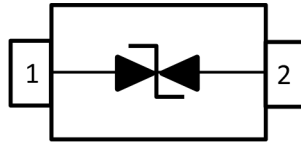


RoHS
Compliant



Device Schematic & PIN Configuration



Description

The H08D35V0B is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability and low leakage. This device has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge).

Applications

- Computers and peripherals
- Communication system
- Audio and video equipment
- Portable electronics
- Cellular handsets and accessories

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power : $P_{pp} = 125W$ ($t_p=8/20$ us)
- Reverse Working Voltage : 5V
- 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}	125	W
Peak Pulse Current (8/20 us)	I_{PP}	8	A
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	
Soldering Temperature, $t_{max} = 10s$	T_L	260	

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Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	--	V_{RWM}	-		5	V
Reverse Breakdown Voltage	$I_T = 1\text{mA}$	V_B	5.6		7.8	
Reverse Current	$V_R = 5\text{V}$	I_R			1	μA
Reverse Clamping Voltage	$I_{PP} = 1\text{A} (8/20\mu\text{s})$	V_C	-		11	V
	$I_{PP} = 8\text{A} (8/20\mu\text{s})$				16	
Junction Capacitance	$V_R = 0\text{V}, F = 1\text{MHz}$	C_j			15	pF

Rating and Characteristic Curves

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

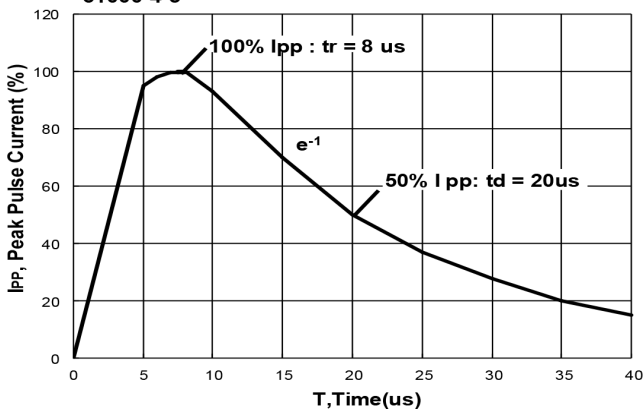


FIG.2 - Power Dissipation Versus Pulse Time

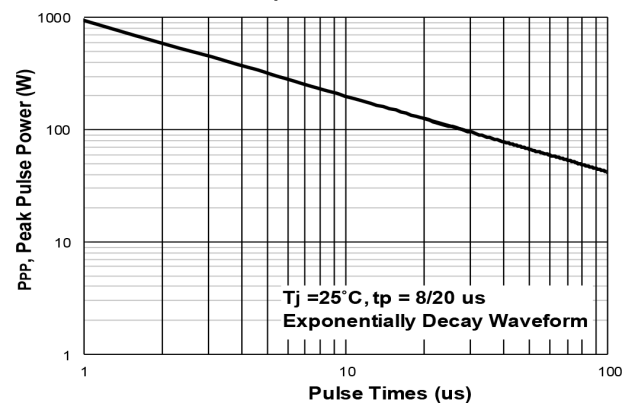


FIG.3 - Peak Pulse Power Versus T_j

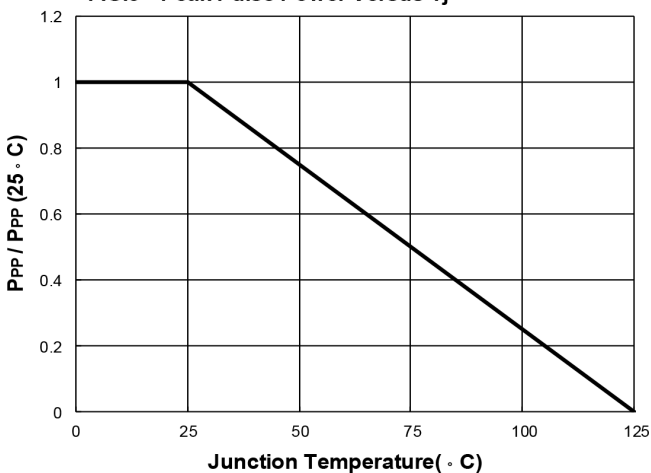
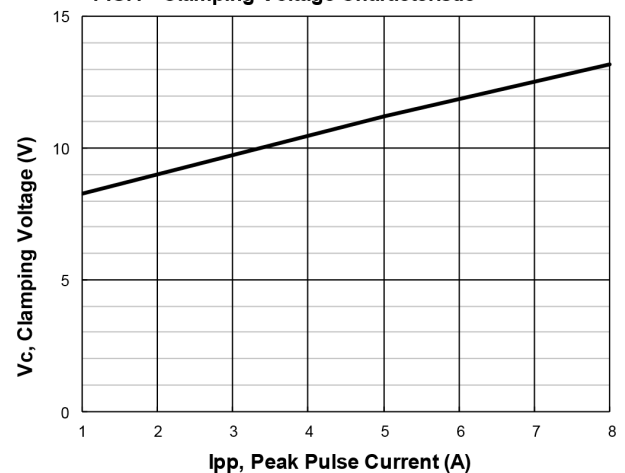
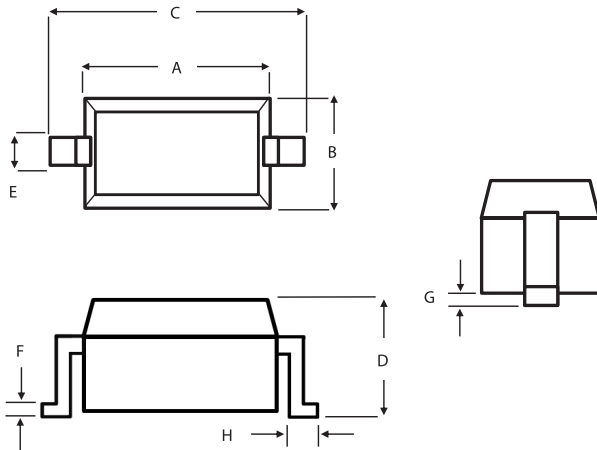


FIG.4 - Clamping Voltage Characteristic

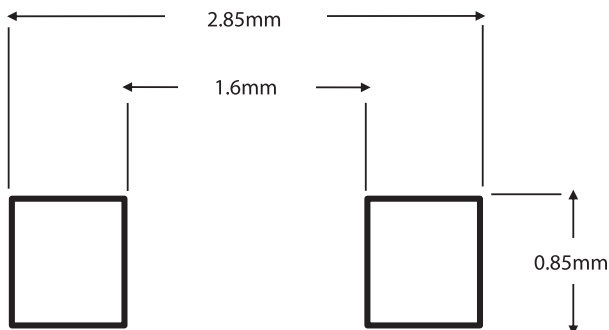


Package Outline Dimensions



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, 8A, 16V, SOD-323	H08D35V0B

Dimensions : Millimetres

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