

## Features

- 350W 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  $\pm 15\text{kV}$  (Air) ESD protection
- IEC 61000-4-2  $\pm 8\text{kV}$  (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant



SOD-323

## Applications

- Laptop computers
- Cellular phones
- Digital cameras
- PDAs



Schematic Diagram

## Absolute Maximum Ratings

( $T_A=25^\circ\text{C}$  unless otherwise specified)

Rating	Symbols	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu s$ )	$P_{PP}$	350	W
Peak Pulse Current ( $T_P=8/20\mu s$ )	$I_{PP}$	13.5	A
Operating Temperature	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$

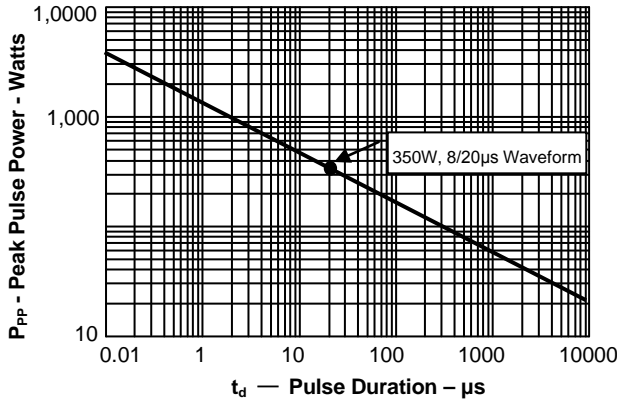
## Electrical Characteristics

( $T_A=25^\circ\text{C}$  unless otherwise specified)

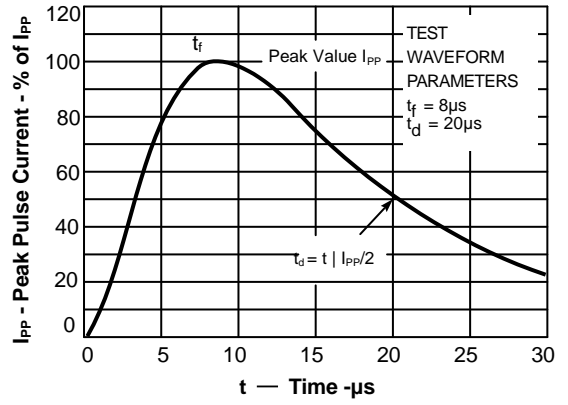
Parameter	Symbols	Conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	$V_{RWM}$		-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	6	-	7.8	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5\text{V}$	-	-	1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}, T_P=8/20\mu s$	-	-	9.8	V
Clamping Voltage	$V_C$	$I_{PP}=9.8\text{A}, T_P=8/20\mu s$	-	17	-	V
Clamping Voltage	$V_C$	$I_{PP}=13.5\text{A}, T_P=8/20\mu s$	-	25	-	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$	-	25	-	pF

**Typical Characteristic Curves**

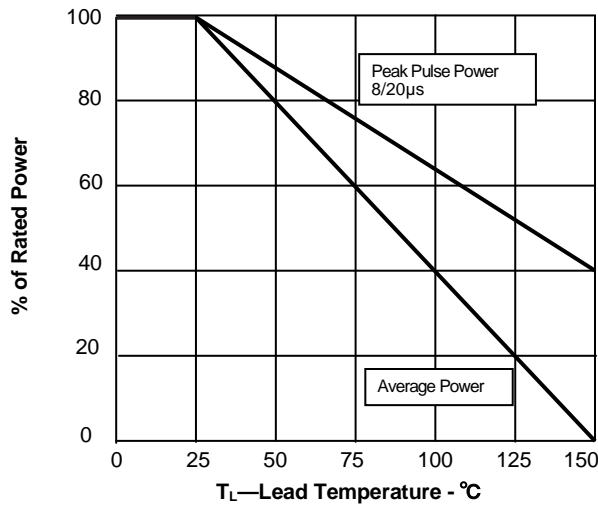
**Fig.1 Peak Pulse Power vs Pulse Time**



