

**Uni-directional ESD Protection Diode****Peak Pulse Power -1500 Watts**
Reverse Working Voltage - 5V**Description**

The H90D35V0U offers superior electrical characteristics such as high surge capability. It is designed to protect sensitive electronic components which are connected to power lines, from over-stress caused by ESD (Electrostatic Discharge).

Features

- 1 Channel of ESD Protection (Uni-directional)
- Peak Pulse Power : P_{pp} = 1500W (t_p=8/20 us)
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) : ±30kV(Contact) / ±30kV(Air)

Applications

- Power Supply Protection
- Power Management
- Notebooks / Desktops / Servers
- Cell Phone Handsets and Accessories
- Portable Electronics

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

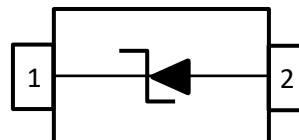
- Package : SOD323
- Reel Size : 7 (inches)
- Quantity Per Reel : 3,000/Tape & Reel
- Quantity One Box : 45,000/Tape & Reel
- Quantity One Carton : 180,000/Tape & Reel

Marking Information

"FS" = Product Type Marking Code

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)	P _{PP}	1500	W
Peak Pulse Current (8/20 us)	I _{PP}	90	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	6	-	-	V
Reverse Current	V _R = 5V	I _R	-	-	2.0	uA
Reverse Clamping Voltage	I _{PP} = 1A (8/20μs)	V _C	-	-	7.5	V
	I _{PP} = 20A (8/20μs)		-	-	8.5	
	I _{PP} = 90A (8/20μs)		-	-	17	
Junction Capacitance	V _R = 0V, F = 1MHz	C _j	-	800	900	p F



