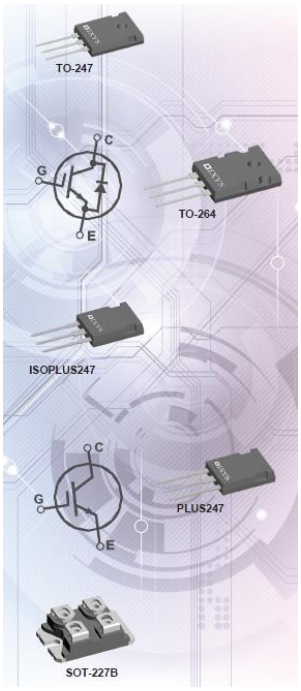
IXYSPOWER *Efficiency through Technology* **New Product Release**

650V XPT™ Trench IGBTs

Highly Efficient Low On-State Voltage IGBTs



Milpitas, California and Biel, Switzerland, March 2013 – IXYS Corporation (NASDAQ: IXYS) announces the release of a new IGBT product line – 650V XPT™ Trench IGBTs. The current ratings of devices in the new product family range from 30A to 200A at a high temperature of 110°C. With on-stage voltages as low as 1.7V, these new eXtreme-light Punch-Through (XPT™) devices are designed to minimize conduction and switching losses, especially in hard-switching applications. Optimized for different switching speed ranges (up to 60kHz), these IGBTs provide designers with flexibility in device selection in terms of cost, saturation voltage, and switching frequency. Devices co-packed with IXYS ultra-fast Sonic-FRD™ diodes are also available.

Developed using the IXYS XPT™ thin-wafer technology and state-of-the-art 4th generation (GenX4™) Trench IGBT process, these devices feature reduced thermal resistance, low energy losses, fast switching, low tail current, and high current densities. In addition, they display exceptional ruggedness under short-circuit conditions – a 10µs Short Circuit Safe Operating Area (SCSOA). Moreover these IGBTs have square Reverse Bias Safe Operating Areas (RBSOA) up to the breakdown voltage of 650V, making them ideal for snubber-less hard-switching applications. Other qualities include a positive collector-to-emitter voltage temperature coefficient which enables designers to use multiple devices in parallel to meet high current requirements and low gate charges which help reduce gate drive requirements and switching losses.

Thanks to its speed and 'soft recovery' characteristics, the co-packed Sonic-FRD™ diode is an ideal match for these XPT™ IGBTs in reducing turn-on and turn-off losses. It is optimized to suppress ringing oscillations and voltage spikes in recovery, thereby producing smooth switching waveforms and significantly lowering electromagnetic interference (EMI) in the process. The temperature stability of its forward voltage also helps lower switching losses when devices are operated in parallel.

The new IGBTs are well-suited for a wide variety of power conversion applications, including lighting control, battery chargers, motor drives, power inverters, power factor correction circuits, switch-mode power supplies, uninterruptible power supplies, E-Bikes, and welding machines.

These 650V XPT™ IGBTs are available in the following international standard packages: TO-247, TO-264, SOT-227B, PLUS247, and ISOPLUS247™. Some example part numbers are IXXH30N65B4, IXXN110N65C4H1, IXXK160N65C4, and IXXX200N65B4, with collector current ratings of 65A, 234A, 290A, and 370A, respectively. Additional product information or a complete list of the parts can be obtained by visiting the IXYS website at http://www.ixys.com or by contacting the company directly.

650V XPT™ Trench IGBTs Summary Table

Part Number	V_{CES} (V)	I_{C25} T_C=25°C (A)	I_{C110} T_C=110°C (A)	$V_{CE(sat)}$ max T_J=25°C (V)	t_{fi} typ T_J=150°C (ns)	E_{off} typ T_J=150°C (mJ)	R_{thJC} max IGBT (°C/W)	Configuration	Package Style
IXXH30N65B4	650	65	30	2	100	0.6	0.65	Single	TO-247
IXXH60N65B4H1	650	116	60	2	94	1.34	0.33	Copacked (Sonic-FRD™)	TO-247
IXXH60N65B4	650	116	60	2	94	1.34	0.33	Single	TO-247
IXXH60N65C4	650	118	60	2.2	47	0.93	0.33	Single	TO-247
IXXH40N65B4	650	120	40	1.8	73	0.78	0.33	Single	TO-247
IXXR110N65B4H1	650	150	70	2.15	105	1.4	0.33	Copacked (Sonic-FRD™)	ISOPLUS247™
IXXH80N65B4	650	160	80	2	65	1.65	0.24	Single	TO-247
IXXH80N65B4H1	650	160	80	2	65	1.65	0.24	Copacked (Sonic-FRD™)	TO-247
IXXN110N65C4H1	650	210	110	2.35	43	0.77	0.2	Copacked (Sonic-FRD™)	SOT-227B
IXXN110N65B4H1	650	215	110	2.1	105	1.4	0.2	Copacked (Sonic-FRD™)	SOT-227B
IXXH110N65C4	650	234	110	2.35	43	0.77	0.17	Single	TO-247
IXXK110N65B4H1	650	240	110	2.1	105	1.4	0.17	Copacked (Sonic-FRD™)	TO-264
IXXX110N65B4H1	650	240	110	2.1	105	1.4	0.17	Copacked (Sonic-FRD™)	PLUS247
IXXK160N65C4	650	290	160	2.1	57	1.3	0.16	Single	TO-264
IXXX160N65C4	650	290	160	2.1	57	1.3	0.16	Single	PLUS247
IXXK160N65B4	650	310	160	1.8	160	2.36	0.16	Single	TO-264
IXXX160N65B4	650	310	160	1.8	160	2.36	0.16	Single	PLUS247
IXXK200N65B4	650	370	200	1.7	110	2.54	0.13	Single	TO-264
IXXX200N65B4	650	370	200	1.7	110	2.54	0.13	Single	PLUS247

(Clickable links)

Product Brief (Downloadable PDF)

Advertisement (Downloadable PDF)

Parametric Data and Datasheets

Safe Harbor Statement

Any statements contained in this press release that are not statements of historical fact, including the performance, price, ratings, benefits, reliability, availability, 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 Annual Report on Form 10-Q for the fiscal quarter ended December 31, 2012. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements.