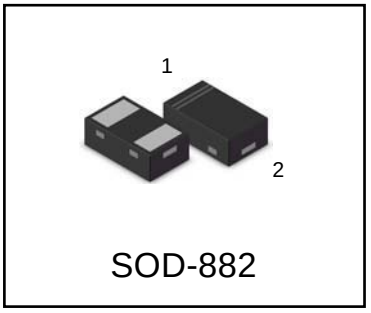
ESD Protection Diodes

Features

- Low clamping voltage
- Complies with IEC 61000-4-2 standards:

  Air discharge: ±20kV

  Contact discharge: ±20kV
- RoHS Compliant



Ordering information

Device	Package	Shipping
FTV05BHUL2	SOD-882	10000/Tape&Reel

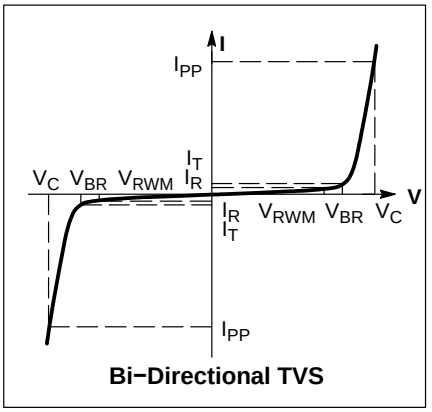
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	300	W
Peak Pulse Current (8/20μs)	I_{PP}	20	A
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted)

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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
P_{pk}	Peak Power Dissipation
C	Capacitance @ V_R = 0 and f = 1.0 MHz



Bi−Directional TVS

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Device	Device Marking	V_{RWM} (V)	I_R (nA) @ V_{RWM}	V_{BR} (V) @ I_T = 1mA (Note 1)		C (pF)	V_C (V) @ I_{PP} = 1 A (Note 2)	I_{PP} (A) t_p=8/20μs	P_{PP} (W)	V_C
		Max	Max	Min	Max	Typ	Max	Max	Max	Per IEC61000−4−2 (Note 3)
FTV05BHUL2	A9	5.0	100	6	9	80	9.5	20	300	Figures 1 and 2 See Below

1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.
2. Surge current waveform per Figure 5.
3. For test procedure see Figures 3 and 4.

