

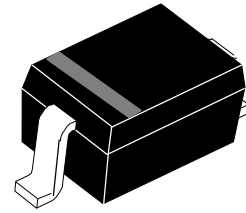
## Features

- 2500W peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-323 package
- Fast response time, typically  $< 1\text{ ns}$
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 30\text{kV}$  (Air) ESD protection
- IEC 61000-4-2  $\pm 30\text{kV}$  (Contact) ESD protection
- IEC 61000-4-5 140A (8/20us) SURGE protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant

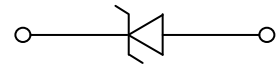
## Applications

- USB Vbus
- Power Line
- Power Management

## SESHC4V5D323-2U



SOD-323



Schematic Diagram

## Absolute Maximum Ratings

( $T_A = 25^\circ\text{C}$ , Unless otherwise specified.)

Rating	Symbols	Value	Units
Peak Pulse Power ( $T_P = 8/20\mu s$ )	$P_{PP}$	2500	W
Peak Pulse Current ( $T_P = 8/20\mu s$ )	$I_{PP}$	140	A
Operating Temperature	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$

## Electrical Characteristics

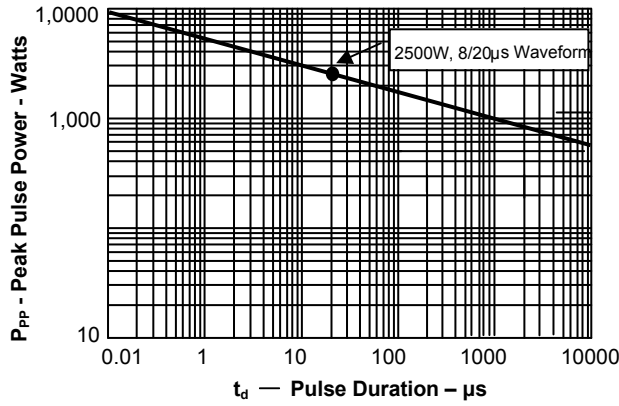
( $T_A = 25^\circ\text{C}$ , Unless otherwise specified.)

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off voltage	$V_{RWM}$				4.5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	4.8			V
Reverse Leakage Current	$I_R$	$V_R = 4.5\text{V}$			1.0	$\mu\text{A}$
Clamping Voltage <sup>(1)</sup>	$V_C$	$I_{PP} = 140\text{A}$			18	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$		1000		pF

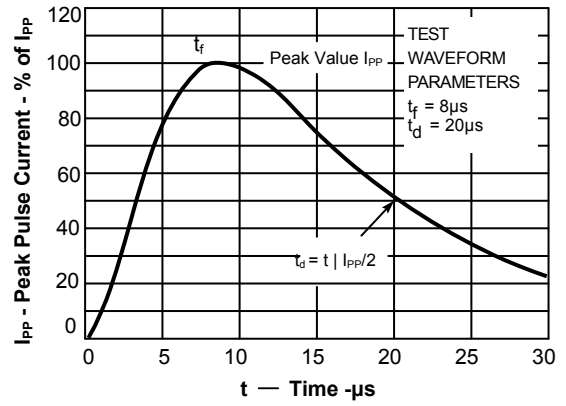
Note1: IEC61000-4-5

## Typical Characteristic Curves

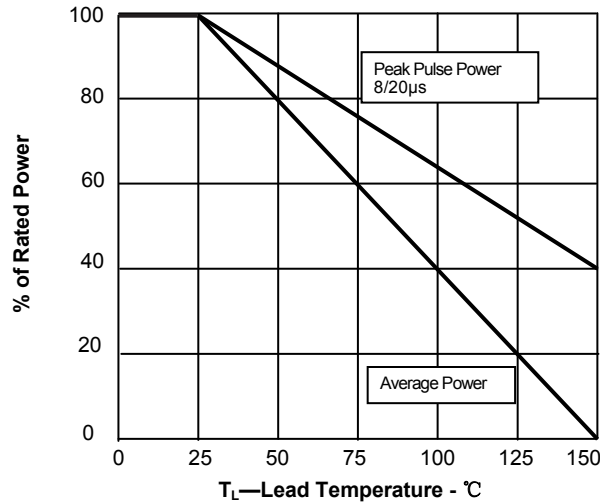
**Fig.1 Peak Pulse Power vs Pulse Time**



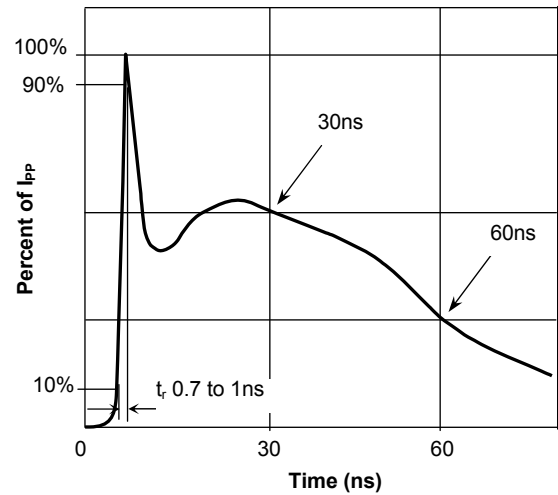
**Fig.2 Pulse WaveForm-8/20μs**



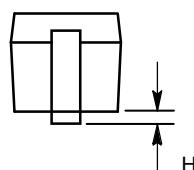
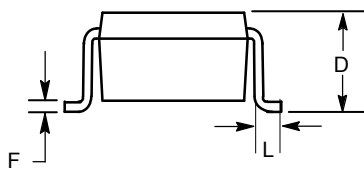
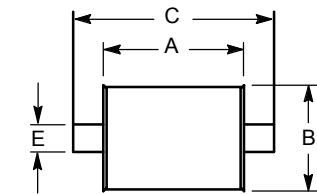
**Fig.3 Power Derating Curve**



**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**

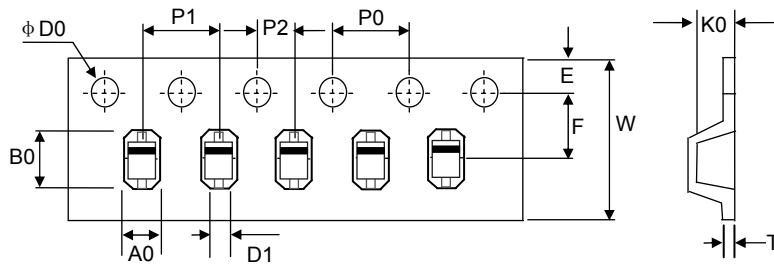


## Product Dimensions



Dim	millimeters	
	min	max
A	1.60	1.90
B	1.15	1.45
C	2.39	2.70
D	0.80	1.10
E	0.25	0.40
F	0.10	0.20
H		0.10
L	0.20	-

## Package Information



Unit:mm

A0	B0	K0	D1	$\phi D0$	E	F	W	P0	P1	P2	T
1.52±0.10	2.90±0.10	1.35±0.10	1.0±0.25	1.50±0.10	1.75± 0.10	3.50± 0.05	8.00± 0.10	4.00±0.10	4.00±0.10	2.00±0.05	0.24~0.27

## Marking



## Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SESHC4V5D323-2U	SOD-323	0.0045g	Tape & Reel	3000pcs	RoHS compliant

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