H08D55V0B

Bi-directional ESD Protection Diode

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

Description

The H08D55V0B is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time.

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppp = 125W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Low Clamping Voltage
- Junction Capacitance : 15pF (Max)
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)

Applications

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

Mechanical Data

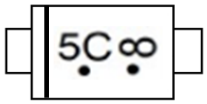
- Case: SOD523 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo HY or hy 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

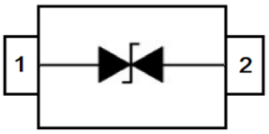


Product Type Marking Code

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}	125	W
Peak Pulse Current (8/20 us)	I_{PP}	8	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	5.6	-	9	V
Reverse Current	V_R = 5V	I_R	-	-	1	uA
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs)	V_C	-	-	11.6	V
	I_{PP} = 8A (8/20μs)		-	-	16	
Junction Capacitance	V_R = 0V, F = 1MHz	Cj	-	10	15	p F

Rating and Characteristic Curves

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

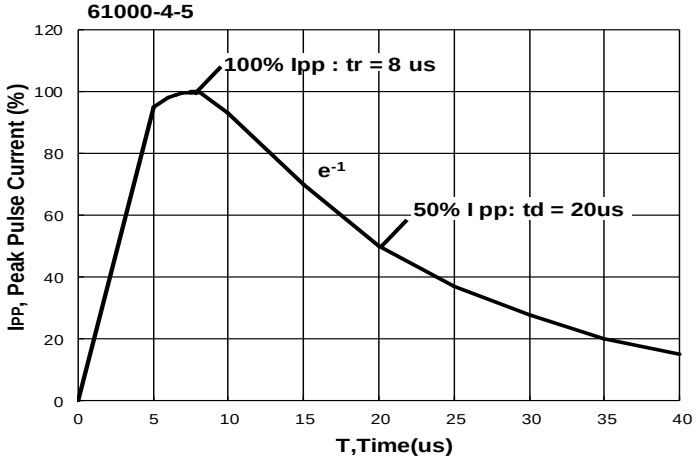


FIG.2 - Power Dissipation Versus Pulse Time

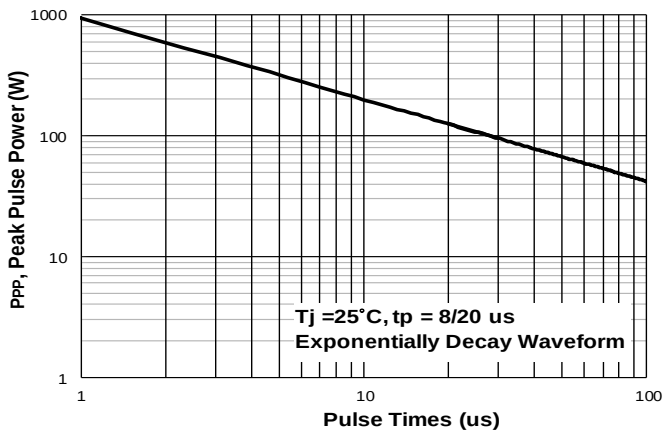


FIG.3 - Peak Pulse Power Versus Tj

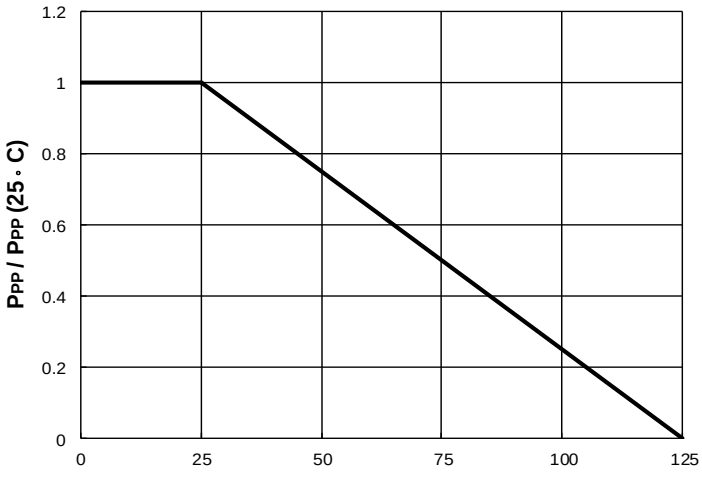
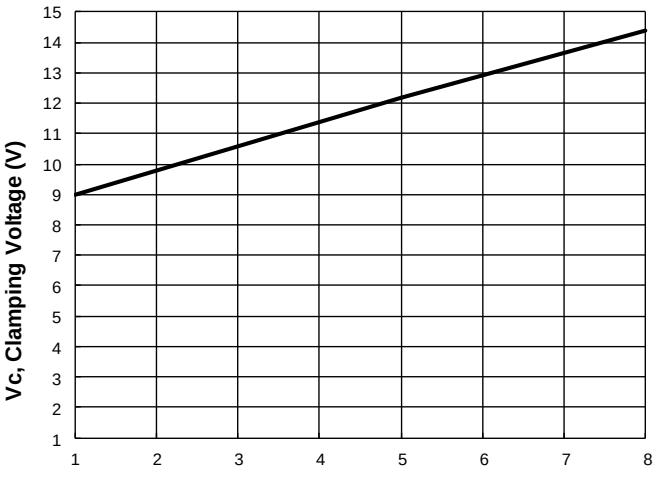
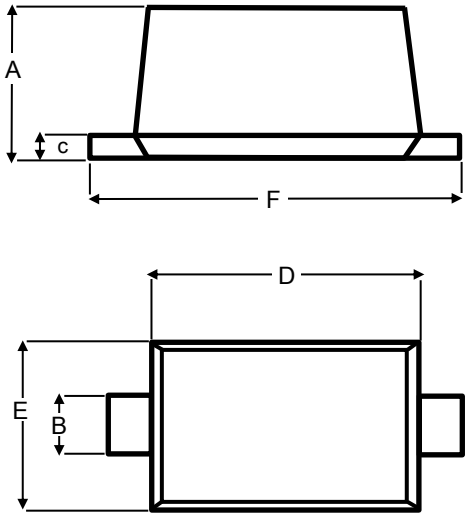


FIG.4 - Clamping Voltage Characteristic



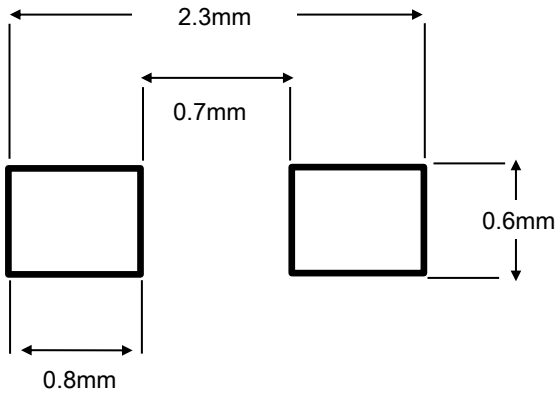
The curve above is for reference only.

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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