



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

FEATURE 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
- μSD card interfaces
- MMC card interfaces
- MDDI/MIPI interfaces

PACKAGING

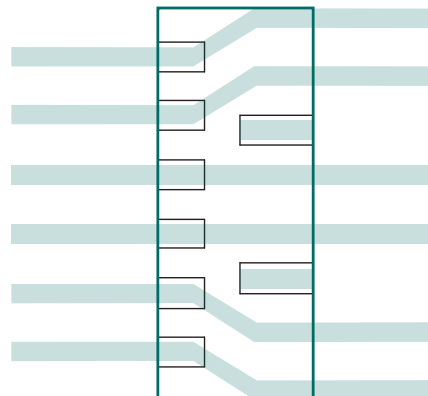
- 8-pin SLP3313P6T



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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 ($\pm 15\text{kV}$ air, $\pm 8\text{kV}$ 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.



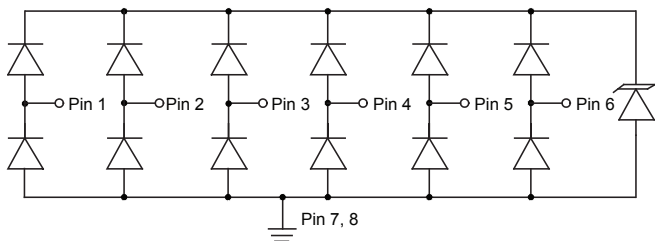
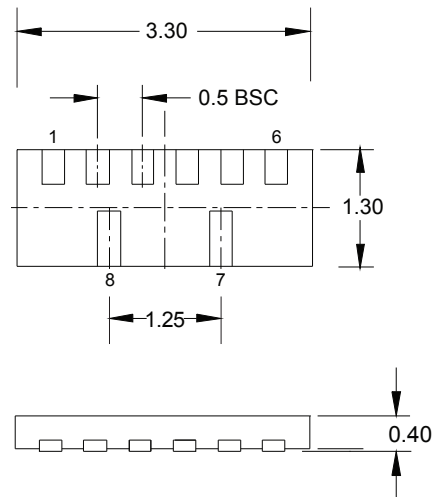
RClamp0506T flow-through design

RClamp® 0506T - Absolute Maximum Rating

Maximum Rating	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{pk}	75	Watts
Peak Pulse Power ($t_p = 8/20\mu s$)	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	$V_{RWM} = 5V, T = 25^\circ C$		0.005	0.100	μA
Clamping Voltage	V_C	$I_{pp} = 5A, t_p = 8/20\mu s$			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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