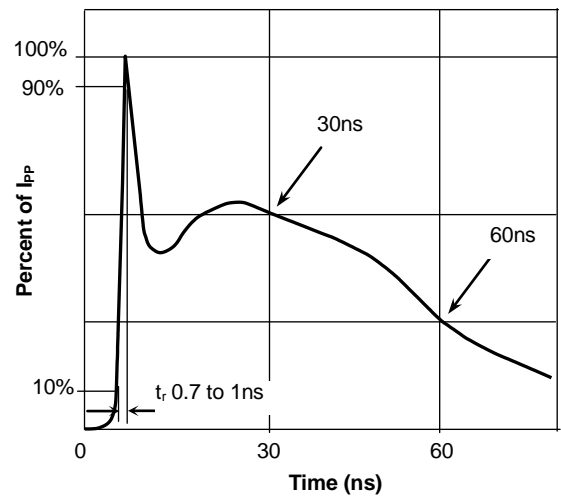
**Fig.2 Pulse WaveForm-8/20μs**



**Fig.3 Power Derating Curve**

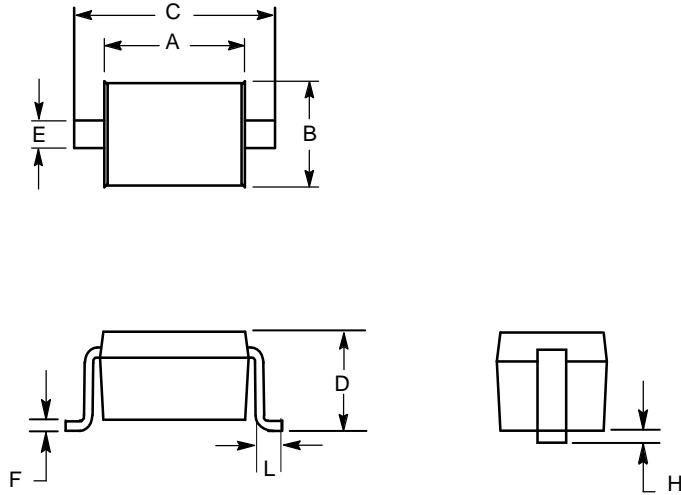


**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



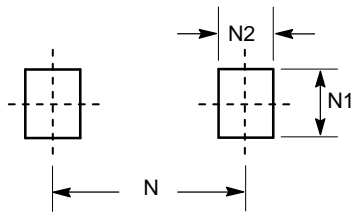
**Product Dimensions**

SOD-323



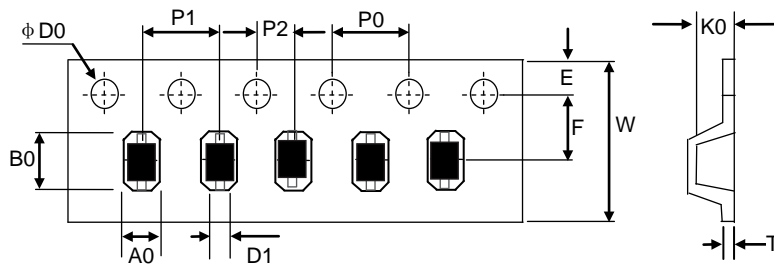
Dim	millimeters	
	min	max
A	1.60	1.90
B	1.15	1.45
C	2.39	2.70
D	0.80	1.10
E	0.25	0.40
F	0.10	0.20
H		0.10
L	0.20	-

**PAD Dimensions**



Dim	millimeters
N1	0.80
N2	0.80
N	3.00

**Package Information**



Unit:mm

A0	B0	K0	D1	φ 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
SES5VD323-2B	SOD-323	0.0045g	Tape & Reel	3000pcs	RoHS compliant