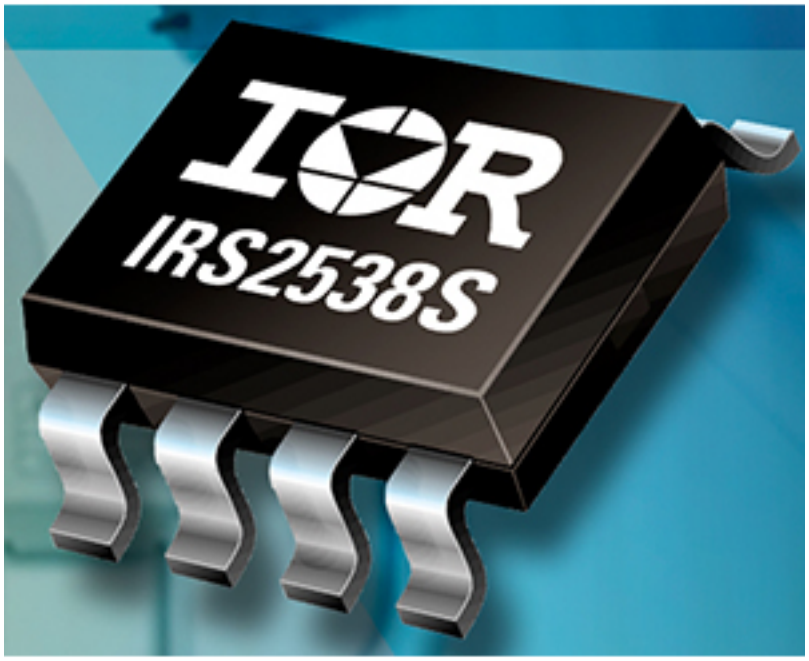
IC integrates a 600V half-bridge control circuit



International Rectifier introduced a reliable, highly efficient and cost effective control IC for magnetic ballasts used in fluorescent lamps.

The IRS2538DS emulates the behavior of a magnetic ballast control system, leveraging IR’s patented ballast and high-voltage technologies to offer an easy to use, high-performance, cost effective one-chip magnetic replacement ballast solution.

Available in a compact SO8 package, the IRS2538DS utilizes a novel control method to achieve high power factor with ultra-low THD to eliminate the need for a Power Factor Correction (PFC) stage and electrolytic capacitor at the input. The new IC integrates a 600V half-bridge control circuit, bootstrap MOSFET and comprehensive set of protection features to further reduce component count and PCB area, and increase reliability.

The IRS2538DS also features preheat, ignition and running lamp modes, closed-loop lamp current control, fixed pre-heat time (2s typical), adaptive deadtime (0.5us to 1.5us typical), lamp insert auto-restart, micropower start-up (125uA) and an internal 15.6V Zener diode clamp on Vcc.

Specifications

Part Number	Package	Voffset (typ)	Vcc (typ)	Io+/Io- (typ
IRS2538DS	SO8	600 V	15 V	180 mA

A datasheet is available on the International Rectifier website at www.irf.com [1].

Availability and pricing

Pricing for the IRS2538DS begins at US $0.94 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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Links:
[1] http://www.irf.com/