

## Features

- \* Ultra low leakage: nA level
- \* Low clamping voltage
- \* RoHS Compliant
- \* REACH & SVHC Compliant
- \* Halogen Compliant
- \* SOD-523 Package

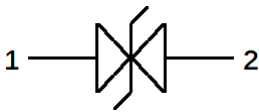


SOD-523

## Ordering Information

Part Number	Packaging	Reel Size
PESD5V0S1BBN	5000/Tape & Reel	7 inch

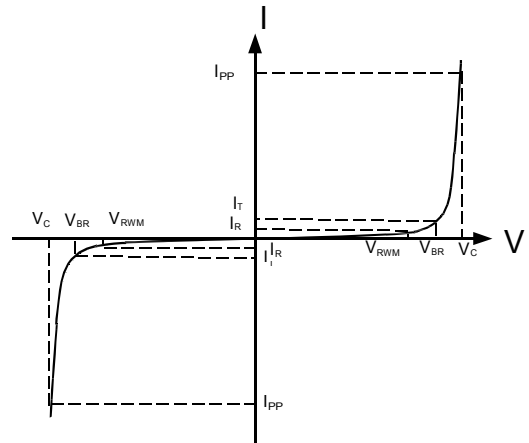
## Circuit Diagram



## Marking Diagram :5C

## Portion Electronics Parameter

Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$



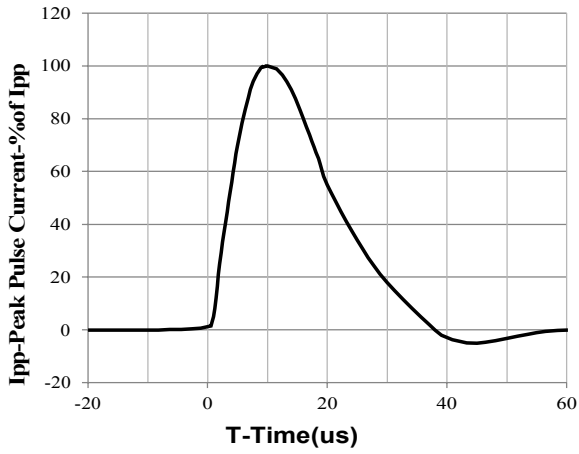
## Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ pulse)	$P_{pk}$	120	W
Peak Pulse Current (8/20 $\mu\text{s}$ pulse)	$I_{PP}$	10	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 30$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	$T_J$	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

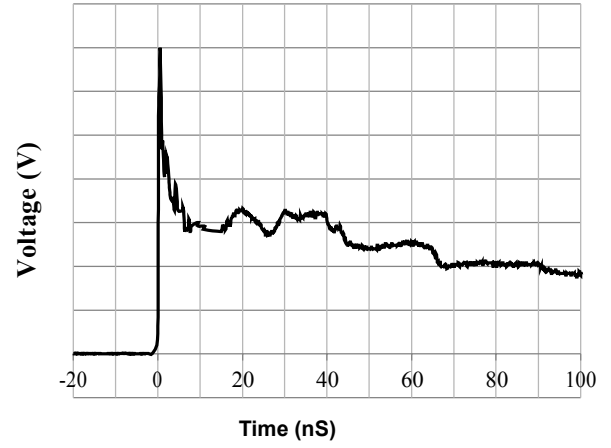
**Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V <sub>RWM</sub>				5	V
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			200	nA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A (8 / 20μs pulse)		7.1	9	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 10A (8 / 20μs pulse)		8.3	12	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz,		17	25	pF

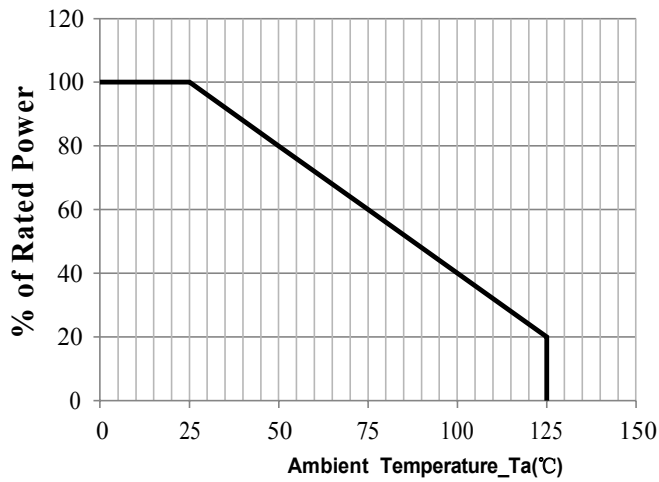
Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)



8 / 20us Pulse Waveform

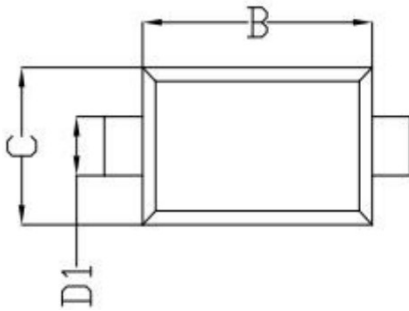


IEC61000-4-2 Pulse Waveform

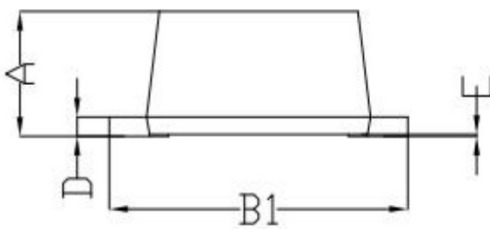


Power Derating Curve

**SOD-523 Package Outline Drawing**



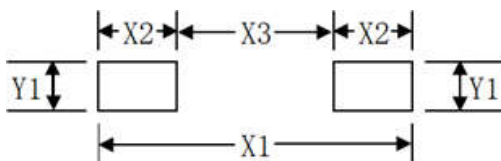
**TOP VIEW**



**SIDE VIEW**

SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	Min	Typ	Max	Min	Typ	Max
A	0.60	0.65	0.70	0.0236	0.0256	0.0276
B	1.15	1.20	1.25	0.0453	0.0472	0.0492
B1	1.55	1.60	1.65	0.0610	0.0630	0.0650
C	0.75	0.80	0.85	0.0295	0.0315	0.0335
D	0.10	0.11	0.12	0.0039	0.0043	0.0047
D1	0.28	0.30	0.32	0.0110	0.0118	0.0126
E	0.00	-	0.02	0.0000	-	0.0008

**Suggested Land Pattern**



SYM	DIMENSIONS	
	MILLIMETER	INCHES
X1	2.00	0.079
X2	0.60	0.024
X3	0.80	0.031
Y1	0.50	0.020

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