

Power MOSFET family achieves 650V rating



Geneva, December 20, 2011 –

STMicroelectronics has broken the worldwide record for high-voltage power MOSFETs with the introduction of a new member of the MDmesh V family, which was already the industry performance leader, boasting the best on-resistance per area for highest efficiency and power density in 650V rating and can now improve a key efficiency metric by more than 23%. This is a giant leap to energy saving typically lost as heat emitted by power-conversion circuitry used in systems such as electronic lighting controls, power supplies for consumer products, and solar-power converters.

“The new record emphasizes and extends ST’s leadership in Super-Junction MOSFETs, of which our MDmesh V represents the latest iteration of ST’s well proven Multi-Drain Mesh technology,” said Maurizio Giudice, Power Transistor Marketing Director for ST. “The enhanced performance will enable customer applications to reduce their energy consumption, underpinning ST’s commitment to provide responsible products for the environment while providing outstanding performance through the design and development of innovative products.”

The recently introduced STW88N65M5 MDmesh V MOSFET features the industry’s lowest on-state resistance for 650V devices in the standard TO-247 package, at 0.029 Ohms. This betters ST’s previous industry benchmark of 0.038 Ohms, also set by an MDmesh V device. This empowers end application designers to increase energy efficiency by directly replacing MOSFETs of higher resistance or to use fewer devices in parallel and so reduce assembly sizes and Bill-Of-Materials (BOM) costs.

The 650V voltage rating of ST’s STW88N65M5 and other MDmesh V devices provides a greater safety margin than that offered by 600V devices from competing manufacturers. This increases the MOSFET’s ability to withstand voltage surges

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Published on Electronic Component News (<http://www.ecnmag.com>)

commonly present on AC power lines.

ST's market-proven MDmesh V technology is available in a vast range of packages including Max247, TO-247, D2PAK, TO-220/FP, PowerFLAT 8x8 HV and I2PAK.

The new STW88N65M5 is available immediately in the TO-247 package, priced at \$20.00 for orders of 1000 pieces.

For more information go to: www.st.com/mdmeshv [1]

Source URL (retrieved on 12/08/2013 - 4:16pm):

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[1] <http://www.st.com/mdmeshv>