



RClamp[®]0554S

KEY FEATURES

- High surge immunity: $I_{pp}=25A, 8x20\mu s$
- 4-line protection array
- Superior clamping voltage
- Low capacitance: 5pF
- Small package (SOT-23L)

BENEFITS

- Protection for lightning, ESD and Cable Discharge
- Ideal for protecting two differential pairs
- Protects sensitive next generation transceivers
- Provides minimal loading to preserve signal integrity
- Footprint compatible with SRV05-4

APPLICATIONS

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

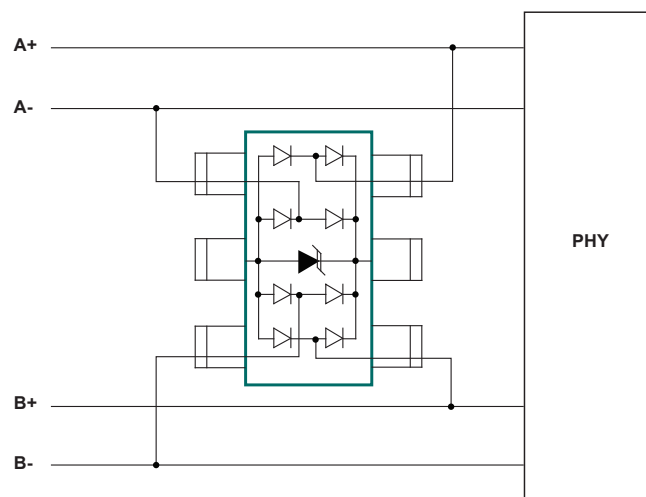
PACKAGING

- JEDEC SOT-23 6L



Low Clamping Performance TVS Array for ESD, Cable Discharge & Surge Protection

The RClamp[®]0554S's unique design incorporates eight surge rated, low capacitance steering diodes and a TVS diode in a single package. During transient conditions, the steering diodes direct the transient 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.



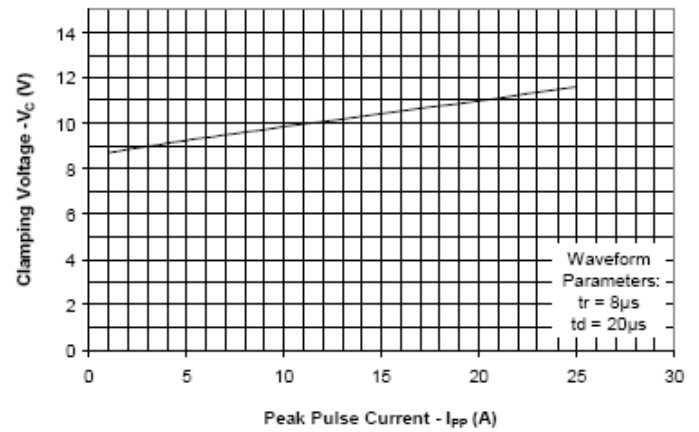
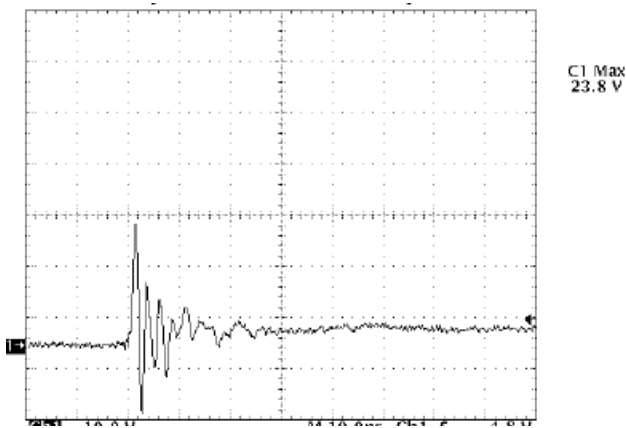
RClamp[®]0554S

| RClamp® 0554S - Absolute Maximum Rating | | | |
|--|-----------|-------------|-------|
| Maximum Rating | Symbol | Value | Unit |
| Peak Pulse Power (tp = 8/20us) | P_{pk} | 375 | Watts |
| Peak Pulse Power (tp = 8/20μs) | I_{pp} | 25 | A |
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | V_{ESD} | ±30 ±25 | kV |
| Operating Temperature | T_j | -55 to +125 | ° C |
| Storage Temperature | T_{STG} | -55 to +150 | ° C |

| Electrical Characteristics (T=25°C) | | | | | | |
|-------------------------------------|-----------|---------------------------------------|-----|-----|-----|-------|
| Parameter | Symbol | Condition | Min | Typ | Max | Units |
| Reverse Stand-Off Voltage | V_{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | | 6 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 5V, T = 25 ° C$ | | | 0.5 | μA |
| Clamping Voltage | V_C | $I_{pp} = 25A, tp = 8/20μs$ | | | 15 | V |
| Junction Capacitance | C_j | Any I/O to Gnd $V_R = 0, f = 1MHz$ | | | 5 | pF |
| | | I/O to I/O $V_R = 0, f = 1MHz$ | | 3 | | pF |

**ESD CLAMPING
(8KV CONTACT PER IEC 61000-4-2)**

**SURGE CLAMPING
(TP = 8/20μS)**



ORDERING INFORMATION

| RClamp0554S.TCT | | |
|-----------------|--------------|-----------|
| Working Voltage | Qty Per Reel | Reel Size |
| 5V | 3,000 | 7 inches |



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