



## Bi-directional ESD Protection Diodes

### Peak Pulse Power - 350 Watts

### Description

The HxxxD3xVxBLC series are low capacitance bidirectional electro static discharge (ESD) protection diodes in small surface-mounted device (SMD) plastic packages designed to protect one data line from the damage caused by ESD.

### Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppp = 350W (tp=8/20 us)
- Reverse Working Voltage : 3.3V thru 24V
- Low Leakage Current
- Low Clamping Voltage
- Low Capacitance :0.8pF (Typ)
- IEC 61000-4-2 (ESD) :±27kV(Contact) / ±30kV(Air)

### Applications

- Ethernet - 10/100/1000 Base-T
- Handheld - Wireless Systems
- USB Interface

### Mechanical Data

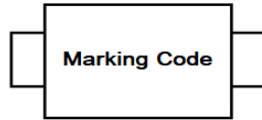
- Case: SOD323 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Component in accordance to RoHS
- Terminals:Matte tin plated,solderable per MIL-STD-750, method 2026
- Halogen Free

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



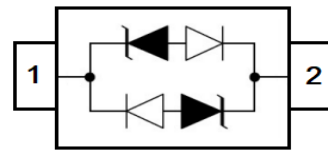
"CC" =3.3V Product Type Marking Code  
"AC" =5V Product Type Marking Code  
See marking code of Page 2

### 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)	PPP	350	W
ESD Protection- Contact (Standard IEC 61000-4-2)	VESD	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2 )		±30	
Operating Temperature Range	TJ	-55 to +125	° C
Storage Temperature Range	TSTG	-55 to +150	° C
Soldering Temperature, t max =10s	TL	260	° C

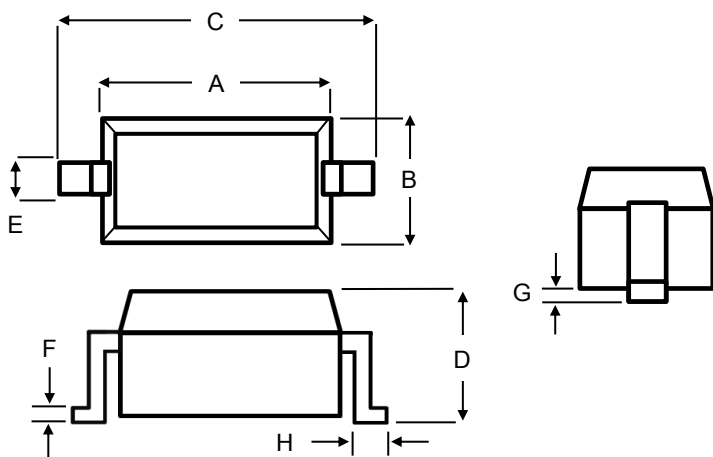


## Maximum Ratings (@TA = +25°C, unless otherwise specified.)

### Electrical Characteristics

Part Number	Marking Code	Reverse Working Voltage(Max)	Reverse Breakdown Voltage(Min)	Reverse Current(Max)	Reverse Clamping Voltage(Max)	Reverse Clamping Voltage(Max)	Peak Pulse Current(Max)	Junction Capacitance(Typ)
		$V_{RWM}(V)$	$V_B(V)$ @ $I_T=1mA$	$I_R(\mu A)$ @ $V_R=V_{RWM}$	$V_c(V)$ @ $I_{PP}=1A$	$V_c(V)$ @ $I_{PP}=Max.$	$I_{PP}(A)$	$C_j(pF)$ @ $V_R=0V, F=1MHz$
H20D33V3BLC	CC	3.3	4	5	7	20	20	0.8
H18D35V0BLC	AC	5	6	1	9.8	20	18	0.8
H18D38V0BLC	BC	8	8.5	1	13.4	24	18	0.8
H12D312VBLC	DC	12	13.3	1	19	28.6	12	0.8
H10D315VBLC	EC	15	16.7	1	24	31.8	10	0.8
H06D324VBLC	HC	24	26.7	1	43	56	6	0.8

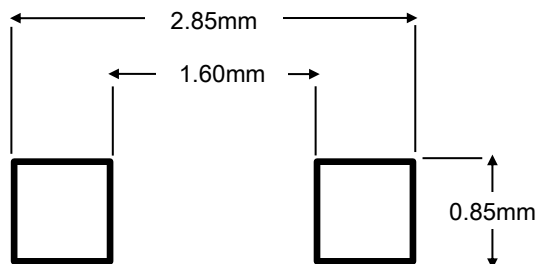
## Package Outline Dimensions



SOD323 Package		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	2.50	2.70
D	-	1.00
E	0.25	0.35
F	0.08	0.15
G	-	0.10
H	0.25	0.40

