



Littelfuse SIDACTor® Protection Thyristor Safeguards CVBS Signal Lines Against Damaging Overvoltage Transients

High power density, small-footprint, surface-mount SOD-123FL solution simplifies PCB design

CHICAGO, March 4, 2019 — [Littelfuse, Inc.](#) today introduced the first PxxxxS4xLRP Series SIDACTor® Protection Thyristor, a robust solution for protecting Composite Video Blanking Sync (CVBS) signal lines and ports from damaging overvoltage transients. The combination of 6V operating voltage and 100A 5/310µs surge peak current capability and a low junction capacitance rating make the P0080S4BLRP ideal for protecting a wide range of equipment needs data line protection. The PxxxxS4xLRP Series provides a compact, surface-mount solution which simplifies designing it into PCB layout.

Typical applications for the PxxxxS4xLRP Series SIDACTor Protection Thyristor include:

- TV/camera CVBS cables
- data communications
- Set Top Boxes (STBs)
- RS-485, RS-232 data lines
- CAN Bus

“For these applications, peak-to-peak signal voltage is within 1.1V and driver IC Vcc voltage is less than 5V, so a protection component with a voltage higher than 6V is generally recommended,” said Jack Tung, Product Manager of SIDACTor Protection Thyristors, Electronics Business Unit at Littelfuse. “The PxxxxS4xLRP Series’ minimum operating voltage of 6V and 100A 5/310µs surge peak current capability meets this requirement and its junction capacitance of less than 30pF is well-suited for 4.43MHz CVBS signals.”

The PxxxxS4xLRP Series SIDACTor Protection Thyristor offers these key benefits:

- Compared to existing solutions on the market, it provides higher power density in a smaller footprint, which makes it preferable for compact product designs.
- An operating voltage of 6V with 100A 10/700µs, 4kV surge peak current capability, and junction capacitance of < 30pF make it well-suited for low voltage signal line protection applications, such as 4.43MHz CVBS signals, RS-484, RS-323 data lines or CAN Bus.
- The compact surface-mount SOD-123FL package simplifies designing it into PCB layouts.

**Availability**

The PxxxxS4xLRP Series SIDACTor Protection Thyristor is available in SOD-123FL packaging in tape and reel format in quantities of 3,000. Sample requests may be placed through authorized Littelfuse distributors worldwide. For a listing of Littelfuse distributors, please visit Littelfuse.com.