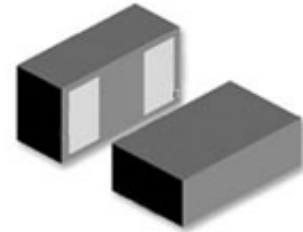


## Description

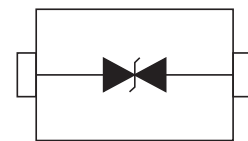
This device is an ultra low capacitance ESD product designed to protect very high speed data interfaces. GSEDP6B0005 has a typical capacitance of only 0.05pF (I/O toGND),and it can be used to meet the ESD immunity requirements of IEC61000-4-2 (15KV air, 8KV contact discharge).



**0402**

## Features

- Surface mount
- Extremely low capacitance
- Very low leakage current
- Fast response time
- Bi-directional ESD protection
- Lead free solder termination
- ESD protection for high-speed data lines to: IEC 61000-4-2
- ESD contact discharge typical 8KV, max 15KV
- ESD air discharge typical 15KV, max 25KV



**Schematic Diagram**

## Applications

- 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
- USB 2.0 and USB 3.0
- IEEE 1394 interface

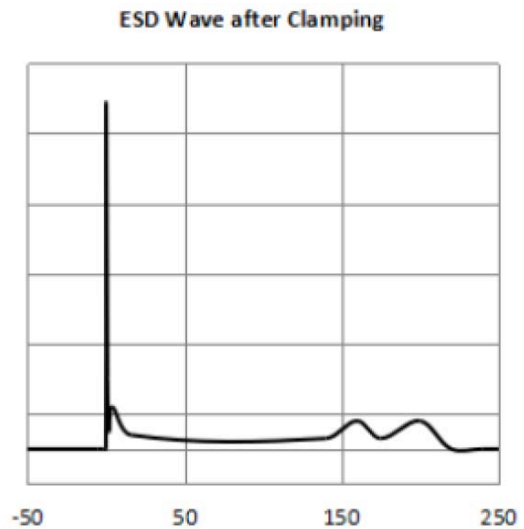
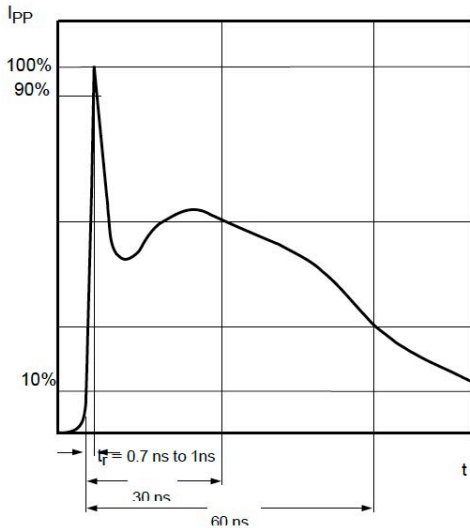
**Absolute Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Operating Temperature	$T_{\text{OPER}}$	-55 To +125	$^{\circ}\text{C}$
Storage Temperature	$T_{\text{STG}}$	-55 To +125	$^{\circ}\text{C}$

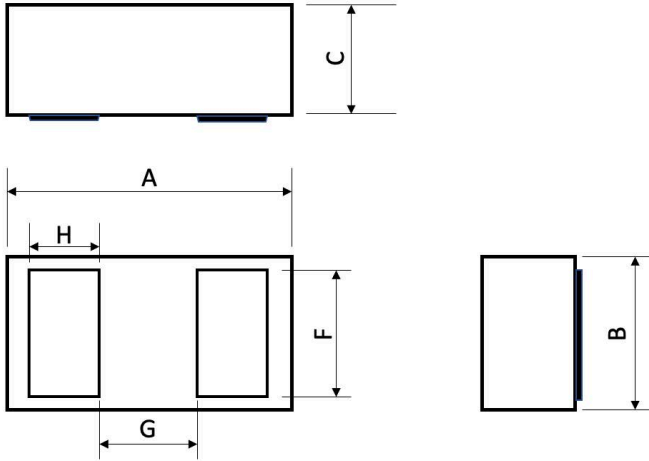
**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Rated Voltage	$V_R$	-	-	-	6	V
Trigger Voltage	$V_T$	IEC 61000-4-2 8KV Contact Discharge	-	300	-	V
Clamping Voltage	$V_C$	IEC 61000-4-2 8KV Contact Discharge	-	35	-	V
Leakage Current	$I_L$	DC 6V shall be applied on component	-	0.01	0.10	$\mu\text{A}$
Capacitance	$C_P$	$V_R=0\text{V}$ , $f=1\text{MHz}$	-	0.05	-	pF

**ESD Clamping Test Waveforms**

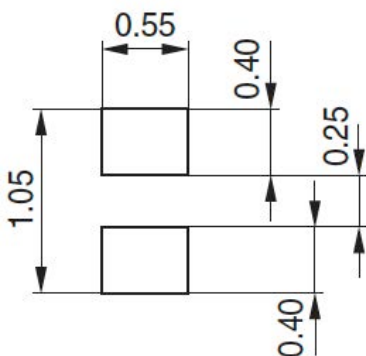


**Package Outline Dimensions (0402)**



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.950	1.050	0.037	0.041
B	0.450	0.550	0.018	0.022
C	0.320	0.400	0.013	0.016
H	0.280	0.320	0.011	0.013
F	0.410	0.450	0.016	0.018
G	0.320	0.360	0.013	0.014

**Recommended Pad Layout**



Unit: mm