HxxxD3xVxB Series

Bi-directional ESD Protection Diodes

Peak Pulse Power - 350 Watts

Description

The HxxxD3xVxB series has been specifically designed to protect sensitive components which are connected to power data and transmission lines from overvoltage caused by ESD (electrostatic discharge)

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppk = 350W (tp=8/20 us)
- Reverse Working Voltage : 3.3V thru 36V
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±27kV(Contact) / ±30kV(Air)

Applications

- Computers and peripherals
- Communication system
- Notebooks, desktops & servers
- Portable electronics
- Cellular handsets and accessories

Mechanical Data

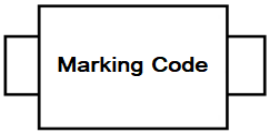
- Case: SOD323 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Terminals:Matte tin plated,solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo HY or HY are made by HY Electronic (Cayman) Limited.

Ordering Information

- Package :SOD323
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel
- Quantity One Carton :180,000/Tape & Reel

Marking Information



"2A" =3.3V Product Type Marking Code

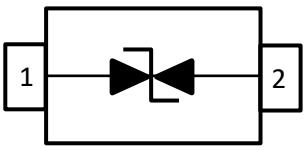
"2B" =5V Product Type Marking Code

See marking code of Page 2

Package Outline

SOD323 Top View

Device Schematic & PIN Configuration



Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Absolute Ratings

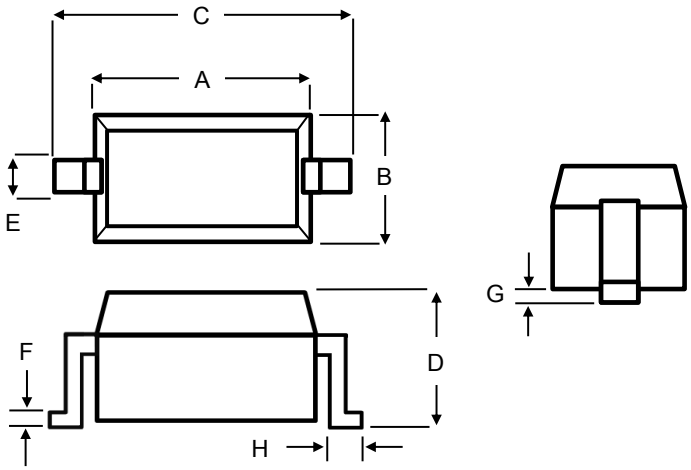
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	350	W
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C
Soldering Temperature, t max =10s	T_L	260	° C

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Electrical Characteristics

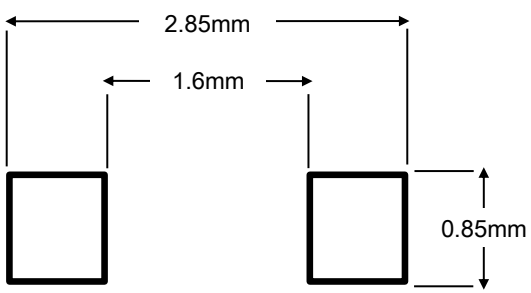
Part Number	Marking Code	Reverse Working Voltage(Max) V_{RWM}(V)	Reverse Breakdown Voltage(Min) V_B(V) @I_T=1mA	Reverse Current(Max) I_R(uA) @V_R=V_{RWM}	Reverse Clamping Voltage(Max) V_C(V) @I_{PP}=1A	Reverse Clamping Voltage(Max) V_C(V) @I_{PP}=Max.	Peak Pulse Current(Max) I_{PP}(A)	Junction Capacitance(Typ) Cj(pF) @V_R=0V,F=1MHz
H20D33V3B	2A	3.3	4	40	7.5	16	20	450
H17D35V0B	2B	5	6	10	9.8	18	17	200
H15D38V0B	2C	8	8.5	2	13.4	24	15	120
H11D312VB	2D	12	13.3	1	19	32	11	75
H10D315VB	2J	15	16.7	1	24	38	10	68
H09D318VB	2K	18	20	1	29	45	9	57
H08D320VB	2L	20	22.3	1	35	50	8	52
H07D324VB	2H	24	26.7	1	43	52	7	50
H4A5D336VB	2N	36	40	1	60	75	4.5	35

Package Outline Dimensions



SOD323 Package		
Dim	Min	Max
A	1.6	1.8
B	1.2	1.4
C	2.5	2.7
D	-	1.0
E	0.25	0.35
F	0.08	0.15
G	-	0.1
H	0.25	0.4
All Dimensions in mm		

