



## Description

RClamp0554S is a low capacitance TVS array designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and Lightning.

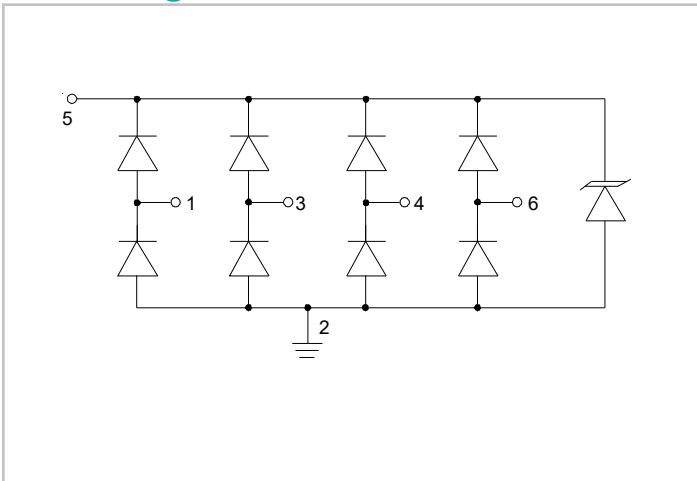
The unique design incorporates surge rated, low capacitance steering diodes and a TVS diode in a single package. During transient conditions, the steering diodes direct the transient current to either the positive side of the power supply line or to ground. The internal TVS diode prevents over-voltage on the power line, protecting any downstream components.

RClamp0554S is in a 6-lead SOT-23 package. The leads are finished with lead-free matte tin. Each device will protect up to four high-speed lines.

## Applications

- 10/100/1000 Ethernet
- USB 2.0 Power and Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- Notebook Computers
- IEEE 1394 Firewire Ports

## Circuit Diagram



## Features

- ESD protection for high-speed data lines to
  - IEC 61000-4-2 (ESD): 25kV (Contact), 30kV (Air)
  - IEC 61000-4-4 (EFT): 40A (5/50ns)
  - IEC 61000-4-5 (Lightning): 25A (8/20µs)
- Array of surge rated diodes with internal TVS Diode
- Small package saves board space
- Protects four I/O lines and Voltage Bus
- Low capacitance: 5pF (VR=0V)
- Low clamping voltage
- Low operating voltage: 5V
- Solid-state silicon-avalanche technology

## Mechanical Characteristics

- JEDEC SOT-23 6L package
- Pb-Free, Halogen Free, RoHS/WEEE Compliant
- Lead Finish: NiPdAu
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code + Date Code
- Packaging: Tape and Reel

## Schematic & Pin Configuration

