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Semtech Targets Power Over Ethernet Market at Major Telecom OEMs with New Addition to RailClamp® Pla

RClamp0524S is the First Dual Array TVS Device to Protect Data Lines on Power Over Ethernet Circuits; Robust Circuit Protection for Notebooks, VoIP Phones and Industrial PoE Applications

Camarillo, California - **June 25, 2009**

Semtech Corp. (Nasdaq: SMTC), a leading supplier of analog and mixed-signal semiconductors, today announced the [RClamp0524S](#), the first [circuit protection device](#) with an advanced split-pad transient voltage suppression (TVS) architecture designed to protect Power Over Ethernet (POE) interfaces from electrical surges and transients.

The four-line RClamp0524S' unique design incorporates two surge-rated, low capacitance [TVS diode arrays](#) to clamp fast rise-time transient voltage spikes to a safe threshold. This RailClamp® platform device safeguards submicron CMOS ICs from electrical surges including electrostatic discharge (ESD), cable discharge events (CDE), electrical fast transients (EFT) and residual lightning surges.

The TVS arrays present a 5V working voltage and offer low line-to-line capacitance to preserve signal integrity on high-speed interfaces. As PoE signal pairs reside at different DC potentials, Semtech's novel split-pad TVS architecture achieves the critical electrical isolation needed between PoE differential pairs while also maintaining robust surge immunity on individual line pair.

Packaged in a SOT-23 6L package, the RClamp0524S' integrated diode arrays feature an efficient flow-through layout, ideal for PCB trace routing and mitigating parasitics in applications such as Wireless Access Points, VoIP Telephony, and Digital Surveillance Cameras. The RClamp0524S can be located on the PCB or inside the RJ-45 connector where board space is limited. While offering designers the benefit of significant board space savings, the RClamp0524S' small size and ROHS & WEEE compliance is consistent with Semtech's initiative to be a leader in enabling greener technologies.

"The PoE market is anticipating over 40% growth within the next three years, driven by the need for remote powered applications. As new PoE applications emerge, manufacturers will need to consider their protection schemes to be PoE certified," said Rick Hansen, Director of Product Marketing for Protection Products at Semtech. "The split-pad TVS architecture of the RClamp0524S makes it a better alternative than discrete solutions, providing critical savings in terms of BOM costs and board space while also offering all of the low clamping, low capacitance and durability advantages of Semtech's solid-state silicon-avalanche technology."

Key Features of the RClamp0524S

- ESD protection for high-speed data lines to IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact); EFT protection to IEC 61000-4-4 40A (5/50ns)
- Split-pad TVS diode arrays
- Flow through package
- Protects four I/O lines
- Low capacitance: 5pF maximum
- Low clamping voltage
- Low operating voltage: 5.0V

Pricing and Availability

The RClamp0524S (order code: RClamp0524S.TCT) is available immediately in production quantities and is priced at \$0.37 each in 1,000-piece lots. Semtech offers comprehensive design assistance, including field- and factory-based support. Data sheets, volume pricing, and delivery quotes, as well as evaluation kits and samples, are available by contacting info@semtech.com.

Source : Semtech News Letter