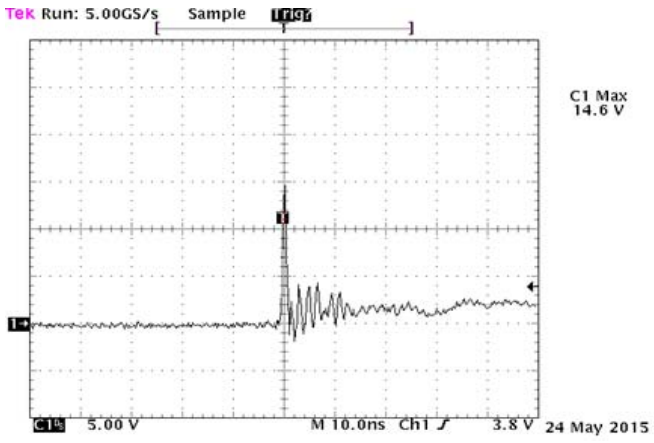


Figure 1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000−4−2

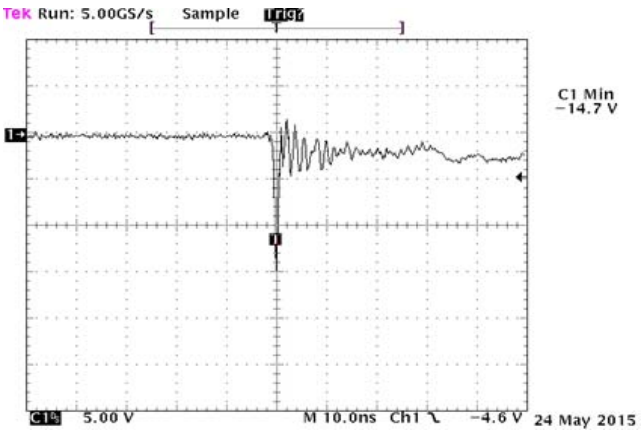


Figure 2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000−4−2

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

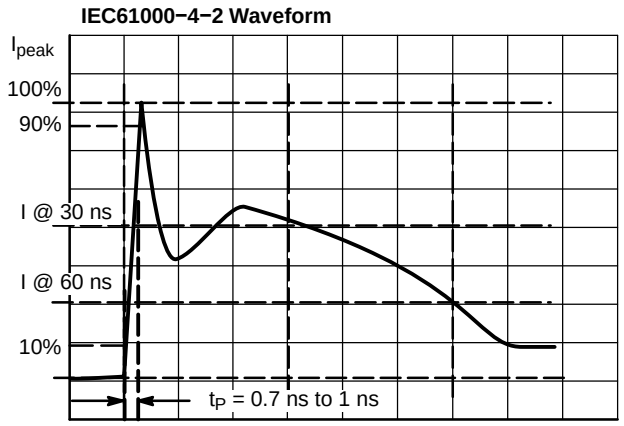


Figure 3. IEC61000−4−2 Spec

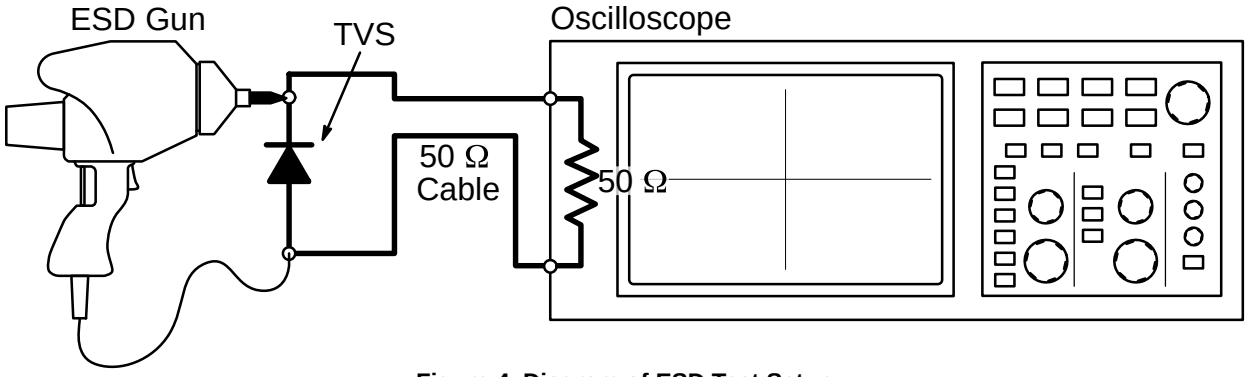


Figure 4. Diagram of ESD Test Setup

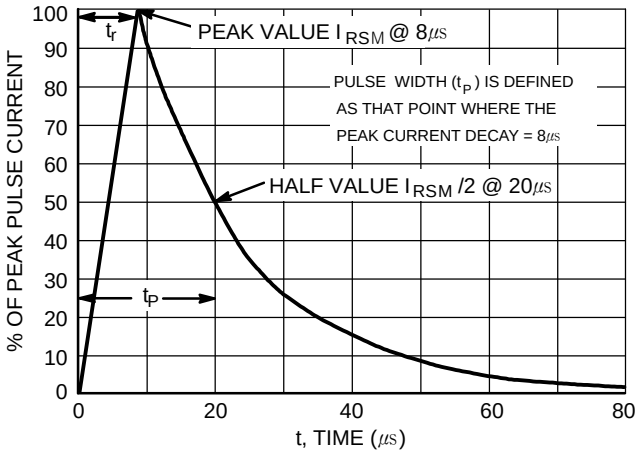
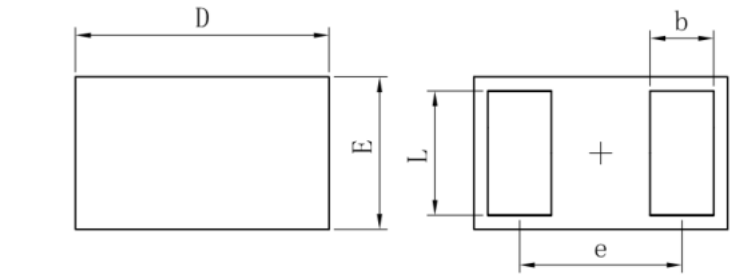
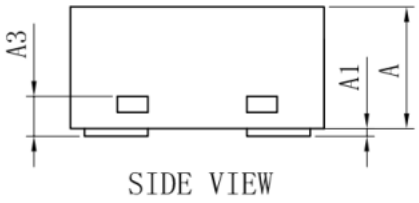


Figure 5. 8 X 20μs Pulse Waveform

OUTLINE AND DIMENSIONS

SOD-882

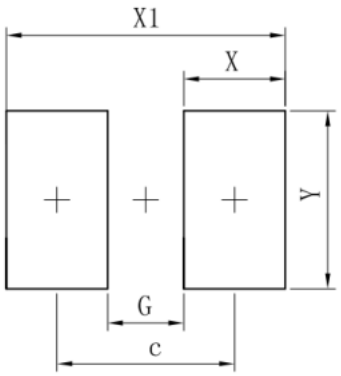




SOD-882			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			

SOLDERING FOOTPRINT

SOD-882



Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70