



## RClamp<sup>®</sup>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

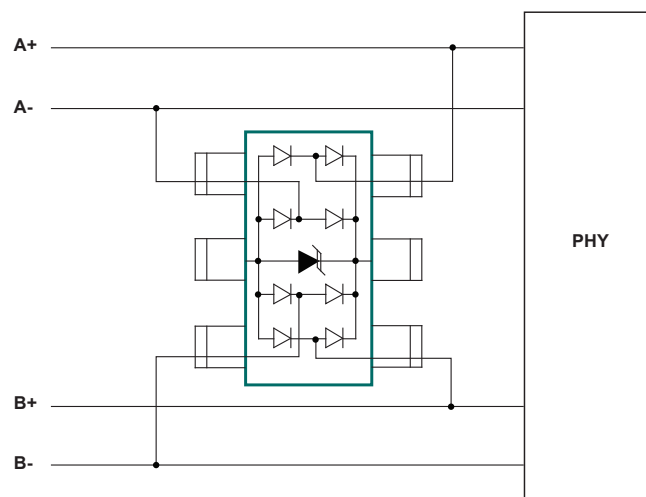
### PACKAGING

- JEDEC SOT-23 6L



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

The RClamp<sup>®</sup>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.



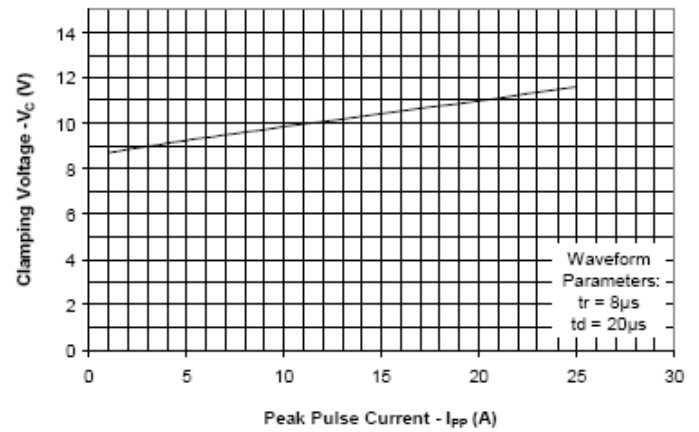
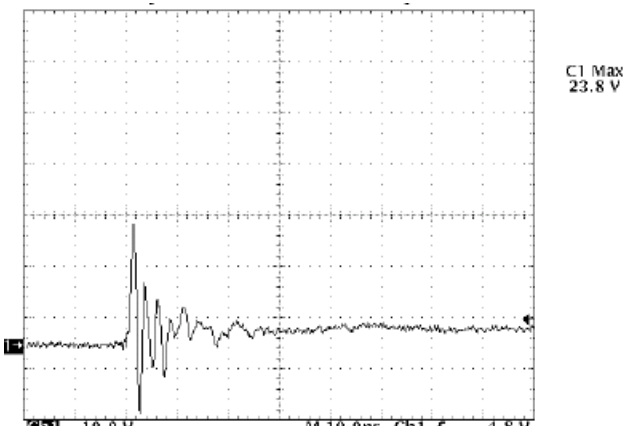
RClamp<sup>®</sup>0554S

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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