

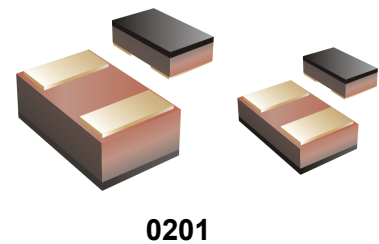
## Description

The PROSEMI Polymer ESD Suppressors protect valuable high-speed data circuits from ESD damage without distorting data signals as a result of its ultra-low (0.05pF typical) capacitance.



## Features

- ESD protection for high speed data lines to IEC61000-4-2
- ESD contact discharge typical 8KV, max 15KV
- ESD air discharge typical 15KV, max 25KV
- Surface mount
- Extremely low capacitance
- Very low leakage current
- Fast response time
- Bi-directional ESD protection
- Lead free solder termination
- The best ESD protection for high frequency, low voltage applications



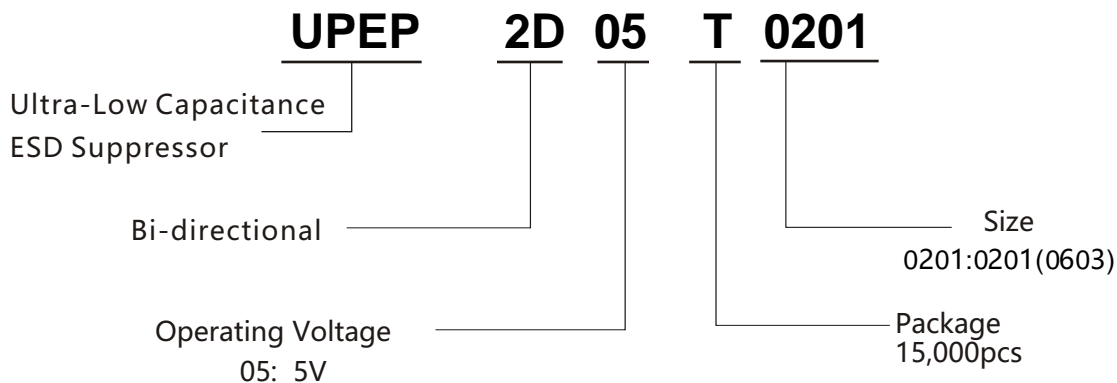
## Application

- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)
- Display Port Interface (DP)
- Unified Display Interface (UDI)
- Mobile Display Digital Interface (MDDI)
- Gigabit Ethernet
- USB2.0 and USB3.0
- IEEE1394 interface



Bi-directional

## Part Numbering System



## Absolute Maximum Ratings

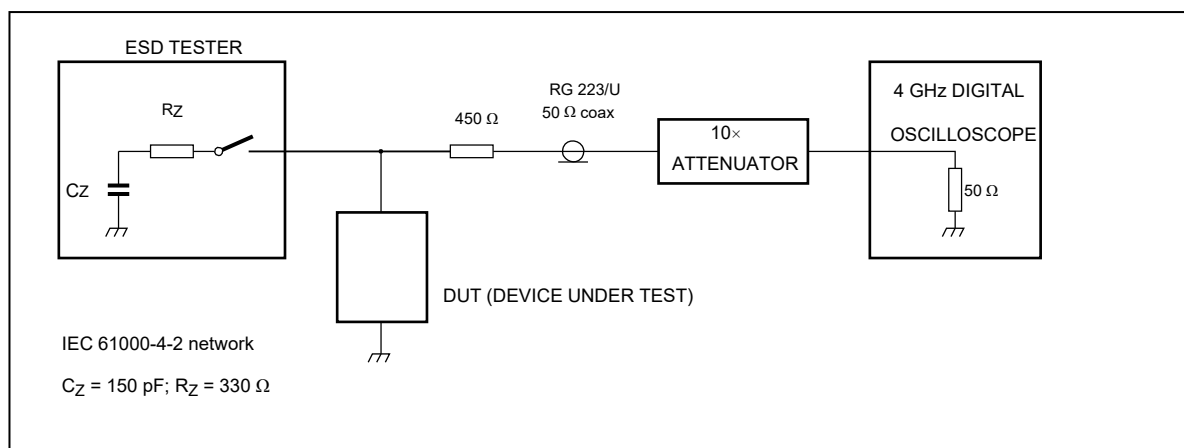
Parameter	Symbol	Value	Unit
Maximum Contact discharge voltage Per IEC61000-4-2	--	15KV	V
Maximum Air discharge voltage Per IEC61000-4-2	--	25KV	V
Maximum Operating temperature	T <sub>OPER</sub>	-55 to+125	°C
Maximum Storage temperature	T <sub>STG</sub>	-55 to+125	°C
Maximum lead temperature for soldering during 1 Os	T <sub>L</sub>	260	°C