Suggested Soldering Pad Layout



Rating and Characteristic Curves

FIG.1 - 8/20us Pulse Waveform According to IEC 61000-4-5

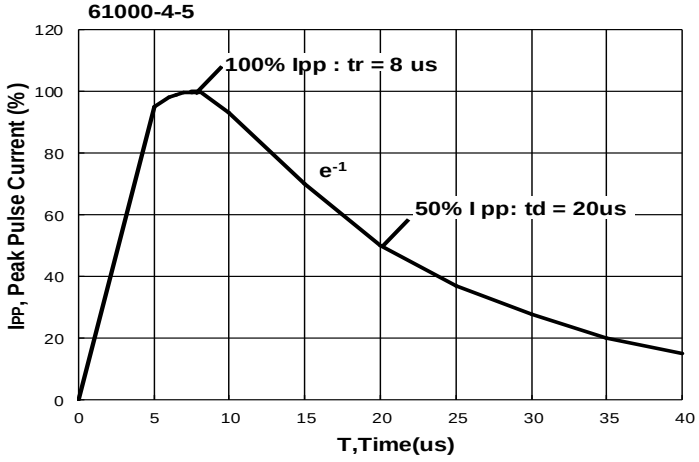


FIG.2 - Power Dissipation Versus Pulse Time

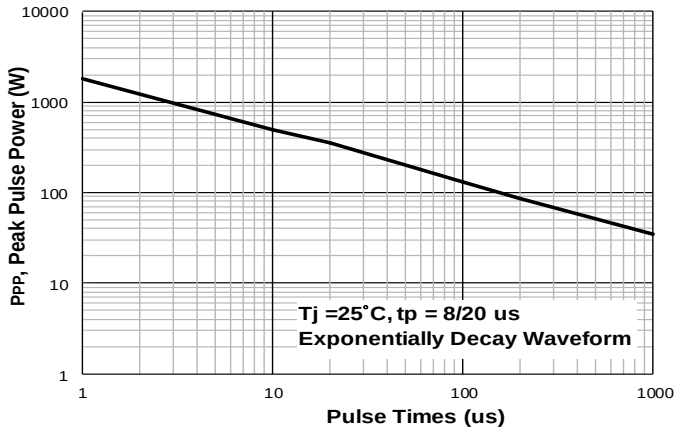


FIG.3 - Peak Pulse Power Versus Tj

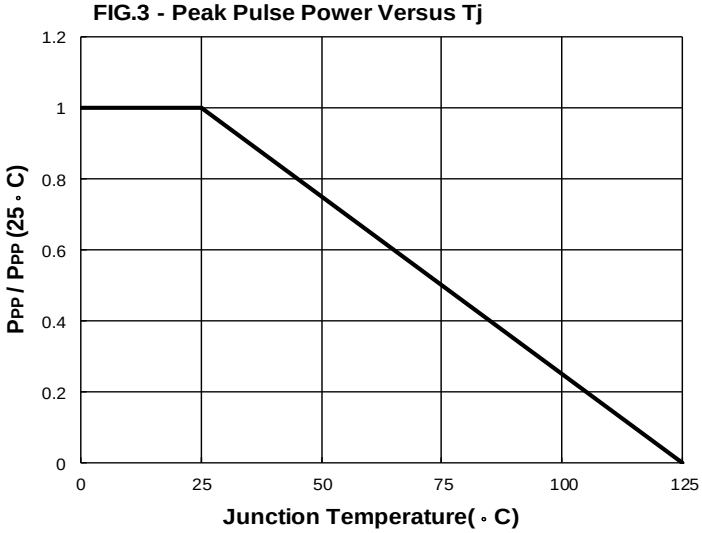
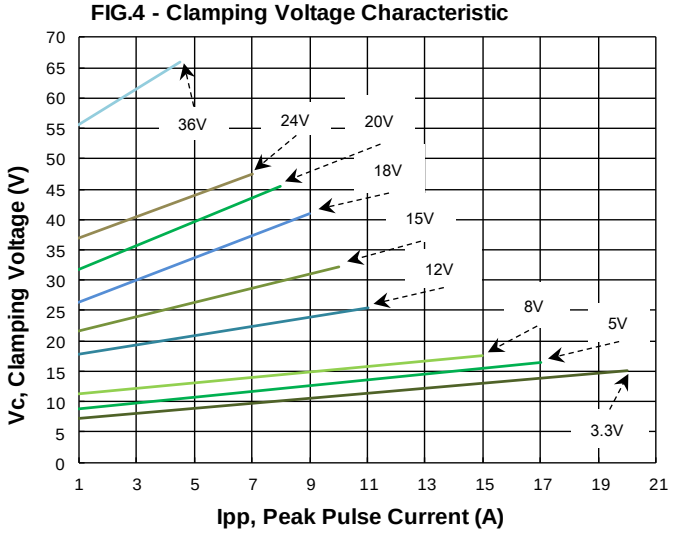


FIG.4 - Clamping Voltage Characteristic



The curve above is for reference only.

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