and critically reviewed. A comparison with commercialized solutions identifies the pros and cons of each type of device family. Based on this analysis, the IETO structure is proposed, covering most benefits of each device class. In particular the combination of a MOS-assisted turn-off with a thyristor-based device allows a voltage-controlled MOS switching and the low onstate voltage of the thyristors. The following synthesis of an IETO device stands on a three-dimensional field of optimization spanned by electric, mechanical and thermal aspects. From an electric point of view, the lowest possible parasitic inductance and resistance within the commutation path are optimization criteria. The mechanical construction has to withstand the required contact pressure of multiple kilo Newtons. Finally, thermal borders limit the maximum average current of the device. FEM simulations covering these three aspects are performed for several design proposals. An IETO prototype is constructed and measurements on various test benches attest thermal, mechanical and electric performance. A local decoupling of the external driver stage and the presspack housing is presented by a cable connection. This separation enables a thermal and mechanical independence, which is advantageous in terms of vibrations and thermal cycles including increased reliability. The electric pulse performance of the prototype device is a factor of 3.1 above today's solutions. In single-pulse measurements, a current up to 1600 A was successfully turned off at 115°C with an active silicon area of 823 mm. One reason for this increased turn-off capability is the extremely low-inductive construction. Additional functionality of the IETO thyristor like over-current self-protection and defined shortcircuit failure...



Read The Integrated Emitter Turn-Off Thyristor Online
Download PDF The Integrated Emitter Turn-Off Thyristor

Related Books



Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

Save ePub »



My Friend Has Down's Syndrome

Barron's Educational Series Inc., U.S. Paperback. Book Condition: new. BRAND NEW, My Friend Has Down's Syndrome, Jennifer Moore-Mallinos, Younger children are normally puzzled when they encounter other kids who suffer from Down's Syndrome. Here is a...

Save ePub »



Children's Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]

Createspace, United States, 2013. Paperback. Book Condition: New. 254×178 mm. Language: English . Brand New Book ***** Print on Demand *****. ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

Save ePub »



Children's Educational Book Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius Age 7 8 9 10 Year-Olds. [British English]

Createspace, United States, 2013. Paperback. Book Condition: New. 248 x 170 mm. Language: English . Brand New Book ***** Print on Demand *****. ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

Save ePub »



Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age

Adams Media Corporation. Paperback. Book Condition: new. BRAND NEW, Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age, David Dutwin, TV. Web Surfing. IMing. Text Messaging. Video...

Save ePub »



Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 52 pages. Dimensions: 9.0in. x 6.0in. x 0.1in.Still finding it getting your way around your Kindle Fire Wish you had

Save Document »



The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program

Brookes Publishing Co, United States, 2015. Paperback. Book Condition: New. 274 x 213 mm. Language: English . Brand New Book. Filled with tips, tools, and strategies, this book is the comprehensive, practical toolbox preschool administrators

Save Document »



The Turn of the Screw

Dover Publications Inc., United States, 2013. Paperback. Book Condition: New. Reprinted edition. 202 x 128 mm. Language: English. Brand New Book. For lucidity and compactness of style, James s short novels, or novelles, are

Save Document »



Federal Court Rules: 2012

Createspace, United States, 2012. Paperback. Book Condition: New. 244 x 188 mm. Language: English . Brand New Book ***** Print on Demand *****. Superseded by 2013 Edition. This title is available, but should be relied upon

Save Document »



New KS2 English SAT Buster 10-Minute Tests: Grammar, Punctuation & Spelling (2016 SATs & Beyond)

Coordination Group Publications Ltd (CGP). Paperback. Book Condition: new. BRAND NEW, New KS2 English SAT Buster 10-Minute Tests: Grammar, Punctuation & Spelling (2016 SATs & Beyond), CGP Books, CGP Books, This book of SAT Buster

Save Document »