Market News

New 650 V CoolSiC™ Hybrid Discrete for Automotive enables performance boost for fast switching On-Board Charger applications

Munich, Germany – 5 March 2021 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) has launched the 650 V CoolSiC™ Hybrid Discrete for Automotive. The device contains a 50 A TRENCHSTOP™ 5 fast-switching IGBT and a CoolSiC™ Schottky diode to enable a cost-efficient performance boost as well as high reliability. This combination builds a perfect cost-performance trade-off for hard-switching topologies and supports high system integrity in addition to bi-directional charging. This makes the device ideal for fast switching automotive applications such as On-Board Chargers (OBC), Power Factor Correction (PFC), DC-DC and DC-AC converters.

The integrated fast-switching 50 A IGBT enables MOSFET-like turn-off behavior outperforming pure silicon solutions. In contrast to regular silicon carbide MOSFETs, the plug-and-play solution for a fast time-to-market achieves 95 to 97 percent system efficiency at a lower cost level. Furthermore, the CoolSiC™ Schottky diode supports reduced turn-on and recovery losses. In comparison to pure silicon designs, the device is ideal for hard commutation with 30 percent lower losses. With its low cooling requirements, the diode also provides an excellent cost-performance trade-off on the system level.

Shenzhen VMAXPower Co,. Ltd. (VMAX) is a leading OBC supplier in China, focusing on the development of automotive power electronics and providing customers with highly reliable OBCs and DC-DC converters. VMAX uses Infineon's latest CoolSiC Hybrid Discrete in their next-generation OBC/DC-DC system.

"The partnership we have with Infineon is an essential cornerstone of our philosophy of consistently creating maximum value for our customers," said Xu Jinzhu, R&D Director of VMAX. "The CoolSiC Hybrid Discrete allows us to simplify driver design, accelerate product development, lower costs and increase system robustness. The integrated silicon carbide diodes without reverse recovery charge further optimize the

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EMC characteristics of the system. This results in greater performance benefits and a better price/performance ratio in topologies such as totem-pole PFC and DAB."

"We are very happy about this close partnership and the great collaboration with VMAX. This project further highlights our strong position in the on-board charger application", said Jürgen Spänkuch, Vice President for Automotive High Power Discretes and Chips at Infineon.

Availability

The CoolSiC™ Hybrid Discrete for Automotive is now available. More information is available at www.infineon.com/automotive-igbt-discretes.

Shenzhen VMAXPower OBC with Infineon's CoolSiC™ Hybrid Discrete

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