



NEW! Abc of Power Modules

Functionality, Structure and Handling of a Power Module

Basics

This chapter describes the need of a DC/DC voltage converter and its basic functionality. Furthermore, various possibilities for realizing a voltage regulator are presented and the essential advantages of a power module are mentioned.

Circuit Topologies

Circuit concepts, buck and boost topologies very frequently used with power modules are explained in detail and further circuit topologies are introduced.

Technology, Construction and Regulation Technology

The mechanical construction of a power module is presented, which has a significant influence on EMC and thermal performance. Furthermore, control methods are explained and circuit design tips are provided in this chapter.

Measuring Methods

Meaningful measurement results are absolutely necessary to assess a power module. The relevant measurement points and measurement methods are described in this chapter.

Handling

The aspects of storage and handling of power modules are explained, as well as their manufacturing and soldering processes.

Selection of a Power Module

Important parameters and criteria for the optimal selection of a power module are presented in this section.

Chapter extracts