

**Bi-directional ESD Protection Diode****Peak Pulse Power - 400 Watts**
Reverse Working Voltage - 5.0V**Description**

The H20D55V0B is designed to protect sensitive electronics from damage or latch up due to ESD, lightning, and other voltage induced transient events. The device will protect one line operating at 5.0 volts.

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppk = 400W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Low Clamping Voltage
- Junction Capacitance :30pF (Typ)
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)

Applications

- Computers and peripherals
- Communication system
- Audio & video equipment
- Portable Instrumentation
- Networking and Telecom

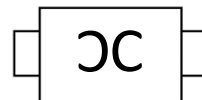
Mechanical Data

- Case: SOD523 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: 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

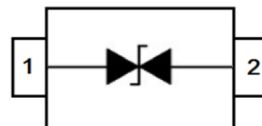
- Package :SOD523
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel
- Quantity One Carton :180,000/Tape & Reel

Marking Information

"CC" = Product Type Marking Code

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}	400	W
Peak Pulse Current (8/20 us)	I _{PP}	20	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±30	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}	-	-	5	V
Reverse Breakdown Voltage	I _T = 1mA	V _B	5.8	-	7.8	V
Reverse Current	V _R = 5V	I _R	-	-	1	uA
Reverse Clamping Voltage	I _{PP} = 1A (8/20μs)	V _C	-	-	9.8	V
	I _{PP} = 20A (8/20μs)		-	15	20	
Junction Capacitance	V _R = 0V, F = 1MHz	C _j	-	30	40	p F



