

Electrostatic discharge Protection Devices(ESD)

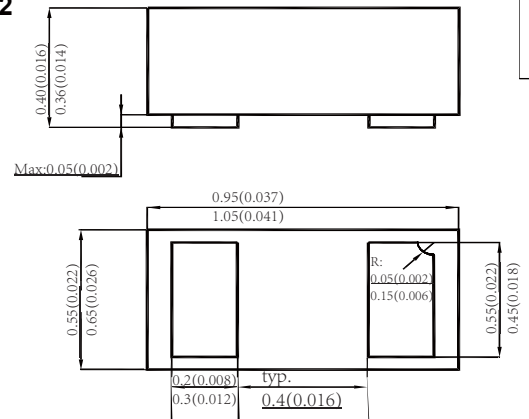
Features

- 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



All Dimensions in millimeter (in)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Contact Air	V_{ESD}	± 30 ± 30	KV
Peak Pulse Power On FR-5 Board ¹⁾	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

¹⁾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 ²⁾			Clamping Voltage ³⁾	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. (μA)	Min. (V)	Max. (V)	(mA)	Max. (V)	(A)	Typ. (pF)	Per IEC61000-4-2 ⁴⁾
ESDBL5V0BP	5	1.0	5.8	7.8	1	12.5	1	15	Figures 1 and 2 See Below

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

³⁾ Surge current waveforms per Figure 5.

⁴⁾ For test procedure see Figures 3

Marking Code: E

RATINGS AND CHARACTERISTIC CURVES

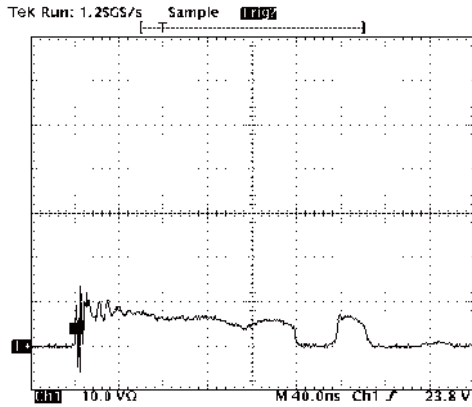


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

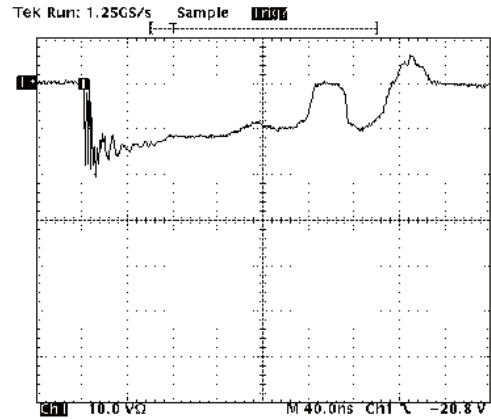


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2

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

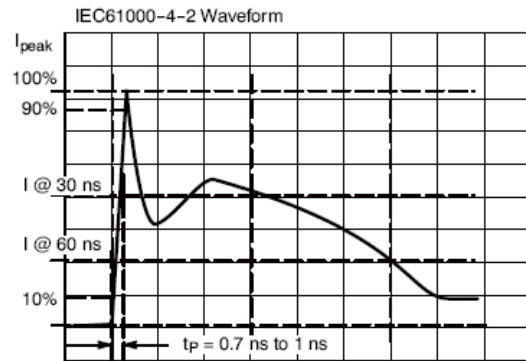


Figure 3. IEC61000-4-2 Spec

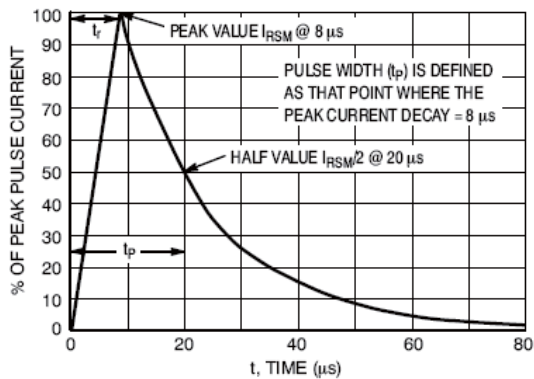


Figure 5. 8 X 20 μs Pulse Waveform