The Fresno Bee

Fairchild Semiconductor's Power Supply Reference Design Achieves 94 Percent Efficiency - Reduces Noise and Protects Sensitive Circuitry in Consumer Applications - Thursday, Mar. 12, 2009

SAN JOSE, Calif. -- Fairchild Semiconductor (NYSE: FCS) makes it easier for designers to develop more efficient power supplies and meet stringent energy efficiency specifications with its 200W DC-DC power supply reference design. The RD212 reference design offers high efficiency (up to 94 percent) and low noise characteristics due to its zero voltage switching (ZVS) technique. It provides a 24V output at 8A and offers numerous protection functions. These protection functions (over-voltage protection (OVP), overload protection (OLP), over-current protection (OCP), abnormal over-current protection (AOCP) and internal thermal protection (TSD)) protect the power supply from adverse electrical events. With user's guide, application notes and schematics, it can quicken the design cycle and drive higher levels of efficiency in power supply designs. The RD212 reference design is an optimal tool for simplifying design, increasing efficiency and conserving space in flat panel TVs, PCs, servers, street lighting and various off-line power supplies.

The RD212 features the FSFR2100, a green FPS™ power switch that integrates a pulse-frequency-modulation (PFM) controller with a high-voltage gate driver, two fast recovery MOSFETs (FRFET®s) and important protection features such as soft-start and burst operation into a thermally-efficient SIP package. This switch offers a soft-switching approach that reduces switching losses, even though the actual switching frequency increases. Through its ZVS technique, switching losses are further reduced allowing the switch to handle up to 200W without a heat sink.

Fairchild offers a comprehensive portfolio of reference designs that simplify system design, reduce board space, ensure system reliability and accelerate time-to-market. With the worldwide energy concerns, designers are increasingly relying on semiconductor suppliers to come up with innovative ways to improve efficiency during normal operation as well as during standby mode. By offering a production-ready design, reference designs are instrumental in enabling OEMs to shorten their design time and bring their system to the market quicker.

Complementing the RD212 reference design is the FEB212 evaluation board that contains a user's guide, application notes and a full tested board to evaluate your design.

Price: US $68.75

Contact Information:
To contact Fairchild Semiconductor about this reference design, please go to:
http://www.fairchildsemi.com/cf/sales_contacts/.
For information on other products, design tools and sales contacts, please visit:
http://www.fairchildsemi.com/referencedesign
http://www.fairchildsemi.com.

About Fairchild Semiconductor:

Fairchild Semiconductor (NYSE: FCS) is a global leader delivering energy-efficient power analog and power discrete solutions. Fairchild is The Power Franchise®, providing leading-edge silicon and packaging technologies, manufacturing strength and system expertise for consumer, communications, industrial, portable, computing and automotive systems. An application-driven, solution-based semiconductor supplier, Fairchild provides online design tools and design centers worldwide as part of its comprehensive Global Power Resource℠. Please contact us on the web at www.fairchildsemi.com