

XESD2FH5VC Transient Voltage Suppressors

Features

- Low clamping voltage
- Complies with IEC 61000-4-2 standards:
 - Air discharge: $\pm 20\text{kV}$
 - Contact discharge: $\pm 20\text{kV}$
- RoHS Compliant



SOD882

Ordering information

Device	Package	Shipping
XESD2FH5VC	SOD882	10000/Tape&Reel

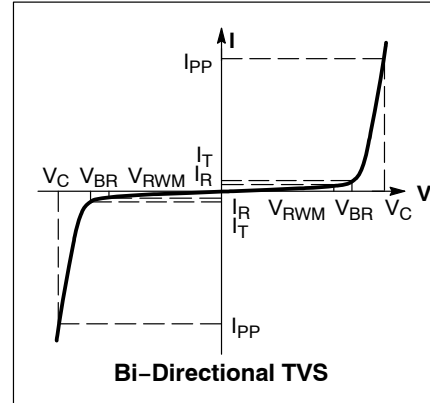
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	300	W
Peak Pulse Current (8/20 μs)	I _{PP}	20	A
Operating Temperature Range	T _J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T _{stg}	-55 to +150	$^\circ\text{C}$

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



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 _r = 8/20µs	P _{PP} (W)	V _C
		Max	Max	Min	Max		Typ	Max	Max	Max
XESD2FH5A9	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.

