

Pin Configuration

### Applications

- USB 2.0 and USB 3.0
- HDMI 1.3 and HDMI 1.4
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Portable Electronics and Notebooks

### Specification Features:

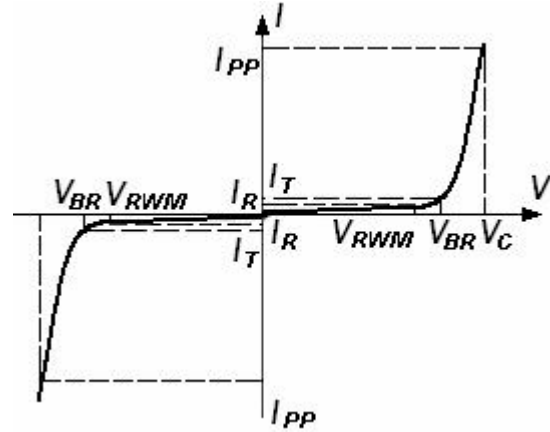
- Ultra small package: 1.0x0.6x0.5mm
- Ultra low capacitance: 0.5pF
- Operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 22\text{kV}$
  - IEC61000-4-5 (Lightning) 4A (8/20 $\mu\text{s}$ )
- RoHS Compliant

### Absolute Ratings ( $T_{\text{amb}}=25^{\circ}\text{C}$ )

Symbol	Parameter	Value	Units
$P_{\text{PP}}$	Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	90	W
$T_L$	Maximum lead temperature for soldering during 10s	260	$^{\circ}\text{C}$
$T_{\text{stg}}$	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
$T_{\text{op}}$	Operating Temperature Range	-40 to +125	$^{\circ}\text{C}$
$T_j$	Maximum junction temperature	150	$^{\circ}\text{C}$
	IEC61000-4-2 (ESD)	air discharge contact discharge	$\pm 20$ $\pm 15$ KV
$I_{\text{PPM}}$	IEC61000-4-5 (8/20 $\mu\text{s}$ )	4	A

Electrical Parameter

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified. VF = 0.9V at IF = 10mA

Device	Device Marking	$V_{RWM}$ (V)	$I_R$ ( $\mu$ A) @ $V_{RWM}$	$V_{BR}$ (V)@ $I_T$ (Note 1)	$I_T$	$V_C$ (V) @ $I_{PP}=5 A^*$	$V_C$ (V) @ Max $I_{PP}^*$	$I_{PP}$ (A)*	$P_{PK}$ (W)*	$C$ (pF)
		Max	Max	Min	mA	Typ	Max	Max	Max	Typ
ESD8DU5V0	N	5.0	1.0	6.0	1.0	13.0	22.0	4.0	90	0.55

\*Surge current waveform per Figure 1.

1.  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C.

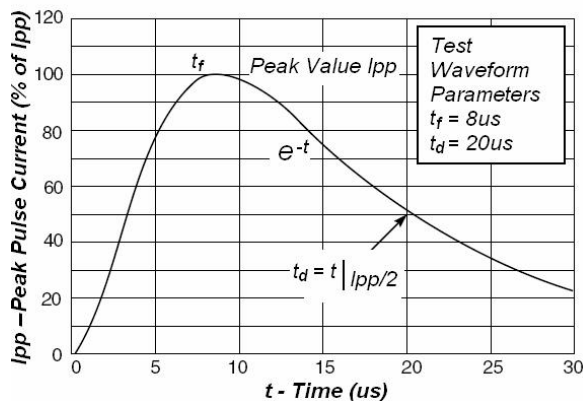


Fig1. IEC61000-4-5 Waveform

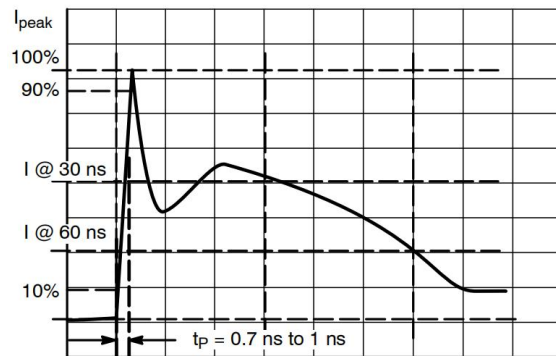
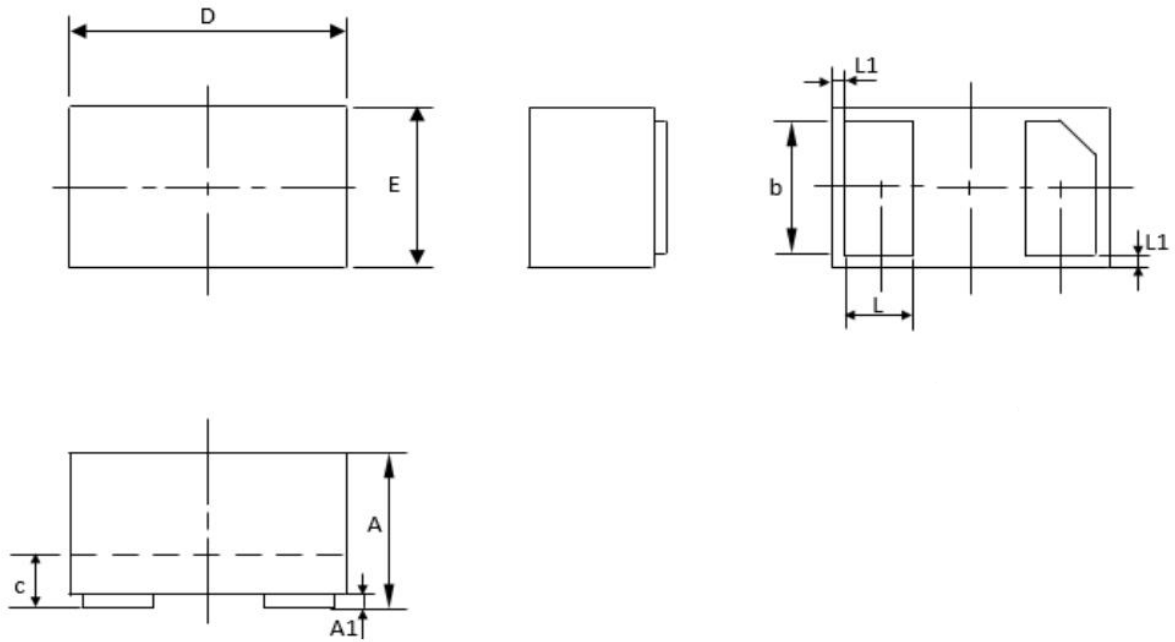


Fig2. IEC61000-4-2 Waveform

OUTLINE AND DIMENSIONS

SOD882



SOD882			
Dim	Min	Typ.	Max
A	0.46	0.48	0.50
A1	0	0.02	0.05
b	0.45	0.5	0.55
c	0.1	0.12	0.14
D	0.95	1.00	1.05
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.035	0.05	0.065
h	0.07	0.12	0.17
崩胶	0	0.06	0.06
All Dimensions in mm			

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