

## Electrostatic discharge Protection Devices(ESD)

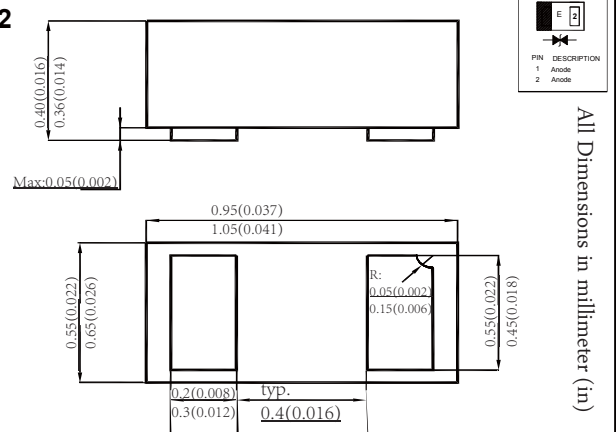
### Features

- Low Leakage Current
- Bi-direction high reliability

### MECHANICAL DATA

- Case style:SOD-882 molded plastic
- Polarity:color band denotes positive end  
( cathode ) except for bidirectional
- Mounting position:any

### SOD-882



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Contact Air	$V_{ESD}$	$\pm 30$ $\pm 30$	KV
Peak Pulse Power On FR-5 Board <sup>1)</sup>	$P_D$	300	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	400	°C/W
Junction Temperature	$T_j$	- 55 to + 150	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

<sup>1)</sup>FR-5 = 1.0 x 0.75 x 0.62 in.

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

Type	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage <sup>2)</sup>			Clamping Voltage <sup>3)</sup>	Reverse Peak Pulse Current	Capacitance	Clamping Voltage
	$V_{RWM}$	$I_R$ at $V_{RWM}$	$V_{BR}$		at $I_T$	$V_C$ at $I_{PP}$	$I_{PP}$	$C_j$	$V_C$
	Max. (V)	Max. ( $\mu\text{A}$ )	Min. (V)	Max. (V)	(mA)	Max. (V)	(A)	Typ. (pF)	Per IEC61000-4-2 <sup>4)</sup>
ESDBL5V0BP	5	1.0	5.8	7.8	1	12.5	1	15	Figures 1 and 2 See Below

<sup>2)</sup>  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C.

<sup>3)</sup> Surge current waveforms per Figure 5.

<sup>4)</sup> For test procedure see Figures 3

**Marking Code: E**

# RATINGS AND CHARACTERISTIC CURVES

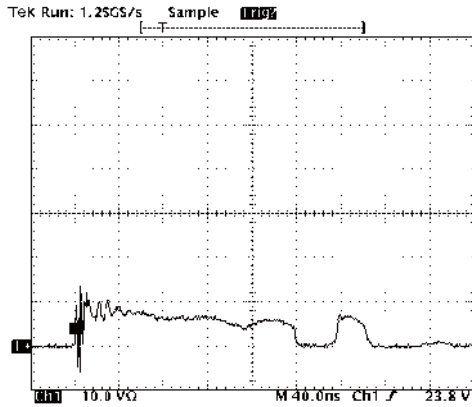


Figure 1. ESD Clamping Voltage Screenshot  
Positive 8 kV Contact per IEC61000-4-2

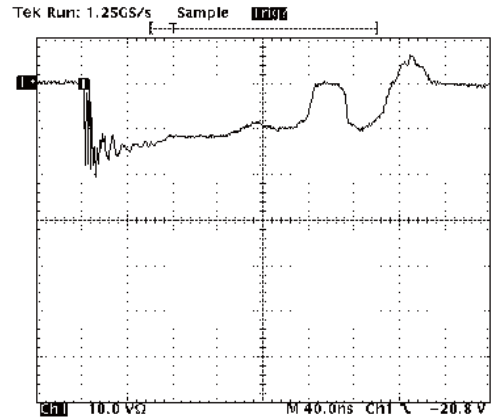


Figure 2. ESD Clamping Voltage Screenshot  
Negative 8 kV Contact per IEC61000-4-2

### IEC 61000-4-2 Spec.

Level	Test Voltage (kV)	First Peak Current (A)	Current at 30 ns (A)	Current at 60 ns (A)
1	2	7.5	4	2
2	4	15	8	4
3	6	22.5	12	6
4	8	30	16	8

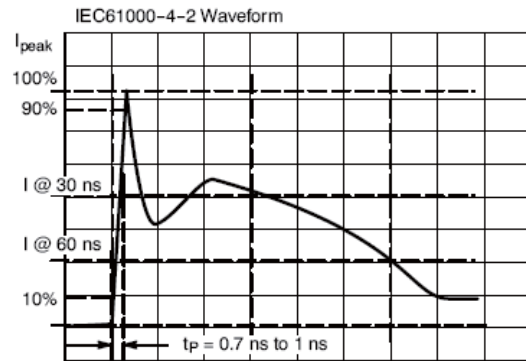


Figure 3. IEC61000-4-2 Spec

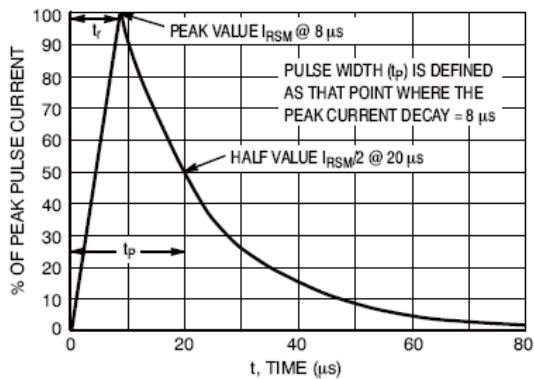


Figure 5. 8 X 20  $\mu$ s Pulse Waveform