Elektronische Bauelemente

SNESD05C

Plastic Encapsulate ESD Protection Diodes

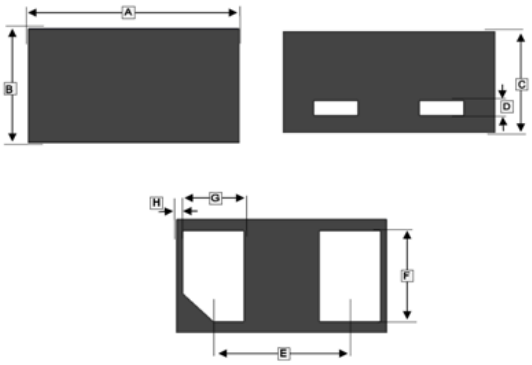
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

Designed to protect voltage sensitive electronic components from ESD and other transients.Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, Display Port TM, and MDDI interfaces. It is designed to replace multiplayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc.

DFN0201

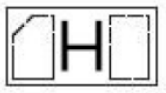


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.56	0.67	E	0.36	0.44
B	0.27	0.37	F	0.22	0.30
C	0.27	0.34	G	0.12	0.20
D	0.05 REF.		H	0.03 REF.	

FEATURES

- Bi-directional ESD Protection of One Line
- Low Capacitance: 10pF(Typ.)
- Low Reverse Stand−off Voltage: 5V
- Low Reverse Clamping Voltage
- Low Leakage Current
- Fast Response Time

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
DFN0201	10K	7 inch

MAXIMUM RATINGS (T_A=25°C)

Parameter		Symbol	Rating	Unit
Electrostatic Discharge Voltage(IEC61000−4−2)[1]	Air	V_{ESD}	±25	KV
	Contact		±25	
	Per Human Body Model		±16	KV
	Per Machine Model		400	V
Peak Pulse Power (8/20μs Waveform) [2]		P_{PP}	50	W
Lead Solder Temperature – Maximum (10 Second Duration)		T_L	260	°C
Peak Pulse Current (8/20μs Waveform) [2]		I_{PP}	5	A
Junction and Storage Temperature Range		T_J, T_{STG}	150, -55~150	°C

Notes:
1. Device stressed with ten non-repetitive ESD pulses.
2. Non-repetitive current pulse 8/20us exponential decay waveform according to IEC61000-4-5.

ELECTRICAL PARAMETER

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

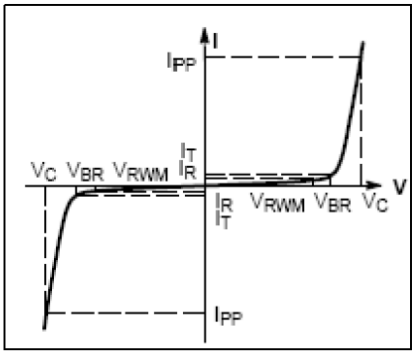


Fig 1. V-I characteristics for a bi-directional TVS

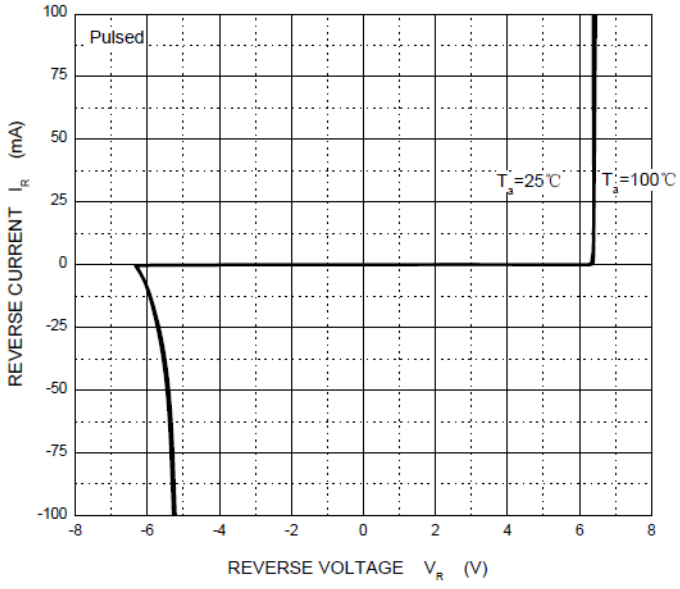
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted.)

Parameter	Symbol	Min	Typ	Max	Unit
Working Peak Reverse Voltage [1]	V_{RWM}	-	-	5.0	V
Maximum Reverse Leakage Current@ V_{RWM}=5V	I_R	-	-	0.1	μA
Breakdown Voltage@ I_T=1mA	V_{BR}	5.8	-	8	V
Clamping Voltage@ I_{PP}=5A [2]	V_C	-	-	10	V
Junction Capacitance@ V_R=0, f=1MHz	C	-	10	-	pF

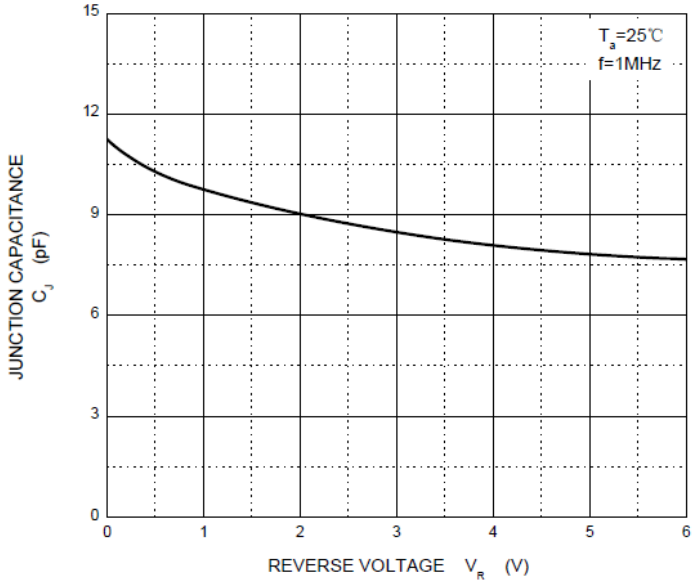
Notes:
1. Other voltages available upon request.
2. Non-repetitive current pulse 8/20us exponential decay waveform according to IEC61000-4-5.

TYPICAL CHARACTERISTICS

Reverse Characteristics



Capacitance Characteristics



V_C —— I_{PP}