

## ESD Protection Diode

### Features

- 360W 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 61000-4-5 24A (8/20us) Surge protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant

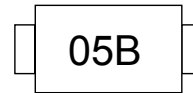


**RoHS**  
COMPLIANT

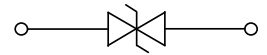


**SOD-323**

**Marking: 05B**



**Schematic Diagram**



### Applications

- Laptop computers
- Cellular phones
- Digital cameras
- PDAs

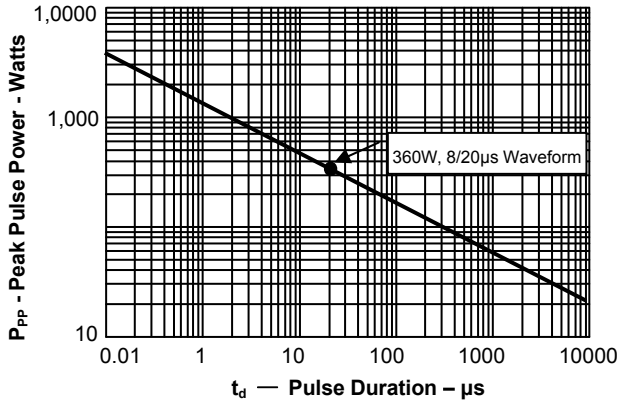
Absolute Maximum Ratings (TA=25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Peak Pulse Power (TP=8/20μ S)	Ppp	360	W
Peak Pulse Current (TP=8/20μS)	Ipp	24	A
Operating Temperature	TJ	-55-+125	°C
Storage temperature	TSTG	-65-+150	°C

Electrical Characteristics (TA=25°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			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> =24A ,T <sub>P</sub> =8/20μs		15		V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V,f=1MHz		80	90	pF

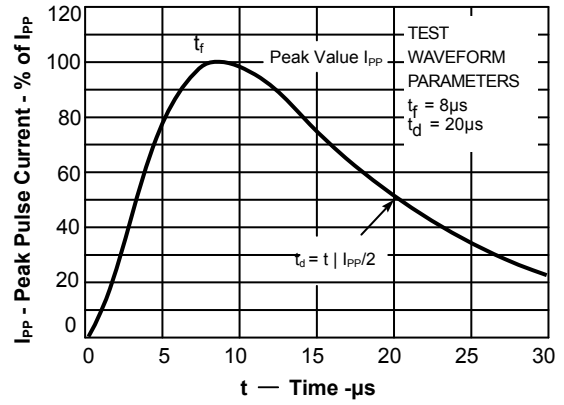
## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

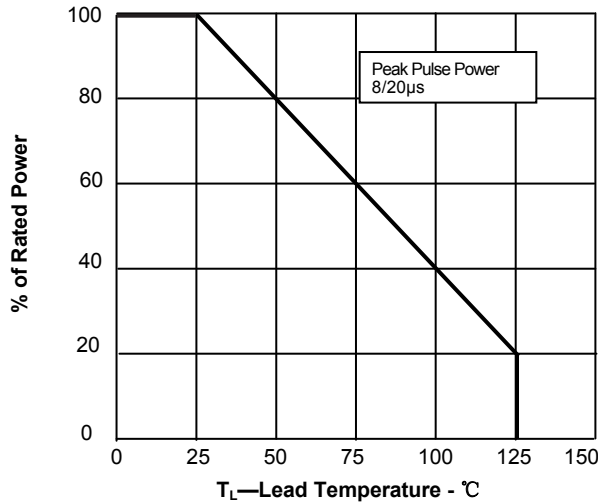
**Fig.1 Peak Pulse Power vs Pulse Time**



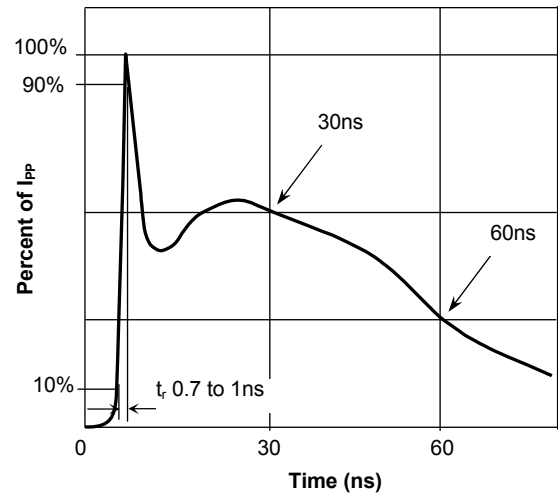
**Fig.2 Pulse WaveForm-8/20μs**



**Fig.3 Power Derating Curve**

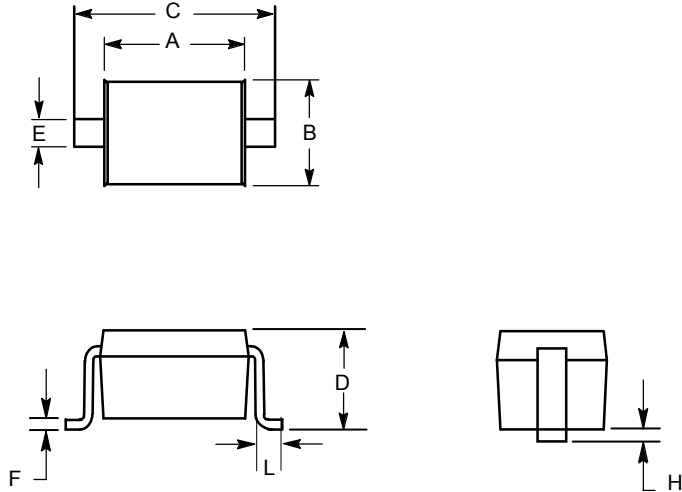


**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



## Package Outline Dimensions

in inches (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	-

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2022.08.01	First issue

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