HESDNC8VB1CL-A
ESD PROTECTION DIODE

Discription

The HESDNC8VB1CL-A is designed to protect voltage sensitive components from damage or latch-up due to ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD for board level. Because of its small size and bi-directional design, it is ideal for use in cellular phones, MP3 players, and portable applications that require audio line protection.

SOD-523

Features

★ IEC 61000-4-2 Level 4 ESD Protection
- ±25kV Contact Discharge
- ±25kV Air Discharge

★ 150W Peak pulse Power (8/20us)
★ Low clamping voltage
★ Working voltage: 8V
★ Low leakage current
★ RoHS compliant
★ Protecting one bi-directional lines
★ Junction capacitance: 10pF Typ.

Circuit Diagram

Applications

★ Cellular handsets and accessories
★ Portable digital assistants
★ Notebooks & handhelds
★ Digital cameras
★ MP3 players
★ Peripherals

Ordering Information

Product ID	Pack	Qty(PCS)
HESDNC8VB1CL-A	SOD-523	3000

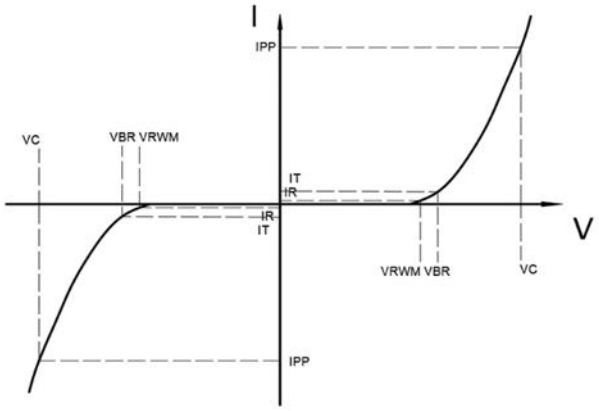
Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20 μ s)	150	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_{op}	Operating Temperature Range	-40 to +125	°C
T_j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±25 ±25	KV
I_{PP}	Peak pulse current (tp=8/20us)@25°C	9	A

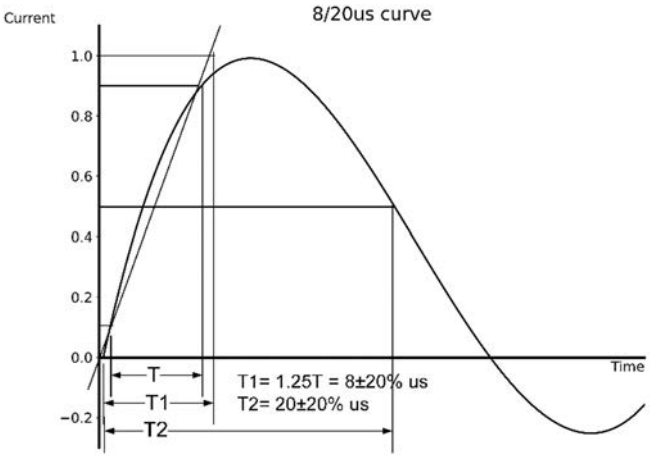
Electrical Characteristics

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				8.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	9.0			V
I_R	Reverse Leakage Current	V_{RWM} = 5.0V			1.0	uA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs		11.0		V
		I_{PP} = 9A, t_p = 8/20μs		17.0		V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		10.0		pF

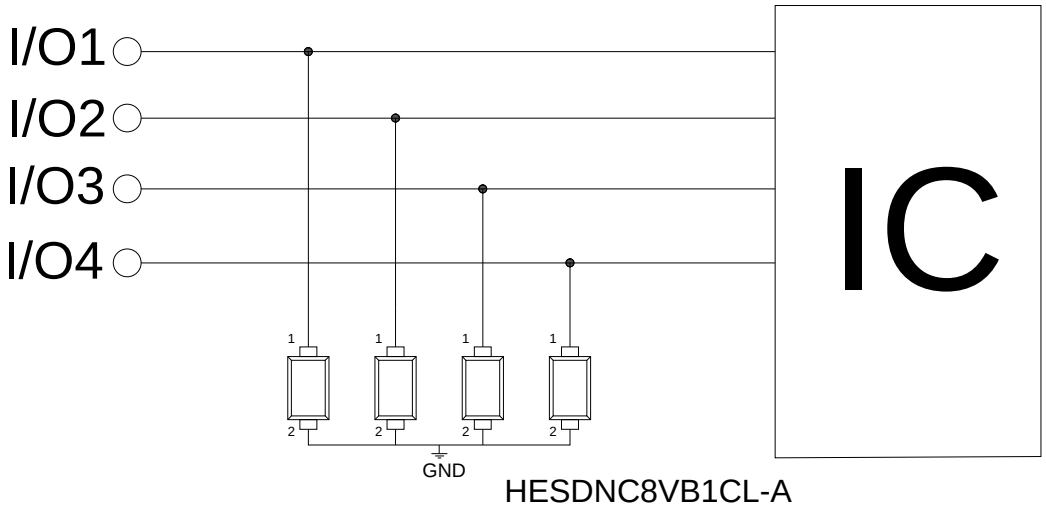
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



Typical Characteristics



Typical Application



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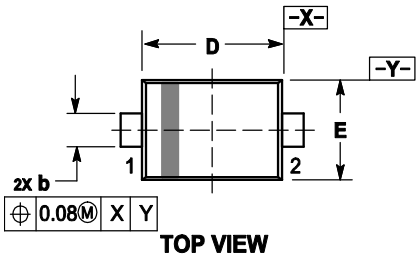
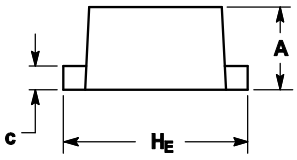
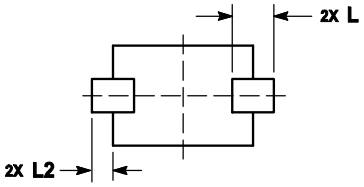
Outline And Dimensions



TOP VIEW



SIDE VIEW



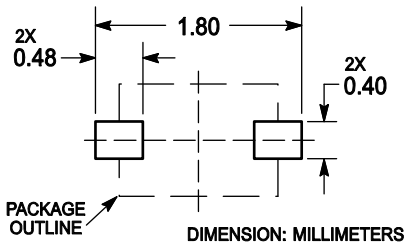
BOTTOM VIEW

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.60	0.70	0.020	0.024	0.028
b	0.25	0.30	0.35	0.010	0.012	0.014
c	0.07	0.14	0.20	0.003	0.006	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
H_E	1.50	1.60	1.70	0.059	0.063	0.067
L	0.30 REF			0.012 REF		
L_2	0.15	0.20	0.25	0.006	0.008	0.010

Soledering Footprint



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