Rating and Characteristic Curves

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

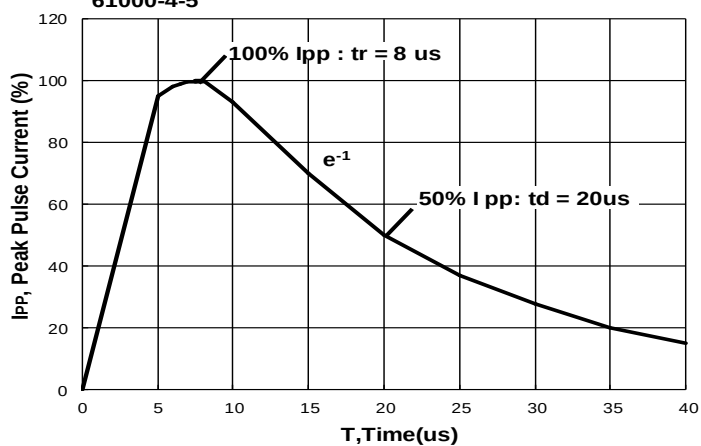


FIG.2 - Power Dissipation Versus Pulse Time

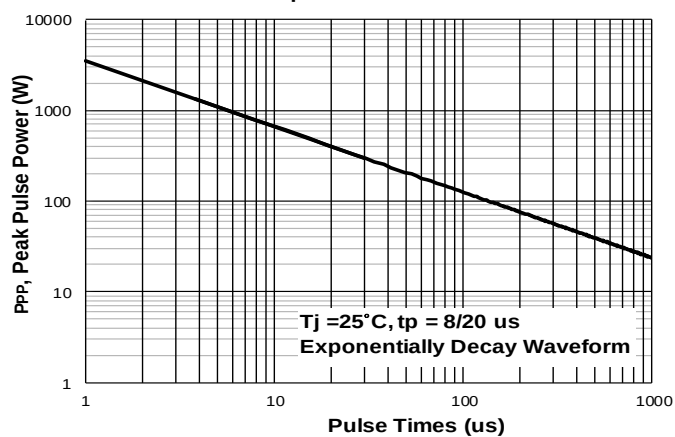


FIG.3 - Peak Pulse Power Versus T_j

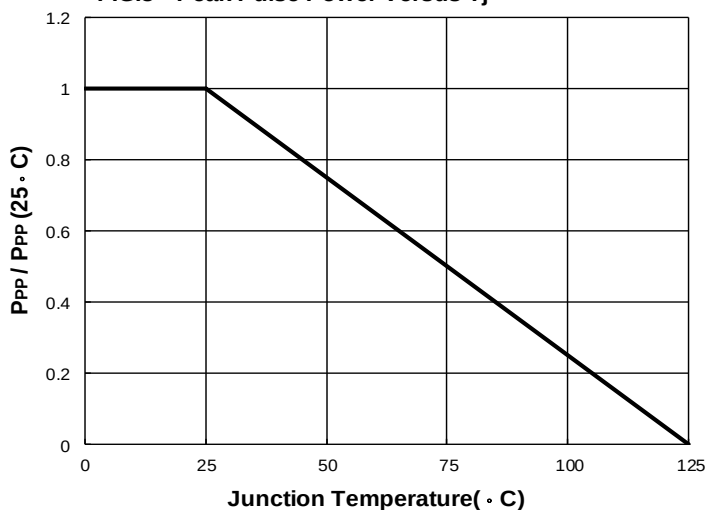
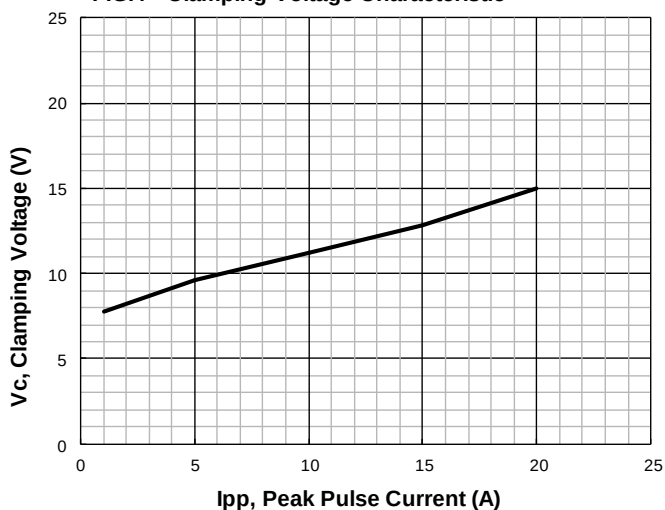
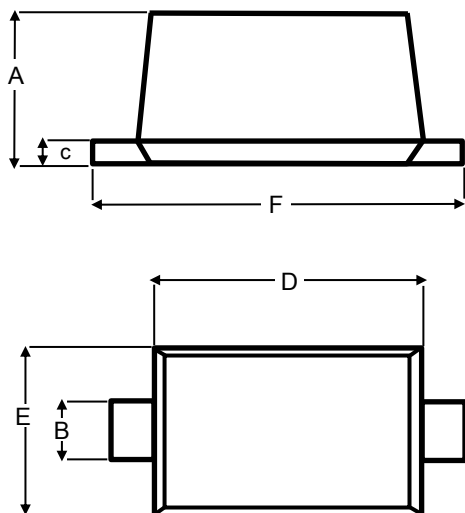


FIG.4 - Clamping Voltage Characteristic



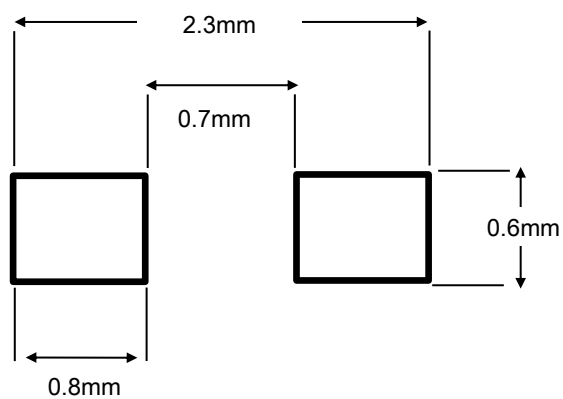


Package Outline Dimensions



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





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