eGaN FET Family Touts Switching Performance

Efficient Power Conversion Corporation announced the introduction of the EPC2012 as the newest member of EPC's second-generation enhanced performance eGaN FET family. The EPC2012 is environmentally friendly: being lead free, RoHS-compliant (Restriction of Hazardous Substances), and halogen free.

The EPC2012 FET is a 1.6 mm2 200 VDS device with a maximum RDS(ON) of 100 milliohms with 5 V applied to the gate. This eGaN FET provides significant performance advantages over the first-generation EPC1012 eGaN device. The EPC2012 has an increased pulsed current rating of 15 A (compared with 12 A for the EPC1012), is fully enhanced at a lower gate voltage, and has superior dv/dt immunity due to an improved ratio of QGD/QGS.

Compared to a state-of-the-art silicon power MOSFET with similar on-resistance, the EPC2012 is much smaller and has many times superior switching performance. Applications that benefit from eGaN FET performance include high-speed DC-DC power supplies, point-of-load converters, class D audio amplifiers, hard-switched and high frequency circuits.
"With the expansion of our family of eGaN FETs, we continue to raise the bar for the performance of gallium nitride FETs. In addition, this new generation of eGaN products are the industry's first gallium nitride FETs to be offered as lead-free and RoHS-compliant," said Alex Lidow, co-founder and CEO.

In 1k piece quantities, the EPC2012 is priced at $2.10 and is immediately available through Digi-Key Corporation at http://digikey.com/Suppliers/us/Efficient-Power-Conversion.page?lang=en [1]
Design Support

An application note detailing the performance improvements of the EPC2012 eGaN can be found at http://epc-co.com/epc/documents/product-training/Characteristics_of_Second_Generation_eGaN_FETs.pdf [2]

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