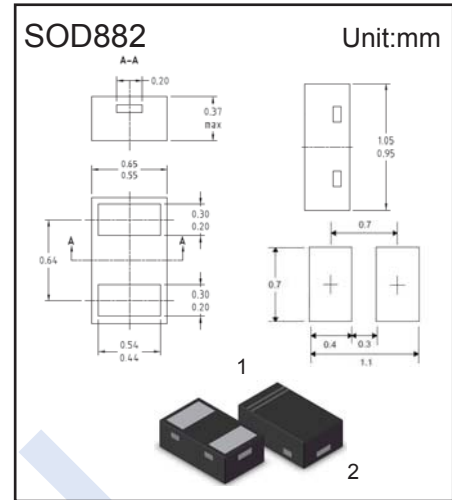


TVS Diodes

ESD8L5.0

■ Features

- Low CLAMPING Voltage
- Ultra Low Capacitance 0.5 pF
- Stand-off Voltage:5V
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2Level 4 ESD Protection



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
IEC61000-4-2 (ESD)	Contact	± 10	KV
	Air	± 15	
Total Power Dissipation on FR-5 Board	P_D	150	m W
Lead Temperature for Soldering During 10s	T_L	260	$^\circ\text{C}$
Junction Temperature	T_J	125	
Storage Temperature Range	T_{stg}	-55 to 150	

■ ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$ unless otherwise noted, $V_F = 1.0\text{ V Max.}$ @ $I_F = 10\text{ mA}$ for all types)

Device	Device Marking	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)	I_T	C (pF)		V_C (V) @ $I_{PP} = 1\text{ A}$ (Note 2)	V_C
		Max	Max	Min	mA	Typ	Max	Max	
ESD8L5.0	D	5.0	1.0	5.4	1.0	0.5	0.9	9.8	Per IEC61000-4-2 (Note 3) 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 and Application Note AND8307/D.

TVS Diodes

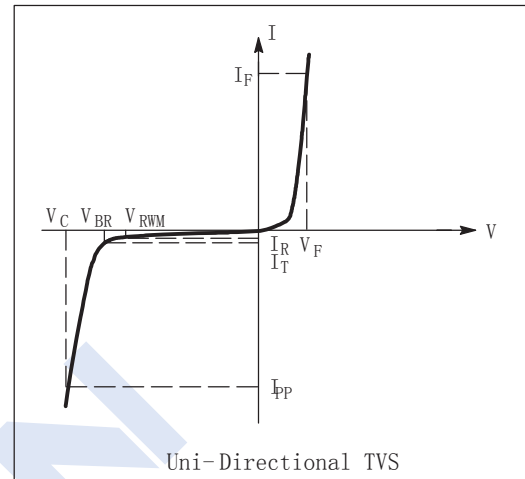
ESD8L5.0

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$ 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
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Capacitance @ $V_R = 0$ and $f = 1.0$ MHz

*See Application Note AND8308/D for detailed explanations of datasheet parameters.



Typical Characteristics

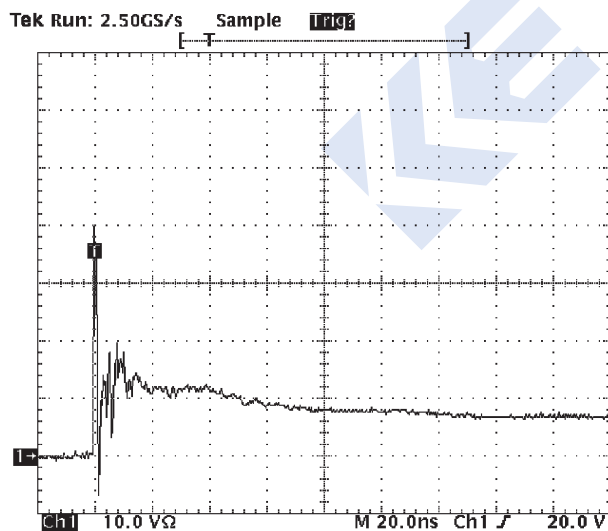


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

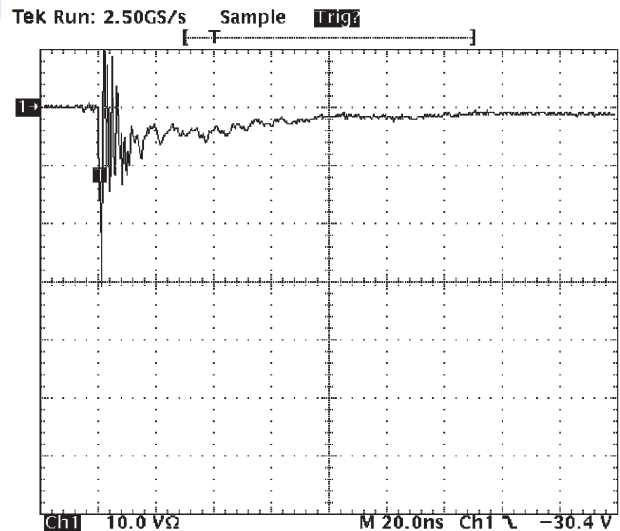


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2

TVS Diodes ESD8L5.0

■ Typical Characteristics

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

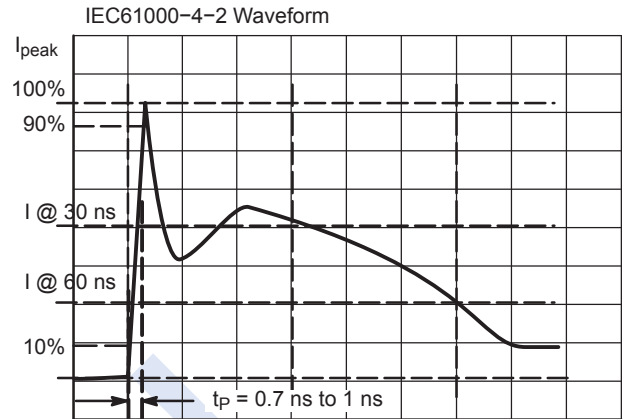


Figure 3. IEC61000 -4-2 Spec

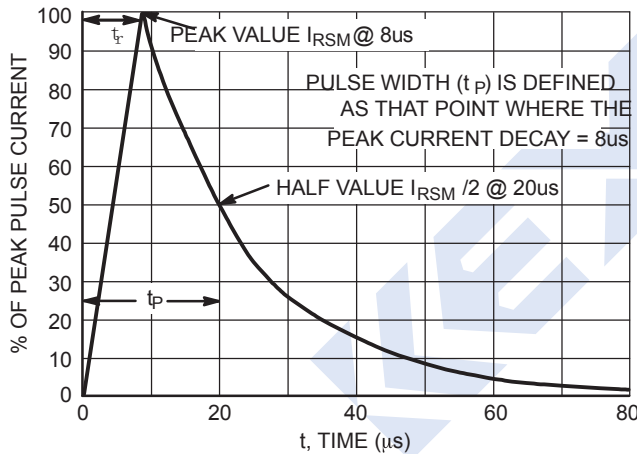


Figure 4. 8 X 20 μs Pulse Waveform