



RClamp®0506T

KEY FEATURES

- Low profile (0.4mm high, 0.5mm pitch)
- Low capacitance (0.3pF line-to-line, typical)
- Flow-through design
- Ultra low clamping voltage

BENEFITS

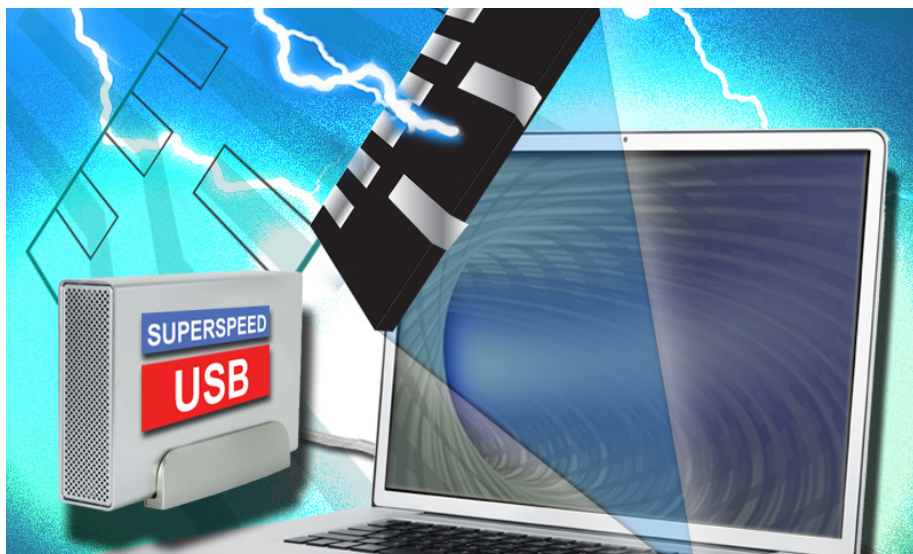
- Meets low profile requirements
- Maintains signal integrity
- Reduces trace discontinuities for easy PCB layout
- Protects latest sensitive IC's

APPLICATIONS

- USB 3.0
- HDMI 1.4
- μ SD card interfaces
- MMC card interfaces
- MDDI/MIPI interfaces

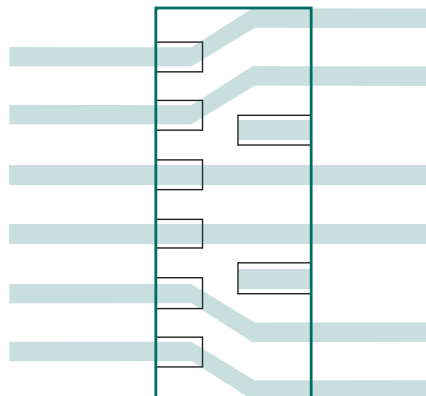
PACKAGING

- 8-pin SLP3313P6T



Low Capacitance TVS Array

The RClamp®0506T has a maximum capacitance of only 0.80pF. This allows it to be used on circuits operating in excess of 2.0GHz without signal attenuation. They may be used to meet the ESD immunity requirements of IEC 61000-4-2, Level 4 (± 15 kV air, ± 8 kV contact discharge). Each device is designed to protect six lines operating up to 5 volts. RClamp0506T measures 3.3 x 1.3 x 0.4mm. The leads are spaced at a pitch of 0.5mm and are finished with lead-free NiPdAu. They are designed for easy PCB layout by allowing the traces to run straight through the device. The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, USB 3.0, MDDI, and multimedia card interfaces.



RClamp0506T flow-through design

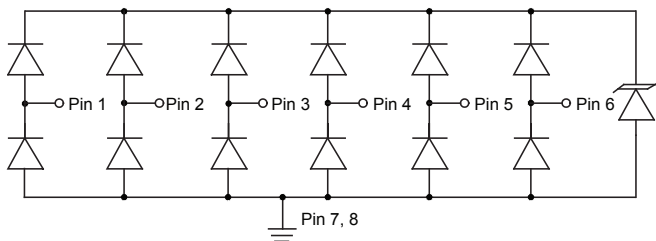
RClamp®0506T - Absolute Maximum Rating

Maximum Rating	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20us)	P _{pk}	75	Watts
Peak Pulse Power (tp = 8/20us)	I _{pp}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±18 ±12	kV
Operating Temperature	T _j	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

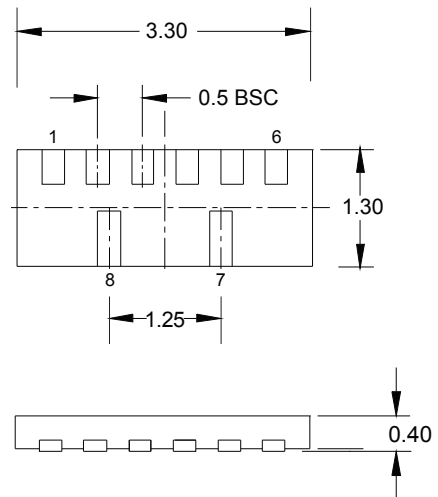
Electrical Characteristics (T=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}		6.5	8	11	V
Reverse Leakage Current	I _R	V _{RWM} = 5V, T = 25°C		0.005	0.100	µA
Clamping Voltage	V _C	I _{pp} = 5A, tp = 8/20µs			15	V
Junction Capacitance	C _j	Any I/O to Gnd V _R = 0, f = 1MHz		0.7	0.8	pF
		I/O to I/O V _R = 0, f = 1MHz			0.4	

CIRCUIT DIAGRAM



PACKAGE DIMENSIONS



ORDERING INFORMATION

RClamp0506T.TCT		
Working Voltage	Qty Per Reel	Reel Size
5V	3,000	7 inches



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