



# IGBT Modules

Technologies, Driver and Application

Andreas Volke  
Michael Hornkamp

The arrival and consistent development of MOS-controlled power semiconductor components has helped the entire field of power electronics towards a breakthrough regarding high power density and system efficiency. It has also improved reliability and made economical technical solutions possible. The key technology, facilitating the wide power range of a few hundred watts to the region many megawatts, has been the IGBT. The aim of this book is to make the basics specific to IGBT as they interact with the application accessible to readers. This book will provide students of power electronics with valuable information about the main contemporary power semiconductor components and their application while development engineers targeting power electronic converters will find all the essentials of selecting, dimensioning and applying IGBT modules laid out clearly and comprehensively.



Andreas Volke studied Electrical Energy Technologies at Soest University of Applied Sciences. After working as a hardware and software development engineer, he was employed by Siemens in 1997 as commissioning engineer in worldwide deployment. In 2003 he joined Infineon Technologies as an application engineer for IGBT modules and IGBT drivers. He then managed application engineering in the Asia Pacific region, covering industrial and consumer applications. In 2011 he took over the position of Senior Manager Stack Development. He has been Senior Manager System Engineering at CONCEPT/Power Integrations GmbH in Germany since 2012.



Michael Hornkamp studied Electrical Energy Technologies at Soest University of Applied Sciences and worked as a project engineer in Taiwan and China. This was followed by a position as development engineer for servo drives at Stromag Elektronik in Germany. In 2000 he joined Infineon Technologies where he was responsible for the application engineering group of IGBT modules and IGBT driver and later became Manager Technical and Product Marketing for medium power IGBT modules. He has been Technical Marketing Director at CONCEPT in Switzerland since 2009. In addition he became Managing Director CONCEPT/Power Integrations GmbH in Germany in 2012.

