



Bi-directional ESD Protection Diode

Peak Pulse Power - 100 Watts
Reverse Working Voltage - 3.3V

Description

The H04D33V3BU is offer superior electrical characteristics such as lower clamping voltage and ultra low-capacitance. They are designed to protect sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD).

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :P_{pp} = 100W (tp=8/20 us)
- Low capacitance: 0.25pF (Typical)
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±27kV(Contact) / ±30kV(Air)

Applications

- Notebooks & handhelds
- Portable instrumentation. & peripherals
- Digital cameras & MP3 players
- Cellular handsets and accessories

Package Outline



SOD323 Top View

Mechanical Data

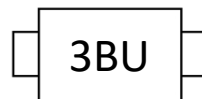
- Case: SOD323 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

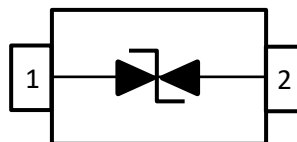
- Package :SOD323
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel
- Quantity One Carton :180,000/Tape & Reel

Marking Information



"3BU" = Product Type Marking Code

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}	100	W
Peak Pulse Current (8/20 us)	I _{PP}	4	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	° C
Soldering Temperature, t max =10s	T _L	260	° C

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	---	V _{RWM}	-	-	3.3	V
Reverse Breakdown Voltage	I _T = 1mA	V _B	4.2	-	-	V
Reverse Current	V _R = 3.3V	I _R	-	-	0.1	uA
Reverse Clamping Voltage	I _{PP} = 1A (8/20μs)	V _C	-	-	12	V
	I _{PP} = 4A (8/20μs)		-	-	25	
Junction Capacitance	V _R = 0V, F = 1MHz	C _j	-	0.25	0.4	p F



