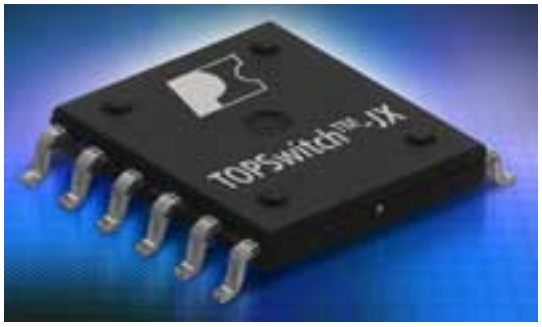
Eliminate Heatsinks and Achieve Less Than 60 mW No-Load in Power Supplies up to 65 W



Power Integrations today announced the availability of its industry-leading TOPSwitch™-JX power conversion IC in an innovative eSOP low-profile power package. This slender new surface-mount package is suited for applications without heatsinks up to 65 W in compact, open-frame installations such as slim LCD TV auxiliary power, set-top boxes, PC standby, and DVD players. In notebook, netbook, and printer adapters, the thermally efficient eSOP package can supply up to 40 W using only the PCB for thermal management.

The new eSOP package features an exposed die-attach pad that may be reflow soldered to the PCB during assembly. This permits the copper ground plane and thermal mass of the board to act as a heat sink. The 12-pin package occupies a tiny 119 mm2 footprint, yet maintains safety creepage and clearance distances required by international standards, and permits use in offline applications.

TOPSwitch-JX ICs incorporate both a PSU flyback controller and a 725 V MOSFET power in a single package, and feature a novel multi-mode control algorithm that maximizes power efficiency across the entire load range. High efficiency at full power minimizes power wasted during normal operation and reduces the complexity and expense of thermal management on the system. At low power levels, high efficiency enables adapters with extremely low no-load consumption and maximizes power available to the system in standby mode for applications constrained by standards and regulatory controls.

Excellent light-load efficiency and low power consumption in the no-load condition are facilitated by a novel multi-cycle modulation mode, which reduces the average switching frequency while minimizing output ripple and audible noise. This allows designs to easily meet stringent new efficiency specifications, such as ENERGY STAR® and the European Ecodesign Directive, while maintaining a stable output voltage. Standby power consumption of just 85 mW (for a 20 mW load) at 264 VAC is easily achieved using TOPSwitch-JX.

TOPSwitch-JX devices in the new low-profile package are available now starting at $0.79 each for 10,000-piece quantities. Full technical details, including the product introductory video, datasheet, and design ideas, are available now on the Power Integrations website at www.powerint.com/topswitch-jx.

Source URL (retrieved on *08/20/2014 - 12:03pm*):
http://www.wirelessdesignmag.com/product-releases/2011/01/eliminate-heatsinks-and-achieve-less-60-mw-no-load-power-supplies-65-w?qt-digital_editions=0