

PRESS RELEASE

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New 5.5kV Extra fast recovery diode



Westcode Semiconductors Limited (An IXYS company) announces the launch of a new 1300A, 5.5kV extra fast recovery diode. The new diode is the first in a planned introduction of high power, higher voltage diodes using an advanced PIN structure. The new device combines the low forward voltage drop of the PIN structure with fast soft recovery to give an energy efficient solution for medium voltage rectification applications.

The new design uses specialised processing techniques to give a vertical PIN structure, optimising the forward voltage drop, <2V at $I_F=1300A$, against the 5.5kV blocking voltage. Advanced life-time control techniques results in an extra fast diode with t_{rr} of 15 μ s and di/dt capability greater than 1000A/ μ s. Overall resulting in a 5.5kV device with low on-state losses but extra fast switching, without compromising on current rating or maximum operating temperature.

The device is available in three voltage grades, identified by part numbers F1300NC45P – 4.5kV, F1300NC50P – 5kV and F1300NC55P – 5.5kV. All are encapsulated in a fully hermetic, ceramic walled package with 47mm diameter copper pole faces.

The low losses of the new device offer the opportunity to design more energy efficient rectifiers in medium voltage applications. Typical applications are as anti-parallel or clamp diodes in conjunction with IGBTs, IGCTs or other fast switching devices in traction, medium voltage drives etc. The high di/dt and low forward loss also make the device ideally suited to series operation as fast rectifiers in applications such as pulsed power or power conversion.

For a data sheet please go to the Westcode website at www.westcode.com or please contact us at (email: WSL.sales@westcode.com) or telephone: +44 (0)1249 444524 for quotation.

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