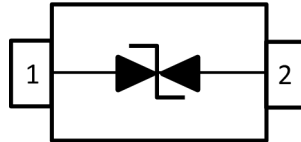


RoHS
Compliant



Device Schematic & PIN Configuration



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)

Applications

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

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power : $P_{pp} = 350W$ ($t_p=8/20$ us)
- Reverse Working Voltage : 3.3V thru 36V
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) : $\pm 27kV$ (Contact) / $\pm 30kV$ (Air)

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

Maximum Ratings (@ $T_A = +25^\circ C$, 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	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150	
Soldering Temperature, $t_{max} = 10s$	T_L	260	

Electrical Characteristics

Part Number	Marking Code	Reverse Working Voltage (Max) VRWM(V)	Reverse Breakdown Voltage(Min) VB(V) @IT=1mA	Reverse Current (Max) IR(μA) @VR=VRWM	Reverse Clamping Voltage(Max) VC(V) @IPP=1A	Reverse Clamping Voltage(Max) VC(V) @JPP=Max.	Peak Pulse Current (Max) IPP(A)	Junction Capacitance (Typ) Cj(pF) @VR=0V, F=1MHz
H20D33V3B	2A	3.3	4	40	7.5	16	20	450
H17D35V0B	2B	5	6	10	9.8	18	17	200
H07D324VB	2H	24	26.7	1	43	52	7	50
H4A5D336VB	2N	36	40	1	60	75	4.5	35

Rating and Characteristic Curves

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

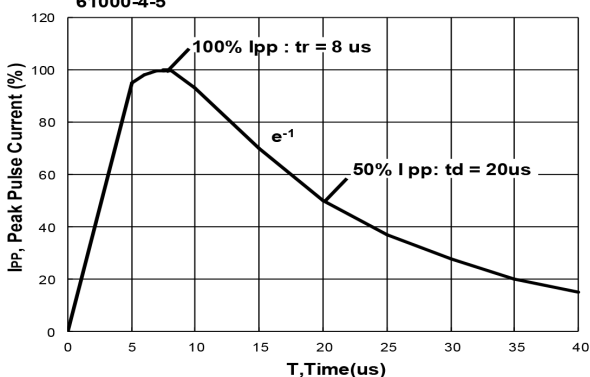


FIG.2 - Power Dissipation Versus Pulse Time

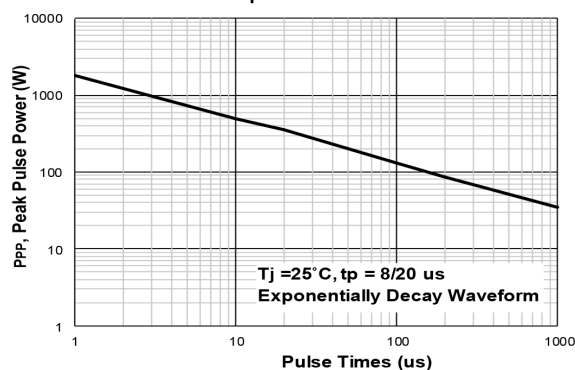


FIG.3 - Peak Pulse Power Versus Tj

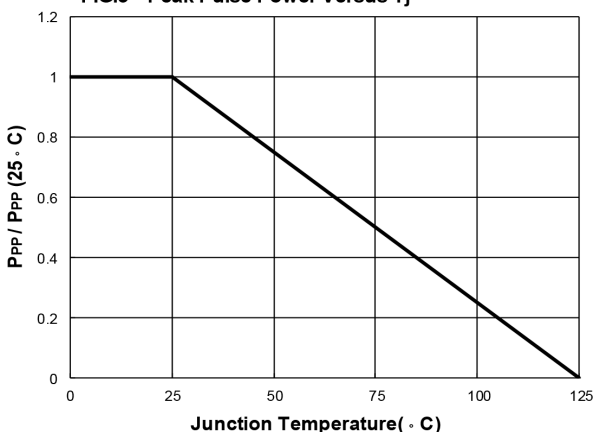
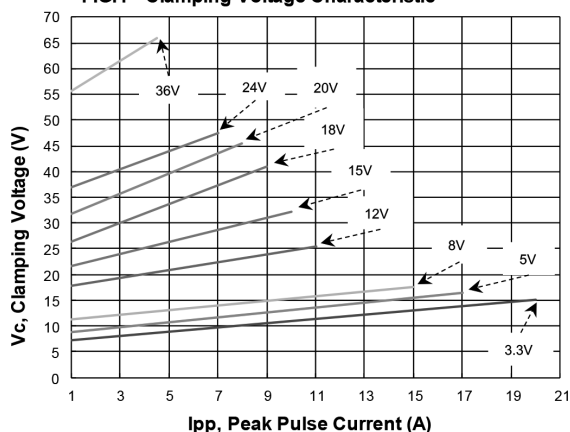
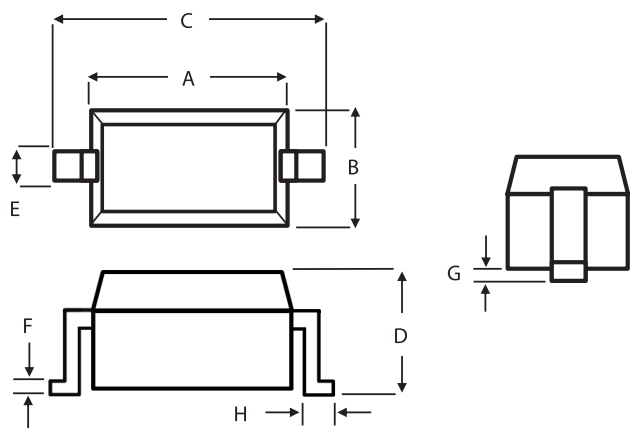


FIG.4 - Clamping Voltage Characteristic

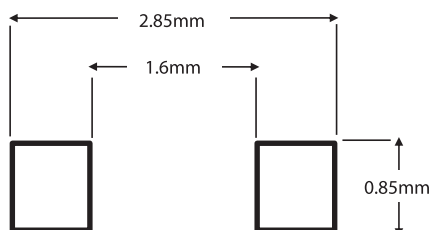


Package Outline Dimensions



SOD323 Package		
Dim	Min	Max
A	1.6	1.8
B	1.2	1.4
C	2.5	2.7
D	--	1
E	0.25	0.35
F	0.08	0.15
G	--	0.1
H	0.25	0.4

Suggested Soldering Pad Layout



Part Number Table

Description	Part Number
ESD Protection Diode, Bi-Directional, 20A, 16V, SOD-323	H20D33V3B
ESD Protection Diode, Bi-Directional, 17A, 18V, SOD-323	H17D35V0B
ESD Protection Diode, Bi-Directional, 7A, 52V, SOD-323	H07D324VB
ESD Protection Diode, Bi-Directional, 4.5A, 75V, SOD-323	H4A5D336VB

Dimensions : Millimetres

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