Rating and Characteristic Curves

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

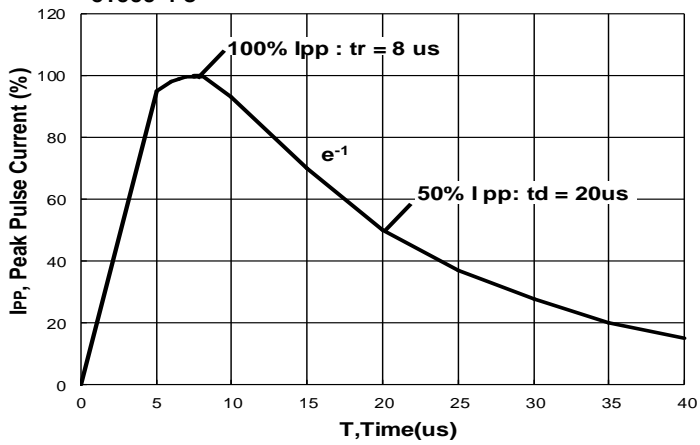


FIG.2 - Power Dissipation Versus Pulse Time

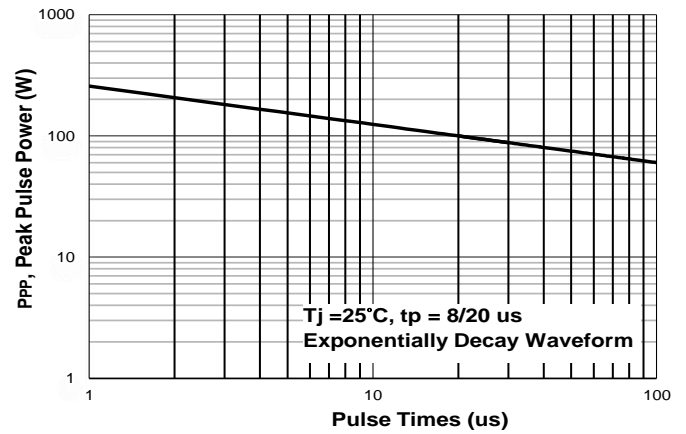


FIG.3 - Peak Pulse Power Versus T_j

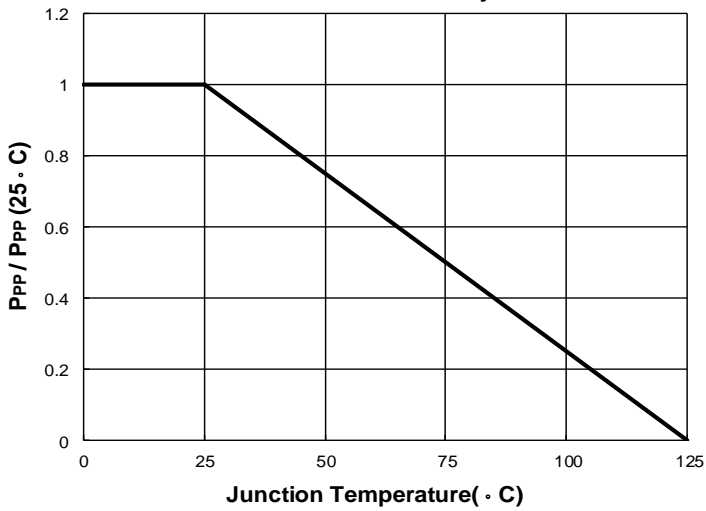
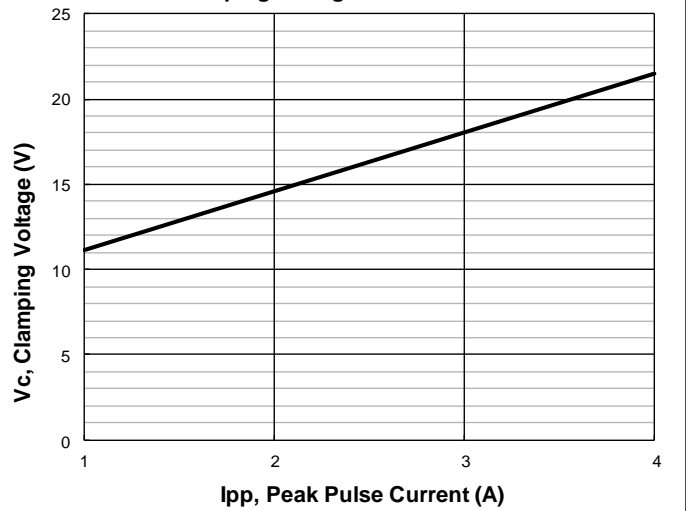
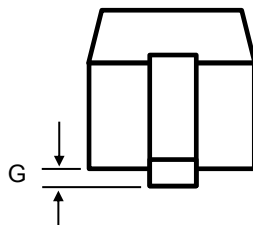
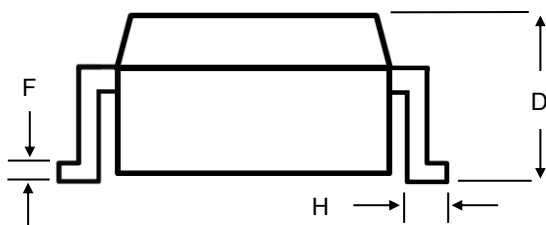
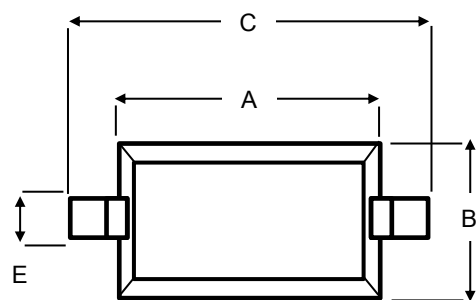


FIG.4 - Clamping Voltage Characteristic



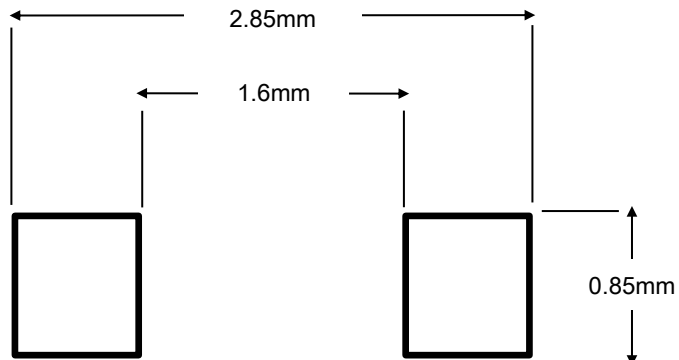


Package Outline Dimensions



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