



Press Release

Infineon Introduces 650V Rapid 1 and Rapid 2 Families, Entering the Market for High Voltage Hyperfast Silicon Diodes

Neubiberg, Germany and Long Beach, CA (USA) – March 14, 2013 – Today at the Applied Power Electronics Conference & Exposition (APEC) 2013, Infineon Technologies AG (FSE: IFX/OTCQX: IFNNY) introduced the highly efficient, fast recovery 650V Rapid 1 and Rapid 2 silicon diode families. Combining Infineon's ultrathin wafer manufacturing expertise for a low loss vertical structure plus unique cell design, the Rapid diodes provide outstanding performance.

The new Rapid diode families complement Infineon's existing high power 600V and 650V diode portfolio by filling the gap between silicon carbide (SiC) diodes and emitter-controlled diodes to address the ultrafast and hyperfast power silicon diode markets. Delivering highest efficiency, low electromagnetic interference (EMI), ultrafast reverse recovery time and increased system reliability at a very attractive price-performance ratio, the new devices are targeted for use in high efficiency applications with switching frequencies between 18 kHz and 100 kHz.

"The new Rapid ultrafast and hyperfast diodes provide outstanding efficiency, reliability based on Infineon's renowned quality, and an ideal cost-performance balance," says Roland Stele, Marketing Director IGBT Power Discretets at Infineon Technologies. "Optimised to work in harmony with our CoolMOS™ MOSFET and TRENCHSTOP™ 5 IGBT devices, the Rapid diodes represent a further step towards offering our customers a full system solution."

Rapid 1 with optimized V_F

The Infineon Rapid 1 diode family has a 1.35V temperature-stable forward voltage (V_F) to ensure lowest conduction losses and provide a soft recovery to keep EMI emissions to a minimum. The devices are perfectly suited for Power Factor Correction (PFC) topologies, typically found in major home appliances, like air condi-

For the Trade Press: INFIPC201303.031e

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tioners and washing machines, as well as boost stages in photovoltaic inverters, which are switching between 18 kHz and 40 kHz.

Rapid 2 with optimized Q_{rr} and t_{rr}

The Rapid 2 diode family is designed for applications switching between 40 kHz and 100 kHz. It offers both low reverse recovery charge (Q_{rr}) and reverse recovery time (t_{rr}). This minimizes reverse conduction effects attributed to power switch turn-on losses and thus provides maximum efficiency. Rapid 2 is targeted at PFC stages found in servers, telecom rectifiers, TV and laptop power adapters, and welding machines. Here the Rapid 2 diode shows excellent compatibility with Infineon's CoolMOS™ MOSFETs and high speed IGBTs (Insulated Gate Bipolar Transistor) such as the TRENCHSTOP™ 5.

Availability

Engineering samples are available now. Qualification samples for Rapid 1 and Rapid 2 diodes will be available in April 2013. Mass production will start in May 2013. For more information visit www.infineon.com/rapiddiodes

About Infineon

[Infineon](http://www.infineon.com) Technologies AG, Neubiberg, Germany, offers semiconductor and system solutions addressing three central challenges to modern society: [energy efficiency](#), [mobility](#), and [security](#). In the 2012 fiscal year (ending September 30), the Company reported sales of Euro 3.9 billion with close to 26,700 employees worldwide. Infineon is listed on the Frankfurt Stock Exchange (ticker symbol: IFX) and in the USA on the over-the-counter market OTCQX International Premier (ticker symbol: IFNNY).

Further information is available at www.infineon.com

This news release is available online at www.infineon.com/press

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