IC for Non-isolated LED Driver Applications Offers Improved Performance and Greater Cost Efficiency

International Rectifier today introduced the IRS2980 high-voltage buck regulator control IC for LED light bulb replacement, LED tube lighting and other non-isolated LED driver applications.

Rated at 600 V, the IRS2980 is the first in a family of high-voltage LEDrivIR ICs, and utilizes hysteretic average current mode control for precise current regulation. The LED buck driver features low-side MOSFET drive with high-voltage internal regulator and high-side current sensing. The converter is compatible with electronic PWM dimming allowing for 0%-100% current control.

“In the rapidly growing solid state lighting sector, there is a need for low cost driver electronics to supply constant current output to high brightness, high power LEDs. The new IRS2980 LEDrivIR™ IC offers improved performance at a lower system cost than alternative solutions for non-isolated LED driver applications,” said Peter Green, LED Group Manager, IR’s Energy Saving Products Business Unit.

Available in an SO-8 package, the IRS2980 utilizes IR’s advanced high-voltage IC process which incorporates latest-generation high-voltage level-shifting and termination technology to deliver superior electrical over-stress protection and higher field reliability, in addition to other new features and enhancements.

Specifications

Part Number	Package	Voltage	VTH	Io	Max Frequency
IRS2980SPBF	SO8	600 V	0.5V	+/- 80/260mA	250kHz

Design Tools

A datasheet and application note are available on the International Rectifier website at www.irf.com [1]. A reference design, the IRPLLED7, featuring the IRS2980DS is also available.

Availability and Pricing

Pricing for the IRS2980 begins at US $0.60 each in quantities of 10,000-units. The IRPLLED7 costs US $99 per kit. Production quantities are available immediately. The devices are lead free and RoHS compliant. Prices are subject to change.

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[1] http://www.irf.com