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High-power inverter control integrated circuit

High-voltage power inverter control to drive electric vehicle traction motors and DC to DC converters targeting ISO 26262 ASIL D safety.

SiC is turned off later and Toff_delay is set to minimize turn-off losses (IGBT commuting in ZVS).

Using the proposed method, it is easy to access the gate drive circuit and the insulation configuration becomes robust and simple compared with conventional systems.

SG3525A is a voltage type PWM integrated controller. It has advantages of less external components, good performance, including all required switching regulator control circuit.

The high performance and reliability of the UCC23513, along with its stretched SO-6 package, > 8.5-mm clearance and creepage makes it suitable for inverter applications in motor drive, solar, industrial ...

Abstract: When driving an IGBT in a high-voltage inverter, the gate drive circuit requires high insulation for both the control signal and the power supply circuit.

During the development of an inverter, control- and power section have to interact smoothly. Highest performance can be achieved by combining smart software with cutting-edge semiconductors and ...

This design guide reviews HEV/EV architectures, the failure modes of the traction inverter system, and how the gate driver and surrounding circuits can be used to enhance the reliability of the system.

Infineon"s industry-leading discrete IGBTs are compatible with Empower"s latest generation inverter in terms of packaging. Together with the high current density, ultra-low saturation voltage drop and ...

This control methodology finds application in an inverter integrated within a high-power Inductive Power Transfer (IPT) system. The proposed approach entails the design of a virtual impedance-based ...

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