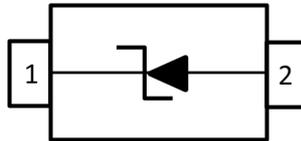


RoHS
Compliant



Device Schematic & PIN Configuration



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).

Applications

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

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) : $\pm 30kV$ (Contact) / $\pm 30kV$ (Air)

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

Maximum Ratings (@ $T_A = +25^{\circ}C$, 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	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	
Soldering Temperature, $t_{max} = 10s$	T_L	260	

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	--	V_{RWM}	-		5	V
Reverse Breakdown Voltage	$I_T = 1\text{mA}$	V_B	6		--	
Reverse Current	$V_R = 5\text{V}$	I_R			20	μA
Reverse Clamping Voltage	$I_{PP} = 1\text{A} (8/20\mu\text{s})$	V_C	-		7.5	V
	$I_{PP} = 20\text{A} (8/20\mu\text{s})$				8.5	
	$I_{PP} = 90\text{A} (8/20\mu\text{s})$				17	
Junction Capacitance	$V_R = 0\text{V}, F = 1\text{MHz}$	C_j		800	900	pF

Rating and Characteristic Curves

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

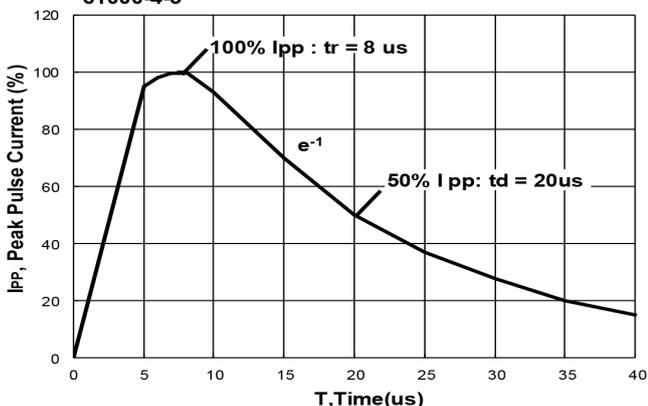


FIG.2 - Power Dissipation Versus Pulse Time

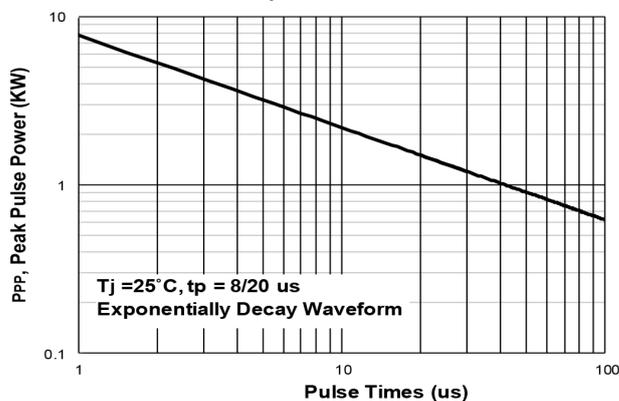


FIG.3 - Peak Pulse Power Versus T_j

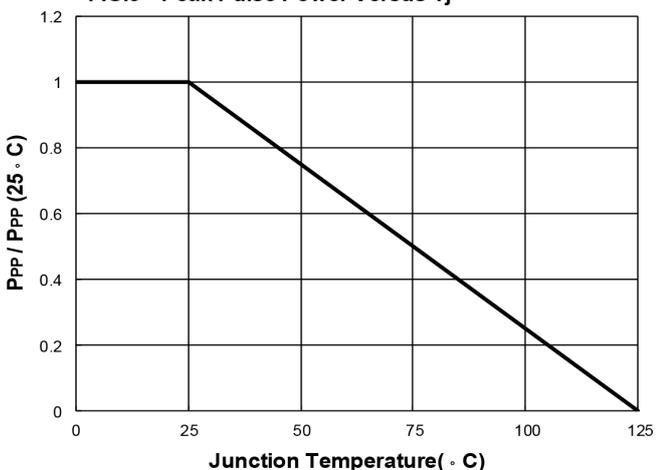
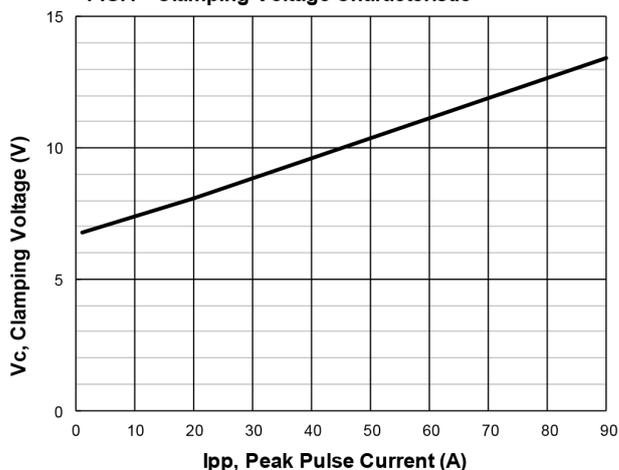
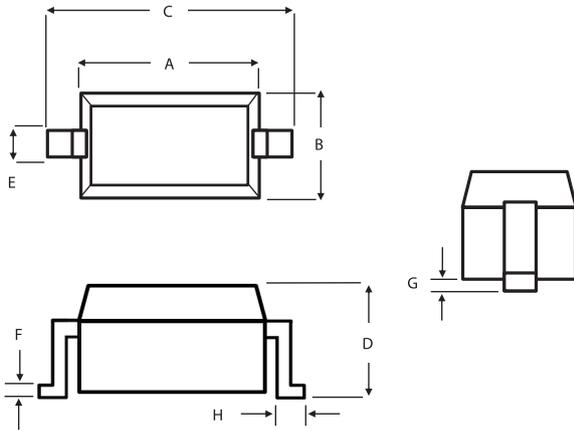


FIG.4 - Clamping Voltage Characteristic

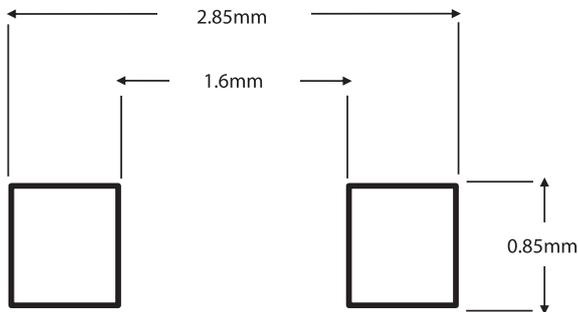


Package Outline Dimensions



SOD323 Package		
Dim	Min	Max
A	1.6	1.8
B	1.2	1.4
C	2.5	2.7
D	--	1
E	0.25	0.35
F	0.08	0.15
G	--	0.1
H	0.25	0.4

Suggested Soldering Pad Layout



Part Number Table

Description	Part Number
ESD Array Protection Device, 90A, 17V, DFN-5210	H90D35V0U

Dimensions : Millimetres

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