



PI3101 Cool-Power™ 60W isolated DC-DC converter setting a new benchmark for size and power density



Key Points:

- **Surface-mount Isolated DC-DC converter delivers 25W/cm³, 3-4 times more power density than existing solutions**
- **Wide input range 36V to 75V, providing a regulated 3.3V output at up to 18A**
- **Power-System-in-Package (PSiP) tiny footprint (3.6cm²).**
- **Proprietary technology enables high efficiency, low noise, switching frequency in excess of 1MHz.**

Picor, a subsidiary of Vicor Corporation specialising in the design and development of high performance power management solutions, announces the PI3101 Cool-Power™ high-density isolated DC-DC converter, ideal for end-systems such as advanced telecom and wireless infrastructure, networking & communications, Power-over-Ethernet applications and high speed server platforms. The PI3101 is the first in a new family of high-density power conversion products that leverages the company's core strength in power management, silicon integration and system-level packaging.

Delivering a regulated 3.3V output at up to 18A output current, from a wide input voltage range of 36V to 75Vdc, the PI3101 achieves 25W/cm³ (400W/in³), representing 3-4 times the power density of existing solutions, and optimises board area by providing 16.5W/cm² (105W/in²). The PI3101 combines isolation, voltage transformation and output regulation into a high density, surface-mount Power-System-in-Package (PSiP) platform with a tiny footprint 3.6cm² (0.57in²) and very low profile 6.7mm (0.27in).

The Cool-Power family is built on a proprietary ZVS topology using advanced control silicon integration, state-of-the-art planar magnetics and high performance power semiconductor technology enabling switching frequencies in excess of 1MHz with up to 87% efficiency. Fast transient response to dynamic loads limits the requirement for output bulk capacitance and EMI performance is significantly improved due to the inherent low noise and high frequency characteristics of the product.

The PI3101 is fully equipped with a variety of programmable features including: +/-10% output voltage trimming, programmable soft-start capability, remote on/off ENABLE and an accurate temperature monitor function that provides an analogue output voltage

proportional to the internal temperature of the product, serving also as a fault alarm. It is self-protected against various fault conditions including: input over-voltage and under-voltage lockout with auto-restart capability, over-temperature and output over-voltage protection with auto restart capability and a dual current limit threshold to protect against short circuits and overload conditions.

The PI3101 is available in a 22mm long x 16.5mm wide x 6.7mm high (0.87in x 0.65in x 0.27in) surface mountable PSiP package that occupies just half the area of a conventional sixteenth brick and is sampling now with full production volumes expected by the end of the second quarter of 2010.

For data sheets and other information, please visit the Picor website at www.vicor-asia.com/picorpower.

To place an order, please visit www.vicor-asia.com/support/sales/ for your local sales contact.

About Picor

Picor, a subsidiary of Vicor Corporation, is a fabless Power Management company focused on developing high performance analog and mixed-signal products through innovative solutions in silicon, power architectures and system-level packaging

About Vicor

Vicor Corporation designs, develops, manufactures, and markets modular power components and complete power systems used primarily by original equipment manufacturers (OEMs) in the communications, data processing, industrial control, test equipment, medical, and defense electronics markets.

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