Rating and Characteristic Curves

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

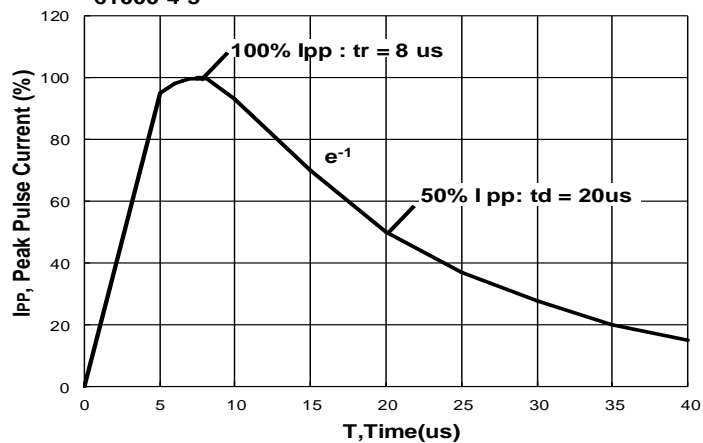


FIG.2 - Power Dissipation Versus Pulse Time

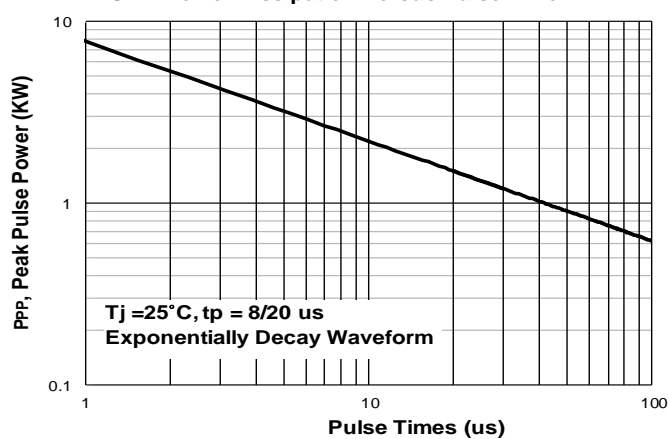


FIG.3 - Peak Pulse Power Versus T_j

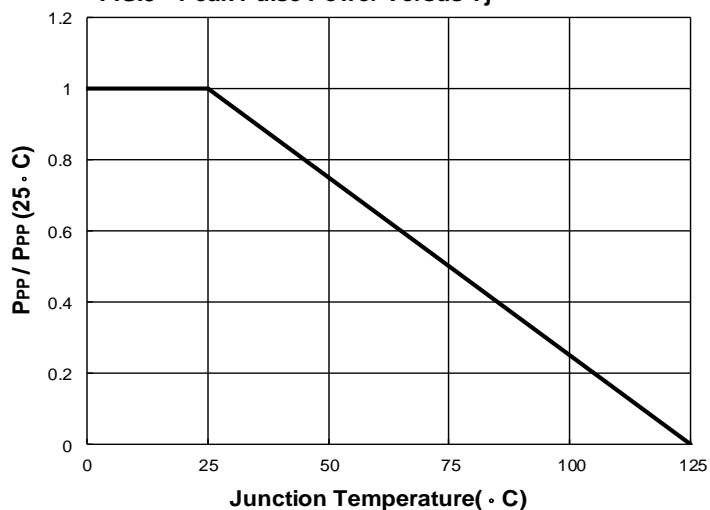
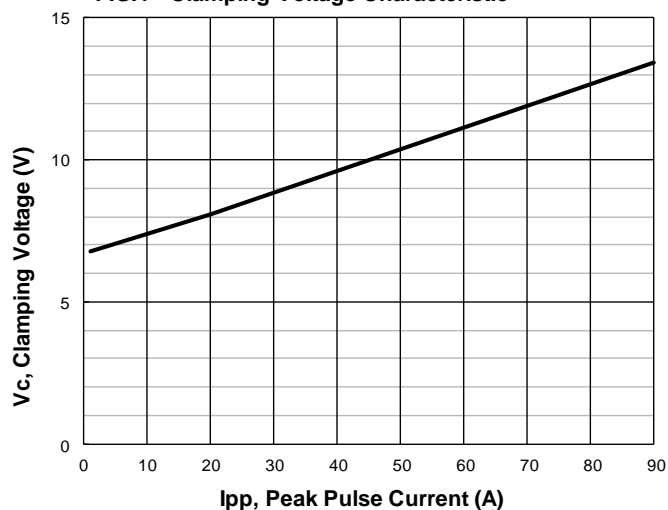
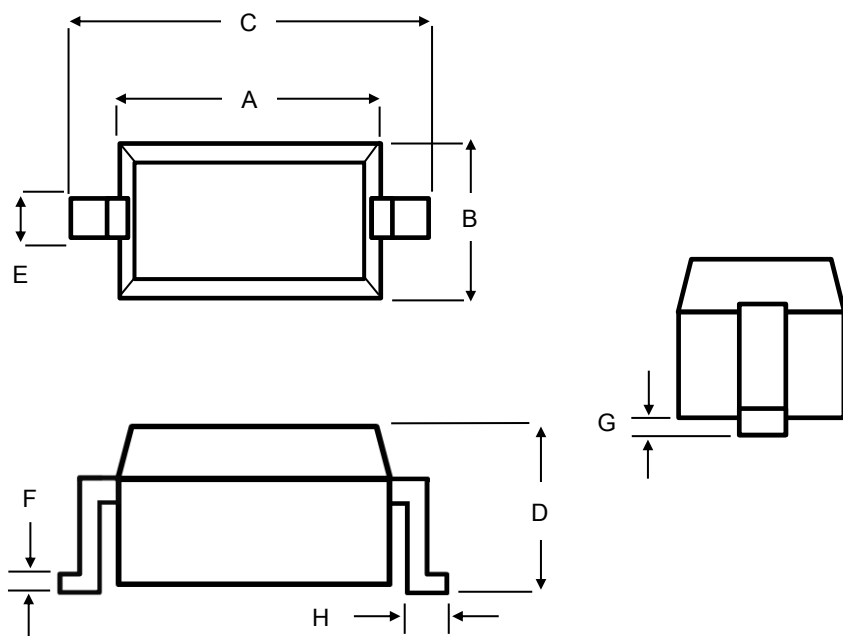


FIG.4 - Clamping Voltage Characteristic



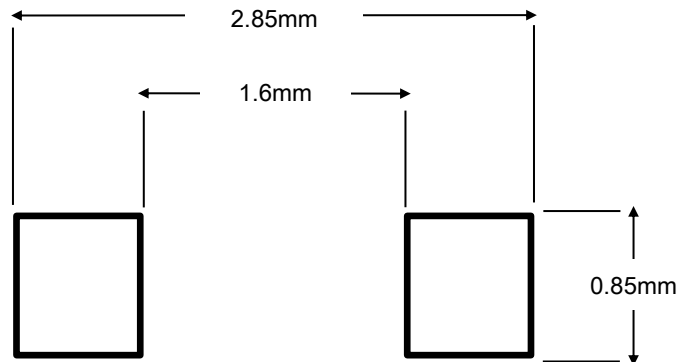


Package Outline Dimensions



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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