## Electrical Characteristics (T<sub>A</sub>=25°C)

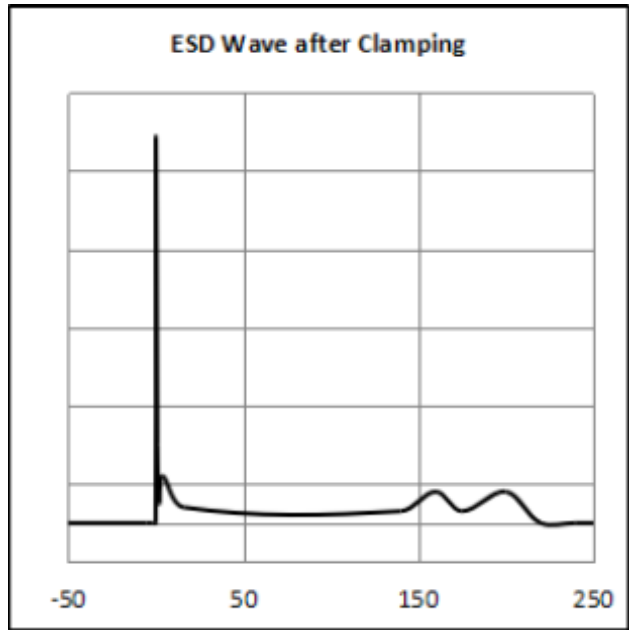
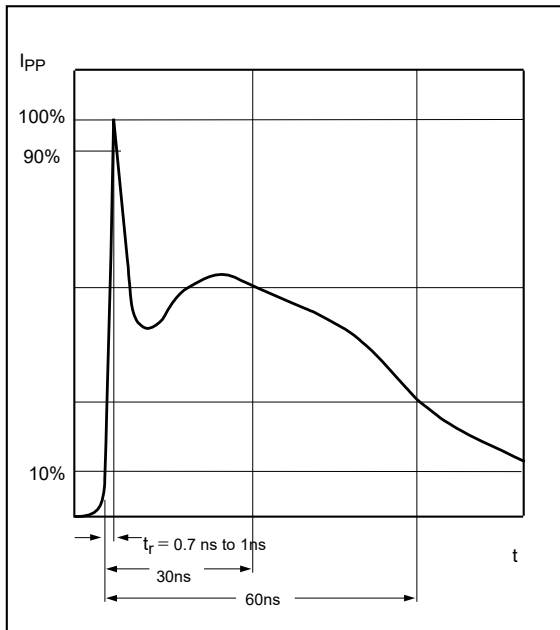
Parameter	Symbol	Test Conditions	Min	Type	Max	Unit
RatedVoltage	V <sub>R</sub>	---	--	--	5	V
Clamping Voltage	V <sub>C</sub>	IEC61000-4-2 8KV contact discharge	--	35	--	V
Trigger Voltage	V <sub>T</sub>	IEC61000-4-2 8KV contact discharge	--	300	--	V
Leakage Current	I <sub>L</sub>	DC 5V shall be applied on component	--	0.01	0.10	uA
Capacitance	C <sub>P</sub>	V <sub>R</sub> = 0V, f = 1MHz	--	0.05	--	pF

\*Note: 1. Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.  
2. After reliability tests such as high temp storage, temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

