Half-Bridge Control ICs Simplify SMPS Design

International Rectifier today introduced the industry's first 8-pin resonant half-bridge control ICs for energy efficient Switch Mode Power Supplies (SMPS) used in LCD televisions and monitors, home theater systems, desktop computers, printers and game console applications.

Available in an 8-pin SO-8 package, the IRS2795(1,2)S resonant half-bridge control ICs offer a high level of programmability and protection. Features include programmable switching frequency up to 500 kHz with 50 percent fixed duty cycle, programmable soft start frequency and soft start time, and programmable deadtime for optimized Zero Voltage Switching (ZVS) under all load conditions to achieve high efficiency and low switching noise.

"As more and more designers seek to boost the overall efficiency of their system using resonant half-bridge topologies, combined with the IR11682 SmartRectifier™ IC, the new IRS2795xS 8-pin devices deliver a highly efficient power supply solution that simplifies design and reduces overall system cost," said Tom Ribarich, director, IR's Energy Saving Products Business Unit.

The IRS2795(1,2)S devices offer over-current protection using the on-state resistance (RDS(on)) of the low-side MOSFET, eliminating the need for an additional current sense resistor. Other key features include floating channel bootstrap operation up to +600Vdc, micro-power start-up and ultra-low quiescent current, as well as user initiated micro-power "sleep mode".

Specifications

Part Number	Package	V_{OFFSET}(V)	I_{O+} & I_{O-} (mA)	Programmable Frequency (kHz)	Programmable Dead-time (ns)	OCP Threshold(V)
IRS27951S	SO-8	600	300/900	25-500	200-2000	8
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Design Tools

A datasheet and application note are available on the International Rectifier website at www.irf.com [1].

Availability and Pricing

Pricing for the IRS2795(1,2)S begins at US $0.74 each in quantities of 10,000-units. Production quantities are available immediately. The devices are lead free and RoHS compliant. Prices are subject to change.

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http://www.ecnmag.com/product-releases/2010/09/half-bridge-control-ics-simplify-smps-design

Links:

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