

Uni-directional ESD Protection Diodes

Peak Pulse Power - 100 Watts

Description

The HxxxD5xVxU 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).

Features

- 1 Channel of ESD Protection (Uni-directional)
- Peak Pulse Power :Ppp = 100W (tp=8/20 us)
- Reverse Working Voltage : 3.3V thru 15V
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±20kV(Contact) / ±30kV(Air)

Applications

- Notebooks / Desktops / Servers and peripherals
- Audio and video equipment
- Communication system
- CAN bus protection
- Data lines

Mechanical Data

- Case: SOD523 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 :SOD523
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel

Marking Information



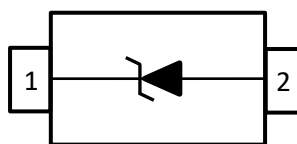
"ZD∞" =2.5V Product Type Marking Code
 "ZE∞" =3.3V Product Type Marking Code
 See marking code of Page 2

Package Outline



SOD523 Top View

Device Schematic & PIN Configuration



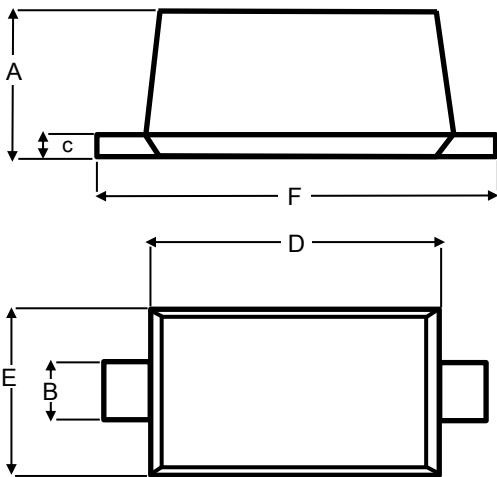
Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Absolute Ratings

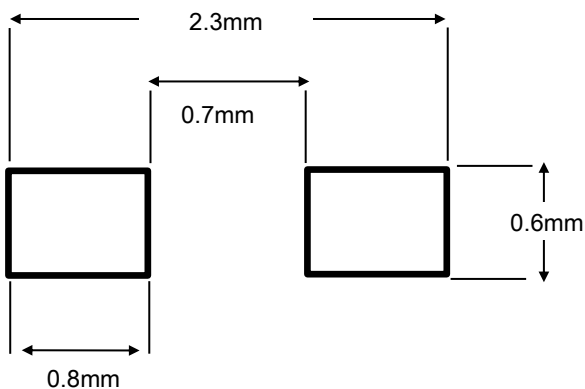
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P _{PP}	100	W
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±20	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T _J	-55 to +125	° C
Storage Temperature Range	T _{STG}	-55 to +150	° C
Soldering Temperature, t max =10s	T _L	260	° C

