



Press Release

Introducing the TO-247 4 Kelvin-Sense Package for Discrete IGBTs – Infineon Defines New Levels of Low Switching Losses and High Power Density

Munich, Germany – November 4, 2014 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) expands its IGBT offering by introducing a new variant of the popular TO-247 package. The new TO-247 4 Kelvin-Sense package addresses the need for increased power density and space saving in applications striving for high efficiency. When used together with Infineon's TRENCHSTOP™ 5 IGBT and Rapid diode technologies, the innovative TO-247 4 package provides efficiency levels previously not available. Applications like Uninterruptible Power Supplies (UPS), data centers, and telecommunications equipment, with PFC and inverter stages switching at greater than 20kHz, will profit from the new package.

The 4-pin configuration offers a Kelvin-Sense connection to significantly reduce the emitter inductance in the gate driving loop. This is achieved by providing an additional connection to the IGBT emitter that serves as the reference potential for the driver. The 4-pin version enables customers to increase switching frequency in order to improve power density and reduce system costs. Comparing the TO-247 4-pin variant using TRENCHSTOP 5 IGBT and Rapid diode technologies with standard TO-247 3, the new package provides 20% lower turn-off losses and 15% lower turn-on losses. Combined, the total switching losses are reduced by about 20% leading to an unparalleled efficiency.

Lead customers have proven that by implementing the TO-247 4 package for EU ENERGY STAR® certified UPS, for example, power density can be doubled and efficiency can also be improved significantly. This enables high power interchangeable UPS racks to be more compact, thus requiring smaller buildings to house the UPS systems, reduce the cooling effort needed and improve the overall system costs. According to the ENERGY STAR organization, an ENERGY STAR

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certified UPS can cut energy losses in the range of 30 to 55%. Here the new package makes the task of the designer easier to achieve the efficiency goals.

“The TO-247 4 package extends the performance of the outstanding TRENCHSTOP 5 technology”, says Roland Stele, Marketing Director IGBT and SiC Power Discretes at Infineon Technologies. “Customers striving for utmost efficiency and high power density will benefit from this package.”

Availability

Samples of the new TO-247 4 discrete IGBTs are available upon request; customers can choose either from the co-packed freewheeling diode, Rapid 1, optimized for low forward voltage (V_F), or Rapid 2, optimized with low reverse recovery charge (Q_{rr}). Additionally a demoboard is available to make the comparison between TO-247 3 and TO-247 4 packages easy. The new package will be showcased and previewed at Electronica 2014 in Munich from November 11 through 14.

Further Information

Further information on the new TO-247 4 Kelvin-Sense package is available at www.infineon.com/TO-247-4.

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 2013 fiscal year (ending September 30), the company reported sales of Euro 3.84 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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