

## **PRESS RELEASE**

### **Contact:**

Ronnie Ganitano  
IXYS Corporation  
Tel: 408-457-9000

### **IXYS Introduces New Rugged 500V and 600V PolarP3™ Power MOSFETs**

Milpitas, CA and Biel, Switzerland. May 12, 2011 – IXYS Corporation (NASDAQ: IXYS) announces the release of its new PolarP3™ Power MOSFET family. The announcement represents a significant addition to IXYS' extensive high-performance Polar-Series Power MOSFET product line. These new devices combine IXYS' latest Polar-Series technology platform and HiPerFET™ process to deliver a Power MOSFET solution that exhibits benchmark electrical and thermal characteristics. These characteristics include low on-state resistances (R<sub>dson</sub> as low as 39 mOhms), low gate charge (Q<sub>g</sub> as low as 33nC), low thermal resistances (Max R<sub>thjc</sub> as low as .066 degrees Celsius per watt), high power dissipation (P<sub>d</sub> as high as 1890 Watts), superior dV/dt performance and high avalanche energy capabilities. These outstanding electrical and thermal device attributes allow for improved power efficient topologies in applications such as power factor correction circuits, switch-mode power supplies, UPS, motor drives, lamp ballasts, laser drivers, DC-DC converters, battery chargers, solar generation systems, robotic and servo control.

The new Power MOSFETs are initially available in two voltage grades: 500V and 600V grade respectively. 500V PolarP3™ offerings include drain current (T<sub>c</sub> = 25 degrees Centigrade) ratings of 60, 78, 98, 112 and 132 amperes. Conversely, 600V PolarP3™ offerings will include drain current (T<sub>c</sub> = 25 degrees Centigrade) ratings of 22, 28, 42, 50, 64, 80, 90 and 110 amperes. These new devices feature a very desirable low FOM (Figure of Merit: R<sub>dson</sub> x Q<sub>g</sub>) performance index as low as 9.6 Ohm-nC, providing substantial reductions in both the conduction and switching losses of the device, thereby enabling increased efficiency and reduced power consumption in power conversion systems.

High speed switching applications such as switch-mode power supplies (SMPS) and uninterruptible power supplies (UPS) will greatly benefit from the ultra-low total gate charge and gate drain charge (Q<sub>g</sub>=38nC, Q<sub>gd</sub>=11nC, V<sub>gs</sub> at 10V) characteristics of these devices. The low gate charge and gate drain charge characteristic allows designers the ability to boost power conversion efficiency through the use of high-speed switching and to promote the use of smaller passive components, thus freeing up additional PCB real estate and reducing the cost of bulky passive components. In addition, the low gate charge reduces the amount of gate drive power requirement (Gate Drive Power = Q<sub>g</sub> x V<sub>gs</sub> x F<sub>sw</sub>) for the Power MOSFET to fully conduct. Since these devices require less gate drive power, simple economical gate drive solutions can be implemented, further reducing cost and complexity.

Power switching capabilities and device ruggedness of these devices is further enhanced through the utilization of IXYS' HiPerFET™ process, yielding a device with a fast intrinsic diode for low reverse recovery charge (Qrr) and improved turn-off dV/dt immunity. The enhanced dV/dt capability of these devices offers significant safety margins for the stresses encountered in high-voltage switching applications. Furthermore, these new devices eliminate the need for discrete anti-parallel high voltage diodes used in conventional designs, thereby reducing part count, simplifying PCB layouts, reducing overall losses and improving power density. The featured fast intrinsic body diode properties of these HiPerFETs play a pivotal role in overall device performance by providing faster transient response, increased power efficiency, improved ruggedness, and higher operating frequencies and making them ideal for use in critical high switching applications such as switch-mode power supplies.

Initial package housing availability of these new devices is available in various industry standard packages. These packages include the TO-247, TO-3P, TO-268, TO-264, SOT-227, PLUS264, and PLUS247. Some part number examples are: IXFH60N50P3 (500V, 60A, Rdson <=100mOhm, TO-247), IXFK78N50P3 (500V, 78A, Rdson <=68mOhm, TO-264), IXFN132N50P3 (500V, 112A, Rdson <=39mOhm, SOT-227), IXFH22N60P3 (600V, 22A, Rdson <=360mOhm, TO-247), IXFQ50N60P3 (600V, 50A, Rdson <=145mOhm, TO-3P) and IXFB110N60P3 (600V, 110A, Rdson <=56mOhm, PLUS264).

Additional product information may be obtained by visiting IXYS website at <http://www.ixys.com>, or by contacting the company directly.

### **About IXYS Corporation**

IXYS Corporation makes and markets technology-driven products to improve power conversion efficiency, generate solar and wind power and provide efficient motor control for industrial applications. IXYS offers a diversified product base that addresses worldwide needs for power control, electrical efficiency, renewable energy, telecommunications, medical devices, electronic displays and RF power.

### **Safe Harbor Statement**

Any statements contained in this press release that are not statements of historical fact, including the performance, features and suitability of products for various applications, may be deemed to be forward-looking statements. There are a number of important factors that could cause the results of IXYS to differ materially from those indicated by these forward-looking statements, including, among others, risks detailed from time to time in the Company's SEC reports, including its Form 10-Q for the fiscal quarter ended December 30, 2010. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements.

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