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

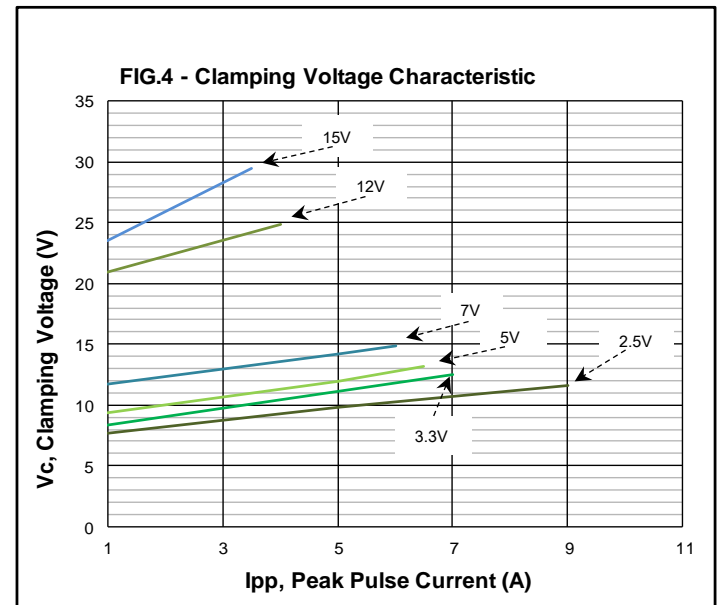
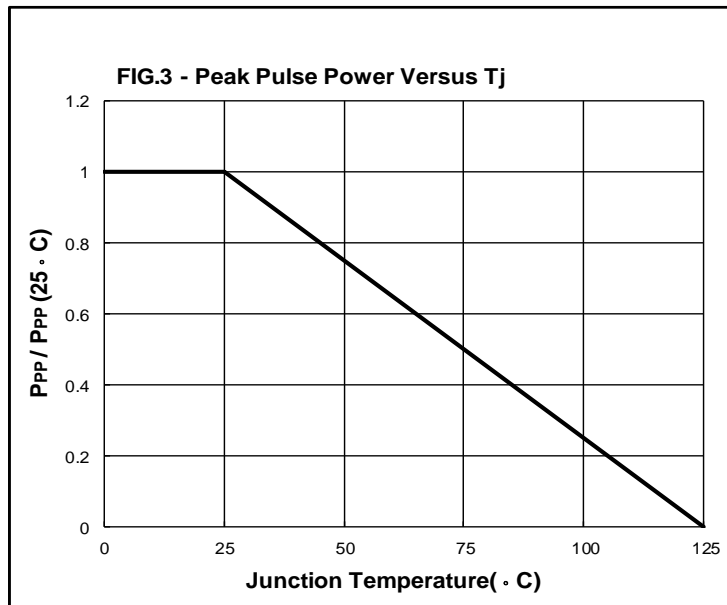
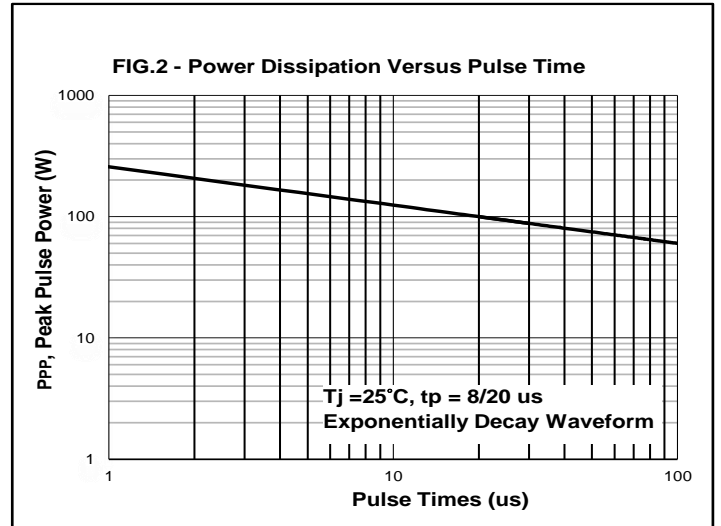
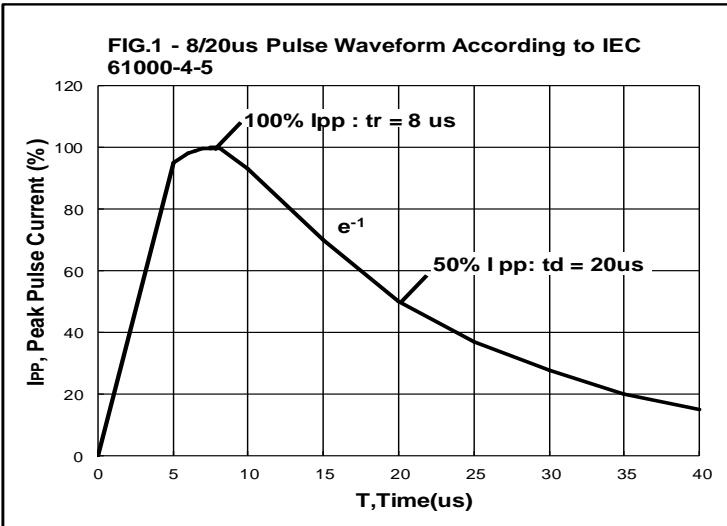
Part Number	Marking Code	Reverse Working Voltage(Max)	Reverse Breakdown Voltage(Min)	Reverse Current(Max)	Reverse Clamping Voltage(Max)		Reverse Clamping Voltage(Max)	Peak Pulse Current(Max)	Junction Capacitance(Typ)
		V _{RWM} (V)	V _B (V) @I _T =1mA	I _R (μ A) @V _R =V _{RWM}	V _c (V) @I _{PP}	V _c (V) @I _{PP} =Max.	I _{PP} (A)	C _j (pF) @V _R =0V, F=1MHz	
H09D52V5U	ZD ∞	2.5	4	6	10	5	12	9	145
H07D53V3U	ZE ∞	3.3	5	1	11	5	14	7	105
H6A5D55V0U	ZF ∞	5	6.2	1	12.5	5	15	6.5	80
H06D57V0U	ZH ∞	7	7.5	1	14	5	16.5	6	65
H04D512VU	ZM ∞	12	14.1	1	21	1	26	4	45
H3A5D515VU	ZN ∞	15	16	1	24.5	1	31	3.5	28

Package Outline Dimensions

SOD523 Package		
Dim	Min	Max
A	0.5	0.7
B	0.25	0.35
c	-	0.2
D	1.1	1.3
E	0.7	0.9
F	1.5	1.7
All Dimensions in mm		

Suggested Soldering Pad Layout

Rating and Characteristic Curves





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