

Ultra-high voltage inverter igbt



Overview

This is a lineup of HV (High Voltage) IGBT modules that provide size reduction of the drive circuit, weight reduction of the system, and improved efficiency, allowing use in power electronics equipment, such as traction and large industrial machines which require high voltage and large current.



Article Content

New IGBT Designs Close Performance Gap with GaN Transistors

Feb 1, 2018 · Insulated gate bipolar transistor (IGBT) devices are vital components in high performance power conversion (HPPC) circuitry. While power MOSFETs are generally used ...

Insulated Gate Bipolar Transistors Market Size, ...

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600V IGBT

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3-phase IGBT-inverter

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Inverter generation 4

The main function of inverters is to control the electric motor and provide the connection to the high-voltage battery. SiC MOSFETs have a higher switching ...

High Voltage Traction Inverter Application Presentation

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High-Performance Inverters Powered by Latest IGBT Modules

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The most typical application scenario of IGBTs is a photovoltaic inverter, which requires a large number of high-voltage and ultra-high-voltage IGBT modules to convert the fluctuant electricity ...

IGBTs – Insulated gate bipolar transistors

IGBTs – Insulated gate bipolar transistors Maximize efficiency with Infineon's IGBT bare dies, discretes, press packs, and power modules in various voltage and current classes

Si IGBT/SiC MOSFET Hybrid Power Switches Application ...

Apr 22, 2025 · Industry relevance The hybrid power switch combining Si IGBT and SiC MOSFET technology is highly relevant in industries that demand high efficiency, robust power handling, ...

High Voltage IGBT Power Semiconductor Module

HIITIO High Voltage IGBT Modules range from 3300V to 6500V, supporting up to 3600A, ideal for traction drives, motor control, smart grids, and high-reliability inverters.

Solar inverters ABB central inverters ULTRA ...

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CSTBT™ technology for high voltage applications with high dynamic ...

Jul 1, 2020 · This paper discusses the edge termination design of high-voltage insulated gate bipolar transistors with large current turn-off switching operation. W...

High Voltage IGBT Modules/HVIPM

- Power loss reduced by incorporating 7th-generation IGBT and RFC*1 diode - Industry-leading power*2 for increased inverter capacity - The new chip set's ...

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Mar 24, 2021 · 1. Introduction Parasitic effects such as stray inductance and diodes' reverse recovery characteristics are the main obstacles to achieving high switching frequencies for ...

Infineon high voltage Inverter Application Presentation

May 25, 2025 · 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 ...

Next Generation SiC EV Inverter with Ultra-High Efficiency and Voltage ...

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How to Use IGBT in Inverter: The Right Way to Handle High ...

Learn the correct methods for using IGBT in inverter circuits to manage high power efficiently and safely.

High Voltage IGBT

Jun 16, 2025 · We offer a lineup of HVIGBT modules to meet market requirements for higher efficiency, downsizing and weight reduction, and smaller drive circuits in systems for power ...

HV Power MOSFETs: The latest technologies and trends ...

Jun 30, 2020 · High-voltage power MOSFETs: the latest technologies and trends for your automotive applications STMicroelectronics

IGBT modules | Infineon Technologies

Infineon's industrial and power control IGBTs are designed with superior current capability and higher pulse load capacity for enhanced robustness. The IGBTs can withstand voltages up to ...

High Voltage IGBT Modules in the 3300 V Class

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Ultra Fast NPT

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Research on the Application of the High-Power SiC& Si ...

Dec 3, 2024 · This paper primarily discusses the hybrid application technology of high-voltage SiC MOSFETs and IGBTs in high-power three-level, three-phase inverters. It thoroughly utilizes ...

6500 V X-Series High Voltage IGBT Modules

May 6, 2024 · 6500 V X-Series High Voltage IGBT Modules The 6500 V X-Series high current IGBT power module breaches the technological barrier for operating at 150 °C junction ...

How to reduce system cost in a three-phase IGBT-based ...

Aug 1, 2023 · Most three-phase inverters use insulated gate bipolar transistors (IGBTs) in applications like variable-frequency drives, uninterruptible power supplies, solar inverters and ...

HV-IGBT Module for High-Performance Inverter Design

Aug 16, 2025 · To meet growing demands for energy-efficient and reliable inverter systems in traction applications, Mitsubishi Electric has introduced the XB-Series high-voltage IGBT ...

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