Elektronische Bauelemente

SNESD05C

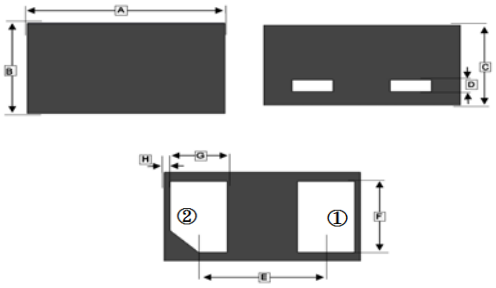
Plastic Encapsulate ESD Protection Diodes

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

DESCRIPTION

The SNESD05C is a transient voltage suppressors (TVS) Which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is designed to replace multiplayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc.

DFN0201

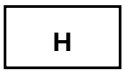


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.56	0.67	E	0.36	0.44
B	0.27	0.37	F	0.22	0.30
C	0.27	0.34	G	0.12	0.20
D	0.05 REF.		H	0.03 REF.	

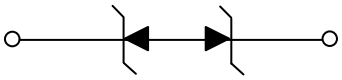
FEATURES

- Stand-off voltage: 5V
- Low leakage current
- Ultra-low clamping voltage
- IEC 61000−4−2 level 4 ESD protection

MARKING



TOP VIEW



PACKAGE INFORMATION

Package	MPQ	Leader Size
DFN0201	10K	7' inch

MAXIMUM RATINGS (T_A = 25°C)

PARAMETER		SYMBOL	VALUE	UNIT
Electrostatic Discharge Voltage(IEC61000−4−2)[1]	Air	V_{ESD}	±30	KV
	Contact		±30	
	Per Human Body Model		16	KV
	Per Machine Model		400	V
Peak Pulse Power (8/20μs Waveform) [2]		P_{PP}	62.5	W
Peak Pulse Current (8/20μs Waveform) [2]		I_{PP}	5	A
Junction and Storage Temperature Range		T_J, T_{STG}	150, -55~150	°C
Lead Solder Temperature – Maximum (10 Second Duration)		T_L	260	°C

Note:
1.Device stressed with ten non-repetitive ESD pulses.
2.Non-repetitive current pulse 8/20us exponential decay waveform according to IEC61000-4-5.
Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended. Operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

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

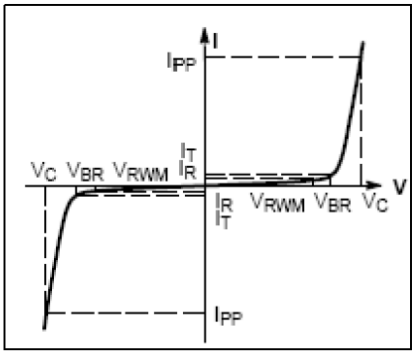


Fig 1. V-I characteristics for a bi-directional TVS

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	-	-	12.5	V
Max. Capacitance @ V_R =0, f =1MHz	C	-	10	-	pF

Note:

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