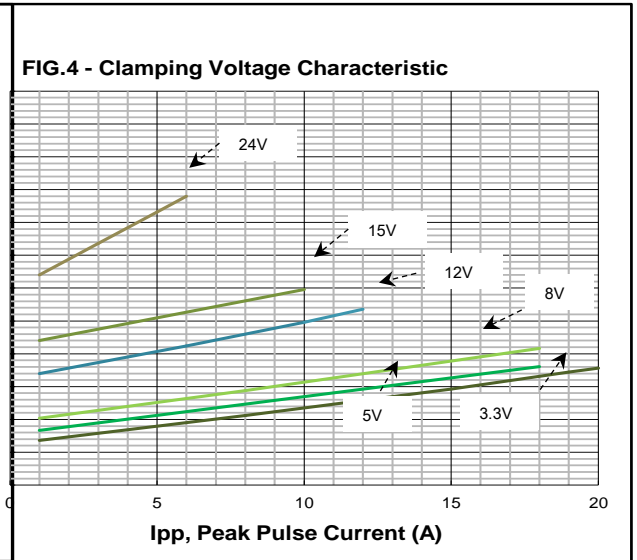
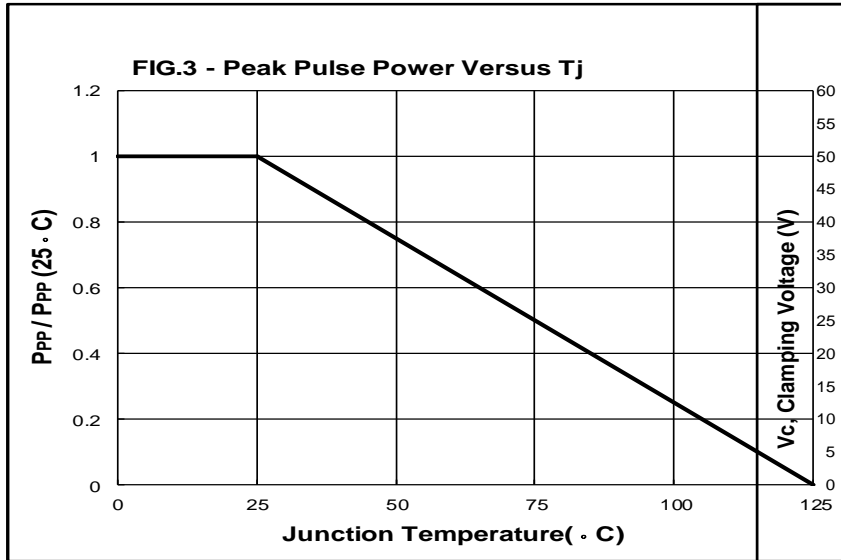
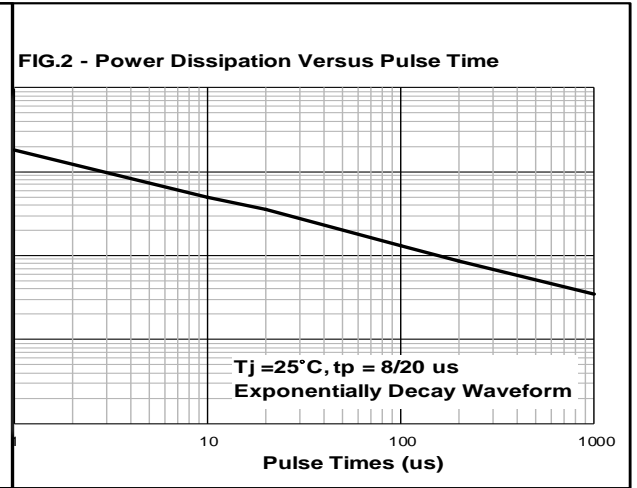
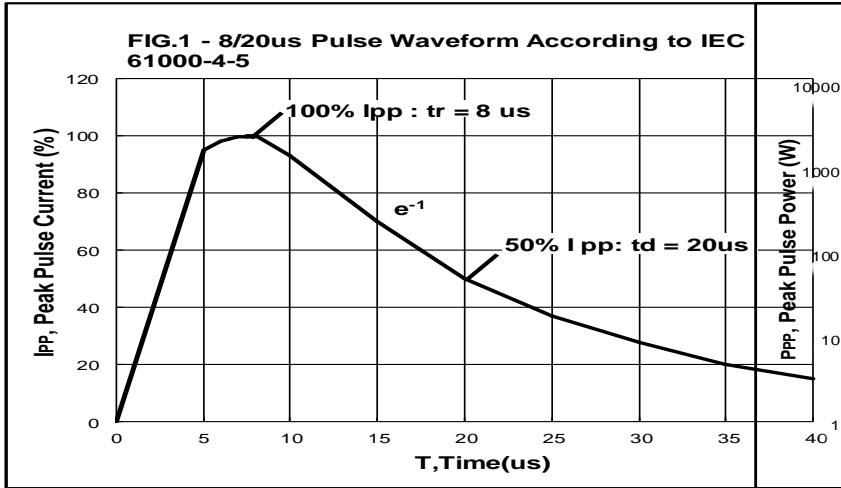
All Dimensions in mm

## Suggested Soldering Pad Layout





## Rating and Characteristic Curves





## Disclaimer

All specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

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