



## Experimental and numerical study on heat transfer problems in microelectronic devices

By Helmut Köck

Shaker Verlag Dez 2013, 2013. Buch. Book Condition: Neu. 214x151x22 mm. Neuware - Today, power semiconductor products are increasingly used to enhance energy efficiency, safety as well as comfort and convenience in automotive and industrial applications. These requirements ask for particularly high robustness and reliability in a market environment where the best technical solutions are challenged by high cost pressure. At the 'Kompetenzzentrum für Automobil- und Industrieelektronik GmbH (KAI)' several groups search for solutions to improve the robustness and reliability of power semiconductor devices. The goal of the engineering group is to study the long term behavior of power devices in the challenging automotive and industrial environment. Supported by proprietary test systems for accelerated testing developed and operated at KAI [77,79], power devices are tested in parallel under extreme electrical and thermal stress conditions. End-of-life data of several of hundreds of devices per month are the basis for statistical analysis. Using these experimental lifetime data, statistical methods (i.e. Bayesian approaches) are applied to evaluate existing data and further provide forecasts in order to reduce test time and costs [22,23]. At the same time, the physical device characterization group as well as the simulation group are acquiring advanced knowledge regarding destruction...



**READ ONLINE**  
[ 3.12 MB ]

### Reviews

*A whole new eBook with a new point of view. It can be rally fascinating through studying period of time. I am delighted to explain how this is actually the finest book i have read through during my very own life and could be he best publication for at any time.*

*-- Scarlett Stracke*

*Complete information for ebook fans. It is actually full of knowledge and wisdom I am pleased to inform you that this is basically the very best pdf we have read through inside my very own daily life and can be he very best ebook for ever.*

*-- Gideon Morissette*