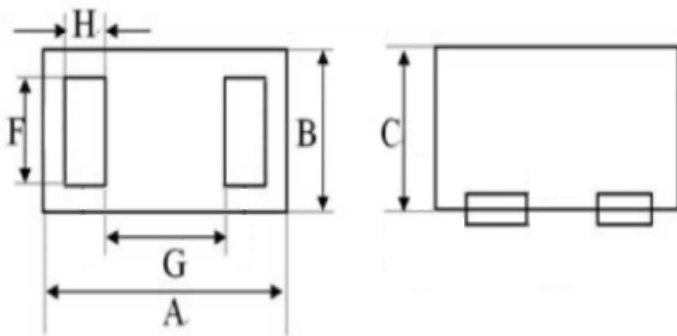
## ESD Clamping Test



### ESD Clamping Test Waveforms

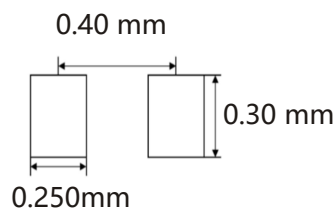


### Dimensions



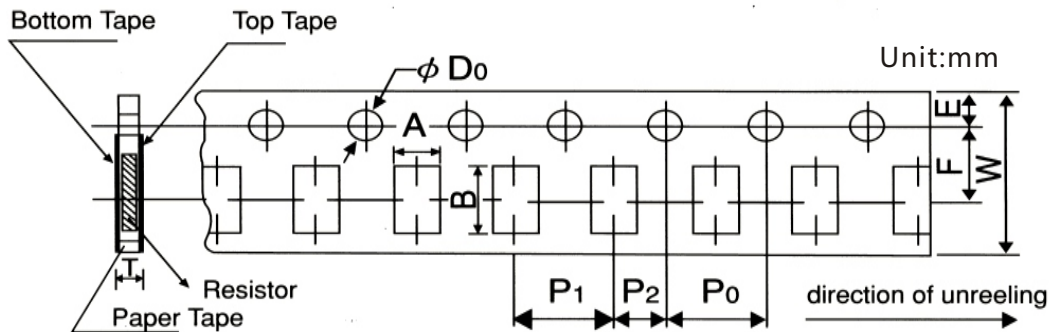
Symbol	Dimension			Unit
	Min	Typ	Max	
A	0.50	0.60	0.70	mm
B	0.20	0.30	0.40	
C	0.20	0.30	0.40	
H	0.18	0.20	0.22	
F	0.25	0.275	0.30	
G	0.16	0.18	0.20	

### Soldering Pad

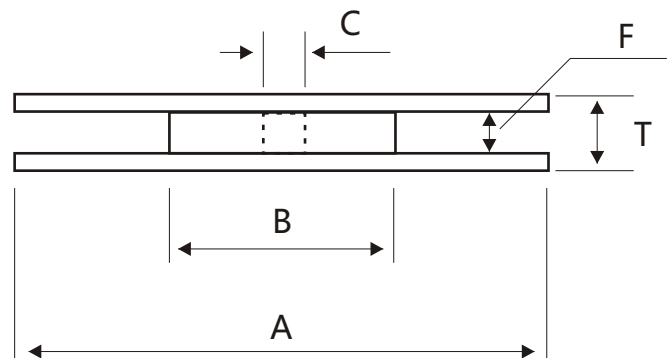
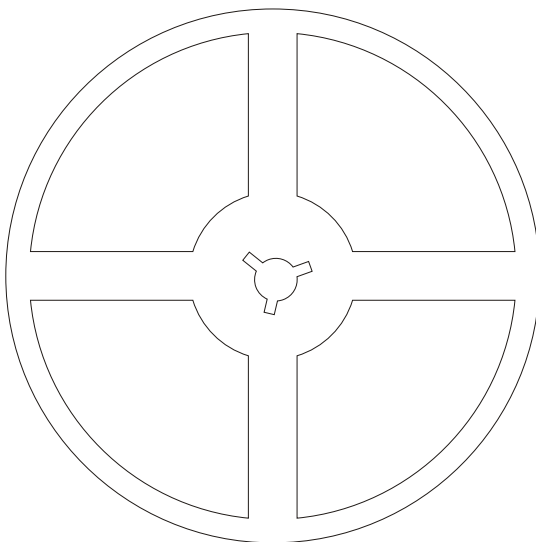


Note: Print solder in thickness of 0.08mm recommended

## Carrier Tape Dimensions



Type	A	B	W	F	E	P <sub>1</sub>	P <sub>2</sub>	P <sub>0</sub>	D <sub>0</sub>	T
UPEP (0201)	0.38±0.05	0.68±0.05	8.0±0.2	3.5±0.05	1.75±0.1	2.0±0.1	2.0±0.05	4.0±0.1	Φ1.5±0.1	0.45±0.1



A	B	C	F	T
180±1.5	51.0±1.0	13.0±1.0	9.4±1.0	12.4±2.0

## Storage Conditions and Shelf Life

Temperature: 5°C~35°C, Humidity: 40%~75%  
2 years from manufacturing date

## Packaging

UPEP2D05T0201: quantity 15,000 pieces

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [PROSEMI](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#)  
[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)  
[HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [SCM1293A-04SO](#)  
[ESD200-B1-CSP0201](#) [E6327](#) [SM12-7](#) [CEN955 W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [ESD101-B1-02EL](#)  
[E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#) [P4KE91CATR](#) [P6KE120A](#)  
[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)