

Press Release

027e 21 April 2009

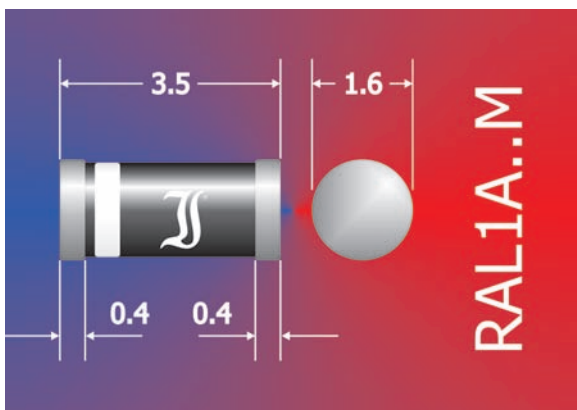
Text file (.txt) and high resolution picture see <http://www.diotec.com/service/presse/>**Stand 12-539**

New Controlled Avalanche Rectifiers

Replacement for discontinued industry standard BYD37 series

Diotec Semiconductor introduces its first Controlled Avalanche Rectifiers rated at 20mJ, called the RAL1 Series. They are Fast Recovery Rectifiers in the MiniMelf package. These 1 Amp Rectifiers have recovery times from 150ns (100-400V Version), 250ns (600V Version) to 500ns (800-1000V versions). They are equivalents to the discontinued BYD37 series from NXP/Philips.

Diotec Semiconductor produces these rectifiers with its proprietary Plasma EPOS process. There are several methods in the semiconductor industry to characterize avalanche capability including those based upon an inductive discharge. Most methods have little correlation with the actual design. As such Diotec decided to add its production test specification to the datasheets. Reverse current of 1mA is applied to each rectifier tested to ensure a capability of 20mJ.



The RAL1 series features the robust MiniMelf construction. The die is soldered in between two copper plugs. This offers very good transient thermal impedance performance on short pulses and in general the MELF package has an improved thermal resistance over leadframe based rectifiers.

After the RAL1, the company will introduce the AL1 (standard) and EAL1 (superfast) 1 Amp 20mJ Avalanche Rated MELFs – second sourcing the discontinued BYD17 and the BYD57/BYD77 series. The on-chip passivation Plasma EPOS process allows to build easily different chip sizes; as such Diotec will introduce more avalanche rated products in the future.

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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