

## Press Release

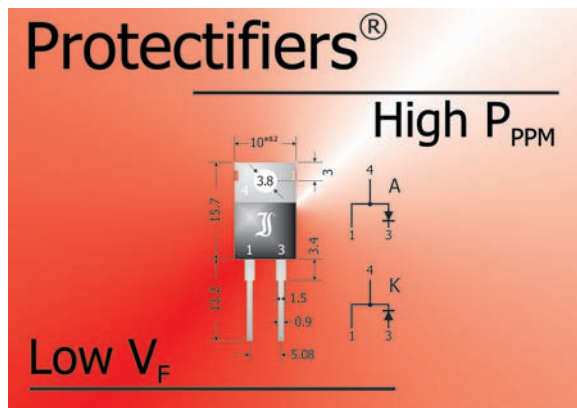
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Text file (.txt) and high resolution picture see <http://www.diotec.com/service/presse/>**Stand 12-539**

### Protectifiers® – Another Step Towards An Ideal Diode

An ideal diode would have as low as possible forward voltage drop, and as rugged as possible reverse blocking behaviour. The Protectifiers® by Diotec Semiconductor combine the low forward voltage drop of a Schottky diode with the robust reverse characteristic of a Transient Voltage Suppressor (TVS). Protectifiers® are the solution for low loss rectification in circuits with reverse overvoltage surges. Typical applications are output rectifiers in switched mode power supplies, free-wheeling diodes for motors and inductors or diodes for reverse polarity protection.

The Protectifiers® datasheet contains a reverse power rating tested with a 10/1000µs surge, the waveform usually associated with lightning. Their performance is given by design, and does not depend on avalanche of the rectifier.



Initially two products in different categories are introduced:

The TSK2520D2 is a 25A / 20V device in a TO-263AB package. It has a forward voltage of < 0.55V @ 25A and < 0.45V @ 5A. It is characterized up to 600W reverse peak pulse power on a 10/1000µs pulse, forward surges can be up to 300A for 10ms. The Reverse Recovery Time is as low as that of a Schottky diode.

The KT20A150 is a 20A / 150V rated part in a TO-220AC package. It has a maximum working voltage of 150V and a Vf of < 0.98V @ 20A and < 0.85V @ 5A. It is specified for 800W reverse peak power on a 10/1000µs pulse, and is highly suitable for rugged industrial environments. Reverse recovery time is < 250ns and as

such it can be used in systems up to 40 kHz. A special feature of the KT20 series: it comes in two versions, one with the anode connected to the heatsink, the other with the cathode connected to the TO-220 heatsink. These are the first two products in the new product range. Other combinations of current rating/reverse energy capability/package type are possible upon customer's request.

**For more information, visit our stand 12-539 at PCIM 2009 in Nuremberg!**

**Diotec Semiconductor AG** of Germany is a manufacturer of discrete semiconductor diodes and rectifiers with more than 30 years of experience in this field. The company specializes in high volume manufacturing as well as customized solutions in 4 factories around the world and offers short cycle times / great flexibility and detailed technical support.

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