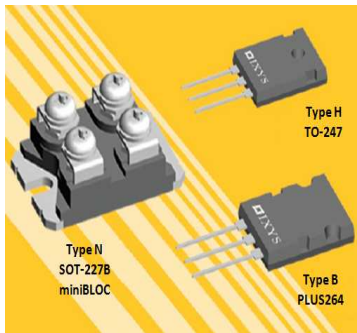


1200V XPT IGBTs

IXYS Introduces New Rugged and Fast 1200V High-Gain (XPT) IGBTs



Milpitas, Ca. and Biel, Switzerland. August 4, 2011 – IXYS Corporation (NASDAQ: IXYS) announces the expansion of its XPT IGBT product line with the release of new discrete high-speed, high-gain 1200V products. The new devices feature high current ratings (105A - 160A, $T_c=25^\circ\text{C}$) and are specifically optimized for reduced switching losses in high-voltage applications that require hard-switching frequencies of up to 50 kHz. The high-speed switching capabilities of these new 1200V IGBTs allow customers to boost the power conversion efficiency of their designs and to use smaller, lighter and more cost-effective passive components. The resultant

effect is a reduction in total system cost of ownership and reduced PCB layout area.

Developed using IXYS XPT™ design platform, these new devices feature excellent electrical characteristics which include low collector to emitter saturation voltages (V_{cesat} as low as 3.0V), low typical current fall times (t_{fi} as low as 57ns), and low turn-off energy per pulse values (E_{off} as low as 1.2mJ, $T_j=25^\circ\text{C}$). In addition, these new IGBTs retain a positive temperature coefficient of its collector to emitter saturation voltage for ease of parallel configuration, allowing designers to utilize multiple XPT discrete devices in parallel to achieve the desired high current requirements of their application. The low gate charge characteristics of these new devices also aid in the reduction in gate drive power requirements of the device, thus allowing the implementation of simple and more economical gate drive solutions. Additional features include dynamic avalanche ratings and a square reverse bias safe operating area (RBSOA) rated up to the device's blocking voltage for enhanced system ruggedness.

The new 1200V XPT devices are available with IXYS' Sonic-FRD™ anti-parallel ultra-fast diodes (Sonic-FRD™ – Suffix H1, ie. **IXYN82N120C3H1**). The combination of XPT IGBT and IXYS' Sonic-FRD™ result in an optimal match for reduced turn-off losses. Furthermore, the soft recovery characteristics of the Sonic-FRD™ co-packed diode allows the XPT IGBT to be switched on at very high di/dt 's regardless of low current and temperature conditions and provides excellent EMI performance despite the level of the switched current.

A variety of high-voltage applications stand to benefit from the unique power handling and energy-efficient advantages of these new devices. List of possible applications include high frequency power inverters, UPS's, motor drives, high power lighting controls, welding machines, battery chargers, power factor correction circuits, and high-voltage switch-mode power supplies. Device offerings include part numbers [IXYH50N120C3](#) ($I_{c25} = 105\text{A}$, $V_{\text{cesat}} = 3.0\text{V}$, $t_{\text{fi}(\text{typ})} = 57\text{ns}$, TO-247), [IXYH82N120C3](#) ($I_{c25} = 160\text{A}$, $V_{\text{CEsat}} = 3.2\text{V}$, $t_{\text{fi}(\text{typ})} = 93\text{ns}$, TO-247), [IXYN82N120C3H1](#) ($I_{c25} = 105\text{A}$, $V_{\text{cesat}} = 3.2\text{V}$, $t_{\text{fi}(\text{typ})} = 93\text{ns}$, SOT-227), and [IXYB82N120C3H1](#) ($I_{c25} = 160\text{A}$, $V_{\text{cesat}} = 3.2\text{V}$, $t_{\text{fi}(\text{typ})} = 93\text{ns}$, PLUS264).

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

1200V XPT IGBT Summary Table

| Part Number | V _{CE5} (V) | I _{C25} T _c =110°C (A) | I _{C110} T _c =110°C (A) | V _{ce(sat)} Max (V) | T _{fi} Typ (ns) | E _{off} typ T _J =125°C (mJ) | R _{thJC} Max (°C/W) | Configuration | Package Style |
|----------------|-------------------------|--|---|------------------------------------|--------------------------------|---|------------------------------------|---------------|---------------|
| IXYH50N120C3 | 1200V | 105 | 50 | 3.0 | 57 | 1.47 | 0.20 | Single | TO-247 |
| IXYH82N120C3 | 1200V | 160 | 82 | 3.2 | 93 | 3.7 | 0.12 | Single | TO-247 |
| IXYN82N120C3H1 | 1200V | 105 | 46 | 3.2 | 93 | 3.7 | 0.25 | Co-Packed | SOT-227B |
| IXYB82N120C3H1 | 1200V | 160 | 82 | 3.2 | 93 | 3.7 | 0.12 | Co-Packed | PLUS264 |

[IXYS 1200V Discrete XPT IGBT Parametric Data and Datasheets](#)

**Select “1200V XPT IGBTs..” to configure the product table to display all discrete 1200V XPT devices.*

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-K for the year ended March 31, 2006. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements.

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