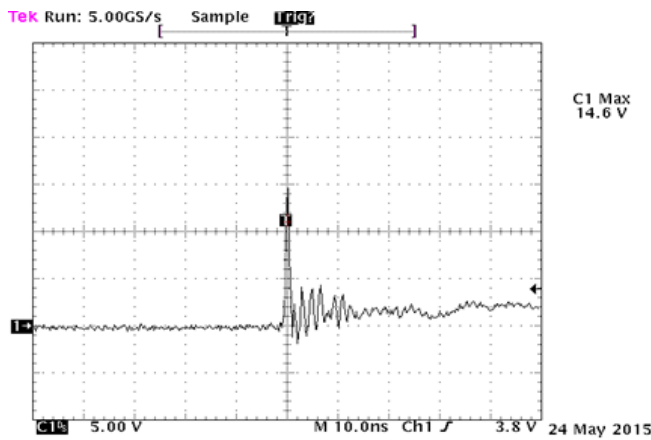


Figure 1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

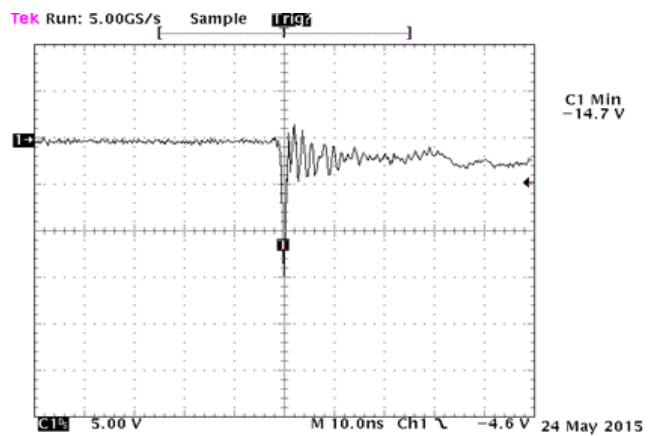


Figure 2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

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

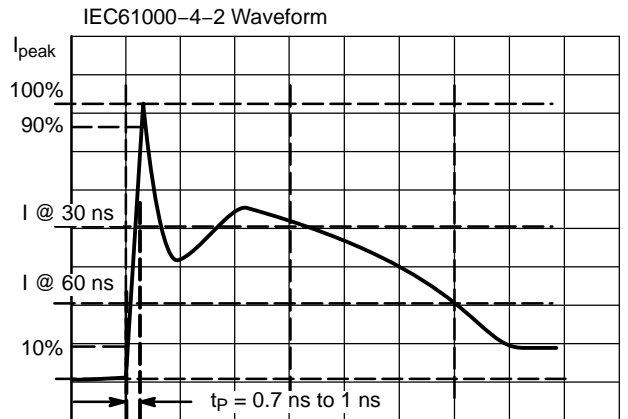


Figure 3. IEC61000-4-2 Spec

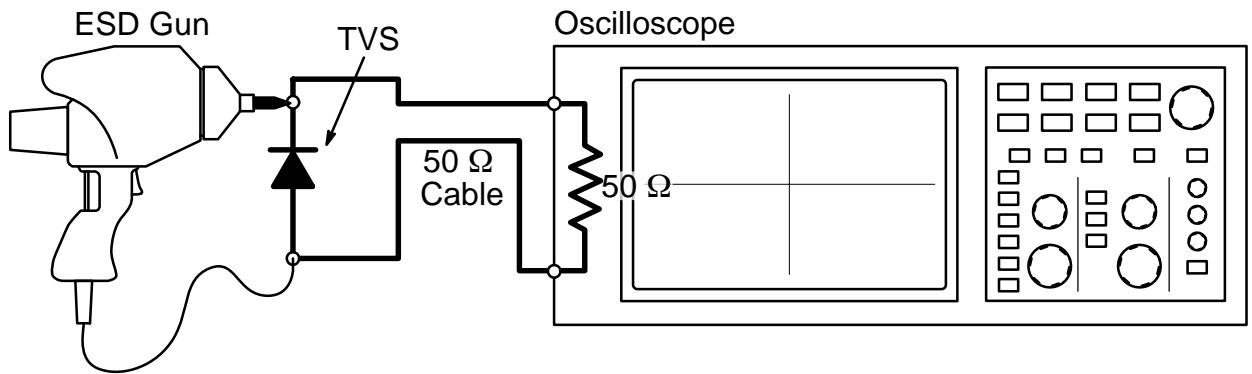


Figure 4. Diagram of ESD Test Setup

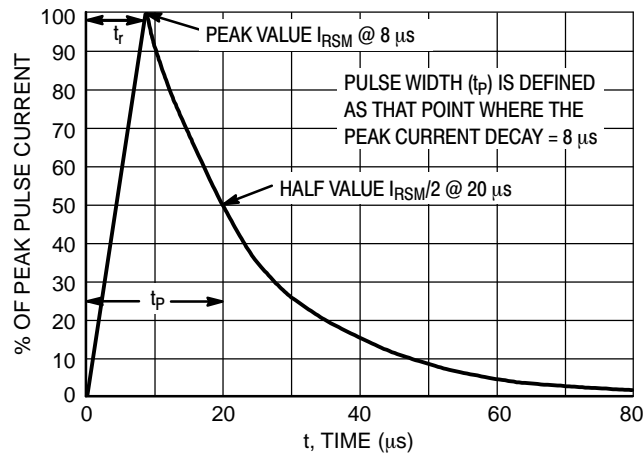
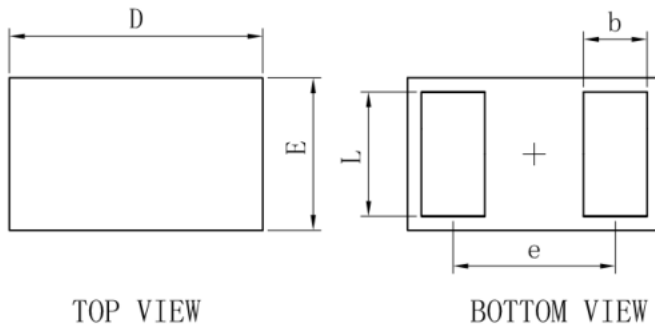


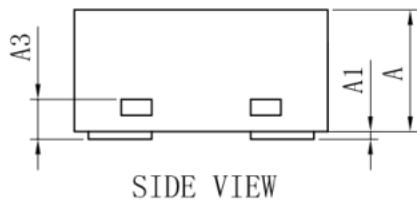
Figure 5. 8 X 20 μs Pulse Waveform

OUTLINE AND DIMENSIONS

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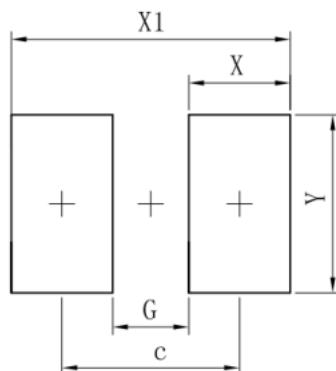


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Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			



SOLDERING FOOTPRINT

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