



## **Low Operating-Current Shunt Regulator from Diodes Incorporated Reduces Standby Power Dissipation**

**Plano, Texas – April 21, 2015** – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets, today introduced the AP431i. This adjustable shunt regulator features a 50 $\mu$ A minimum cathode current that is significantly lower than equivalent industry-standard 431 devices. This enables manufacturers of switch-mode power supplies to target applications that require very low power dissipation, particularly 12V/19V adaptors/chargers, but also TVs and monitors where standby power consumption is of great importance.

With reliable thermal stability over its full operating range, the AP431i three-terminal adjustable-shunt regulator features fast turn-on characteristics, a low temperature coefficient and low output impedance. The AP431i has the same electrical specifications as a standard 431, while having an advantage of being able to regulate with a low minimum cathode current, typically 50 $\mu$ A. This key differentiator makes it well-suited as a Zener diode substitute in switch-mode power supplies (SMPS).

The output voltage of AP431i can be set to any value between  $V_{REF}$  (2.5V) and the corresponding maximum cathode voltage (36V). Two grades of initial voltage tolerance are offered, 0.5% and 1%, with three package options available: TO-92 (ammo-pack), SOT-23 and SOT-89. These packages are fully RoHS compliant and totally lead-, halogen- and antimony-free "green" devices.

The AP431i low operating current shunt regulator also offers higher performance at a lower cost than competitive devices. Further information is available at [www.diodes.com](http://www.diodes.com).

### **About Diodes Incorporated**

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, is a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, functional specific arrays, single gate logic, amplifiers and comparators, Hall-effect and temperature sensors; power management devices, including LED drivers, AC-DC converters and controllers, DC-DC switching and linear voltage regulators, and voltage references along with special function devices, such as USB power switches, load switches, voltage supervisors, and motor controllers. Diodes' corporate headquarters and Americas' sales office are located in Plano, Texas. Design, marketing, and engineering centers are located in Plano; San Jose, California; Taipei, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Kansas City, Missouri and Manchester, with two additional facilities located in Shanghai, China. Diodes has assembly and test facilities located in Shanghai and in Chengdu, China, as well as in Neuhaus and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; and Munich, Germany, with support offices throughout the world. For further information, including SEC filings, visit Diodes' website at [www.diodes.com](http://www.diodes.com).

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