



Bi-directional ESD Protection Diode

Peak Pulse Power - 125 Watts
Reverse Working Voltage - 5.0V

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).

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)

Applications

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

Package Outline



SOD323 Top View

Mechanical Data

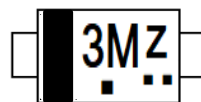
- Case: SOD323 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

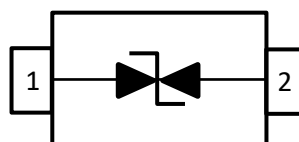
- Package : SOD323
- Reel Size : 7 (inches)
- Quantity Per Reel : 3,000/Tape & Reel
- Quantity One Box : 45,000/Tape & Reel
- Quantity One Carton : 180,000/Tape & Reel

Marking Information



Product Type Marking Code

Device Schematic & PIN Configuration

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	kV
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	$^\circ C$
Soldering Temperature, $t_{max} = 10s$	T_L	260	$^\circ C$

Electrical Characteristics

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



Rating and Characteristic Curves

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

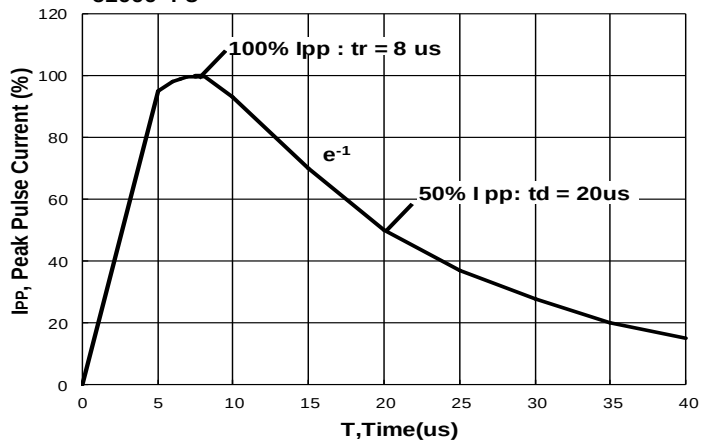


FIG.2 - Power Dissipation Versus Pulse Time

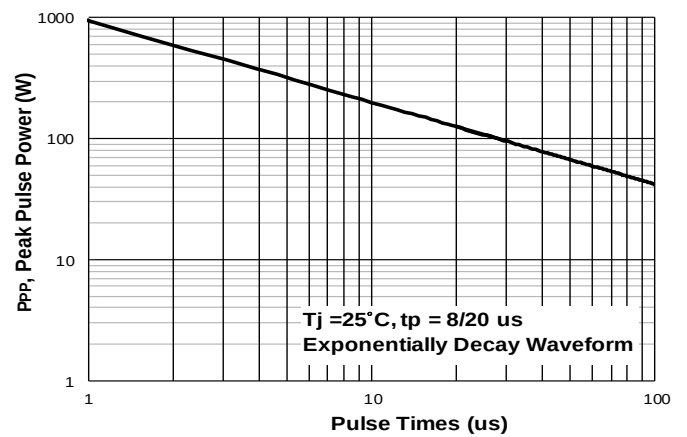


FIG.3 - Peak Pulse Power Versus Tj

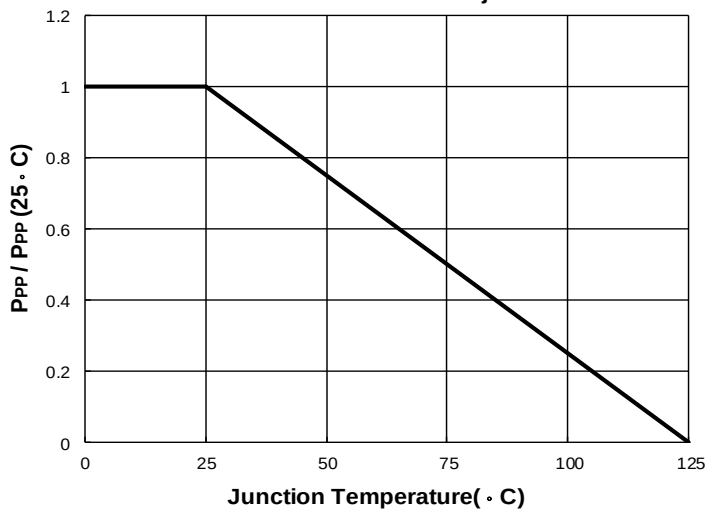
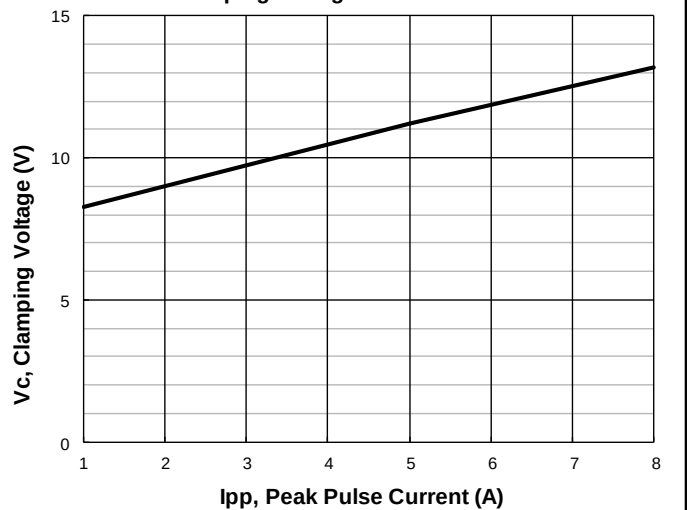
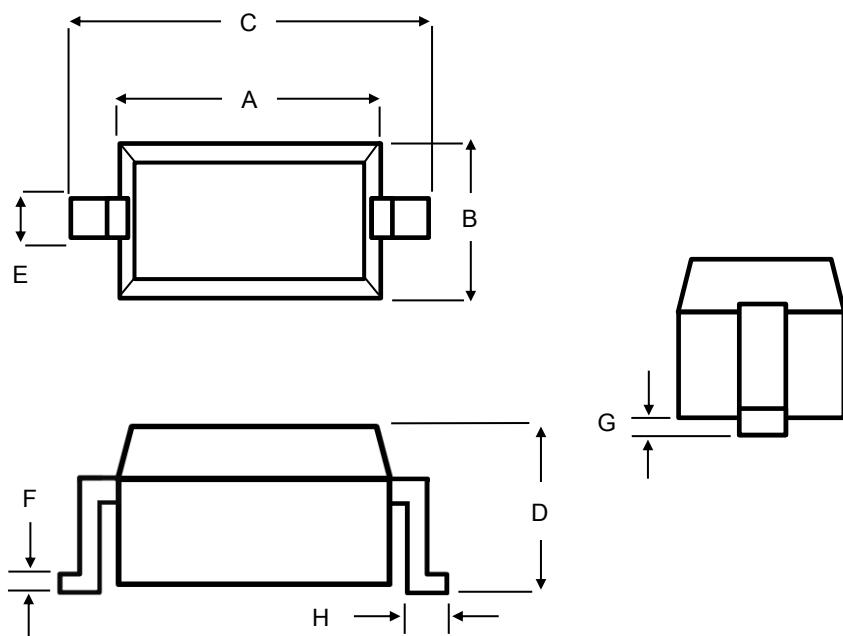


FIG.4 - Clamping Voltage Characteristic



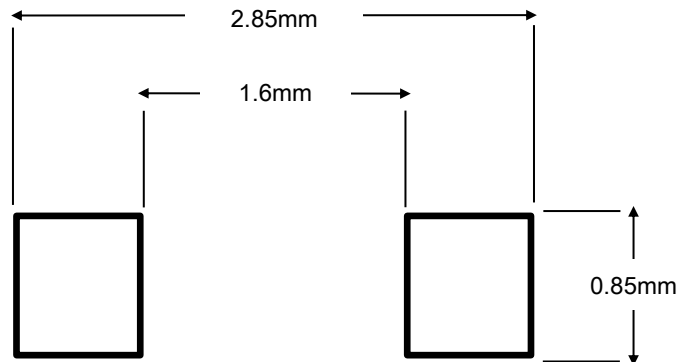


Package Outline Dimensions



SOD323 Package		
Dim	Min	Max
A	1.6	1.8
B	1.2	1.4
C	2.5	2.7
D	-	1.0
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





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