

## ESD Protection Diode

### Features

- 350W peak pulse power ( $t_p=8/20\ \mu s$ )
- SOD-323 package
- Fast response time, typically  $< 1\ ns$
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 30kV$  (Air) ESD protection
- IEC 61000-4-2  $\pm 30kV$  (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant



**RoHS**  
COMPLIANT



**Marking: 5C**

**SOD-323**



**Schematic Diagram**



### Applications

- Laptop computers
- Cellular phones
- Digital cameras
- PDAs

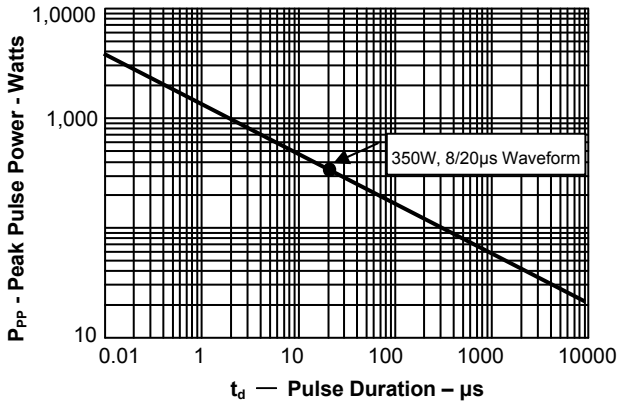
Absolute Maximum Ratings ( $T_A=25^\circ C$ unless otherwise noted)			
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\ \mu s$ )	P <sub>pp</sub>	350	W
Peak Pulse Current ( $T_P=8/20\ \mu s$ )	I <sub>pp</sub>	13.5	A
Operating Temperature	T <sub>J</sub>	-55-+150	°C
Storage temperature	T <sub>STG</sub>	-55-+150	°C

Electrical Characteristics ( $T_A=25^\circ C$ unless otherwise noted)						
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	V <sub>RWM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6		7.8	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V			1	μA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, T <sub>P</sub> =8/20μs			9.8	V
		I <sub>PP</sub> =9.8A, T <sub>P</sub> =8/20μs		17		
		I <sub>PP</sub> =13.5A, T <sub>P</sub> =8/20μs		25		
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1MHz		80	100	pF

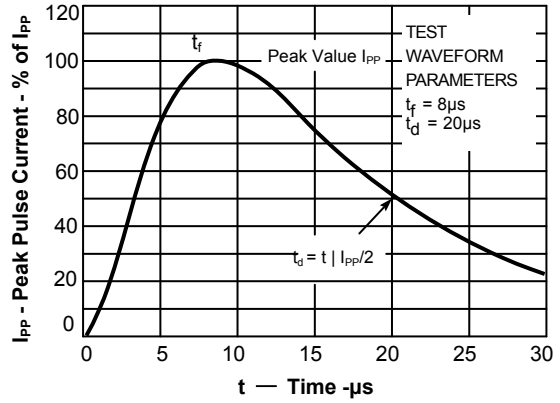
## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

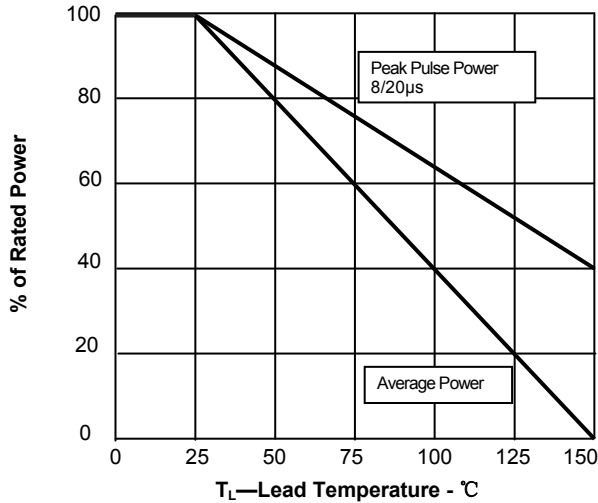
**Fig.1 Peak Pulse Power vs Pulse Time**



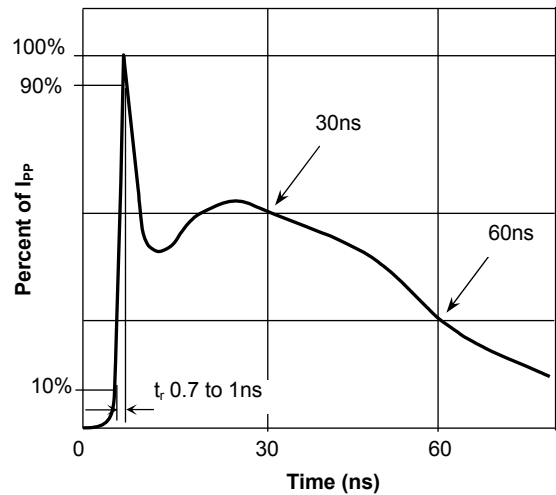
**Fig.2 Pulse WaveForm-8/20μs**



**Fig.3 Power Derating Curve**

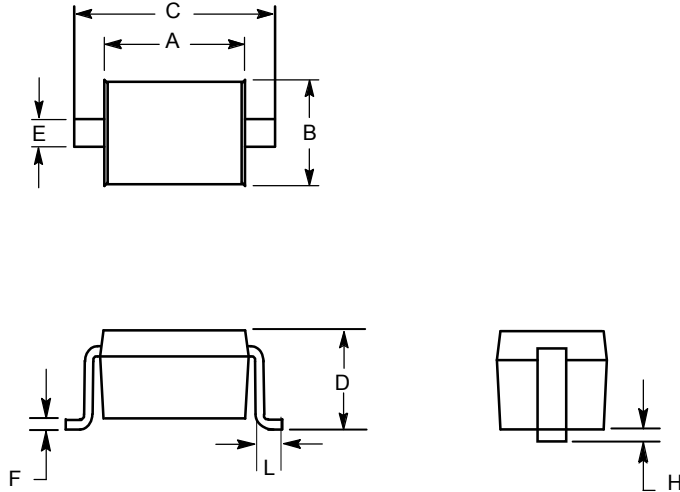


**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



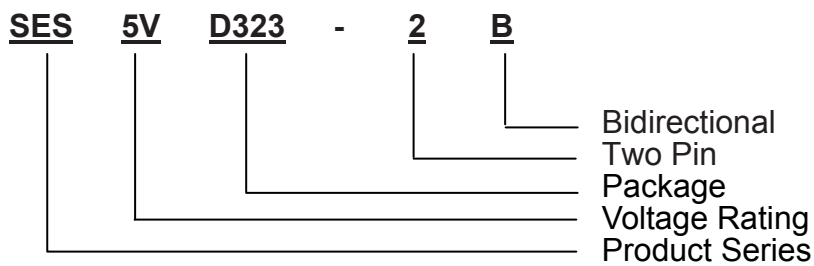
## Package Outline Dimensions

millimeters



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	-

## Part Number System



## Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.05.01	First issue

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