MARKET NEWS

Infineon announces CoolGaN™ bidirectional switch and CoolGaN Smart Sense for higher performance and more cost-effective power systems

Munich, Germany – 5 June, 2024 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) today announced two new CoolGaN™ product technologies, CoolGaN bidirectional switch (BDS) and CoolGaN Smart Sense. CoolGaN BDS provides exceptional soft- and hard-switching behavior, with bidirectional switches available at 40 V, 650 V and 850 V. Target Applications of this family include mobile device USB ports, battery management systems, inverters, and rectifiers. The CoolGaN Smart Sense products feature lossless current sensing, simplifying design and further reducing power losses, as well as transistor switch functions integrated into one package. They are ideal for usage in consumer USB-C chargers and adapters.

The CoolGaN BDS high voltage will be available at 650 V and 850 V and feature a true normally-off monolithic bi-directional switch with four modes of operation. Based on the gate injection transistor (GIT) technology, the devices have two separate gates with substrate terminal and independent isolated control. They utilize the same drift region to block voltages in both directions with outstanding performance under repetitive short-circuit conditions. Applications can benefit by using one BDS instead of four conventional transistors, resulting in higher efficiency, density, and reliability. Furthermore, significant cost savings are achieved. The devices optimize performance in the replacement of back-to-back switches in single-phase H4 PFC and HERIC inverters and three-phase Vienna rectifiers. Additional implementations include single-stage AC power conversion in AC/DC or DC/AC topologies.

The CoolGaN BDS 40 V is a normally-off, monolithic bi-directional switch based on Infineon's in-house Schottky Gate GaN technology. It can block voltages in both directions, and through a single-gate and common-source design, it is optimized to replace back-to-back MOSFETs used as disconnect switches in battery-powered consumer products. The first 40 V CoolGaN BDS product has a 6 mΩ $R_{DS(on)}$, with a range of products to follow. Benefits of using 40 V GaN BDS vs. back-to-back Si FETs include 50 – 75 percent PCB area savings and a reduction of power losses by more than 50 percent, all at a lower cost.

The CoolGaN Smart Sense products feature 2 kV electrostatic discharge withstand and can connect to controller current sense for peak current control and overcurrent protection. The current sense response time is ~200 ns, which is equal or less than common controller blanking time for ultimate compatibility.

Public / For the Trade Press: INFPSS202406.111e

Veronika Seifried (Headquarters)	+49 89 234 61662	veronika.seifried@infineon.com	**Investor Relations:**
Agnes Toan (Americas)	+1 408 250 1814	agnes.toan@infineon.com	+49 89 234 26655
Chi Kang David Ong (Asia-Pacific)	+65 6876 3070	david.ong@infineon.com	investor.relations@infineon.com
Lin Zhu (Greater China)	+86 21 6101 9199	lin.zhu@infineon.com	
Yasuyuki Kamiseki (Japan)	+81 3 4595 7079	yasuyuki.kamiseki@infineon.com	

Implementing the devices results in increased efficiency and cost savings. At a higher $R_{DSs(on)}$ of e.g. 350 mΩ, the CoolGaN Smart Sense products offer similar efficiency and thermal performance at lower cost compared to traditional 150mΩ GaN transistors. Moreover, the devices are footprint compatible to Infineon's transistor-only CoolGaN package, eliminating the need for layout rework and PCB respin, and further facilitating design with Infineon's GaN devices.

Availability

Engineering samples of the CoolGaN BDS 40 V are available now for 6 mΩ and will follow in Q3 2024 for 4 mΩ and 9 mΩ. Samples of the CoolGaN BDS 650 V will be available in Q4 2024, and 850 V will follow early 2025. CoolGaN Smart Sense samples will be available in August 2024. Further information is available here: https://www.infineon.com/cms/en/product/promopages/GaN-innovations/

Infineon at the PCIM Europe 2024

PCIM Europe will take place in Nuremberg, Germany, from 11 to 13 June 2024. Infineon will present its products and solutions for decarbonization and digitalization in hall 7, booths #470 and #169. Company representatives will also be giving several presentations at the accompanying PCIM Conference and Forums, followed by discussions with the speakers. If you are interested in interviewing an expert at the show, please email media.relations@infineon.com. Industry analysts interested in a briefing can email MarketResearch.Relations@infineon.com. Information about Infineon's PCIM 2024 show highlights is available at www.infineon.com/pcim.

About Infineon

Infineon Technologies AG is a global semiconductor leader in power systems and IoT. Infineon drives decarbonization and digitalization with its products and solutions. The company has around 58,600 employees worldwide and generated revenue of about €16.3 billion in the 2023 fiscal year (ending 30 September). Infineon is listed on the Frankfurt Stock Exchange (ticker symbol: IFX) and in the USA on the OTCQX International over-the-counter market (ticker symbol: IFNNY).

Further information is available at www.infineon.com
This press release is available online at www.infineon.com/press
Follow us: X - Facebook - LinkedIn

Public / For the Trade Press: INFPSS202406.111e

Veronika Seifried (Headquarters)	+49 89 234 61662	veronika.seifried@infineon.com	**Investor Relations:**
Agnes Toan (Americas)	+1 408 250 1814	agnes.toan@infineon.com	+49 89 234 26655
Chi Kang David Ong (Asia-Pacific)	+65 6876 3070	david.ong@infineon.com	investor.relations@infineon.com
Lin Zhu (Greater China)	+86 21 6101 9199	lin.zhu@infineon.com	
Yasuyuki Kamiseki (Japan)	+81 3 4595 7079	yasuyuki.kamiseki@infineon.com	