

## FEATURES:

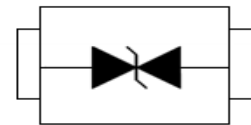
- ✧ Protects one bi-directional I/O line
- ✧ Low clamping voltage
- ✧ Low operating voltage: 3.3V
- ✧ ROHS compliant



SOD-523

## MAIN APPLICATIONS

- ✧ Cell Phone Handsets and Accessories
- ✧ Personal Digital Assistants (PDA's)
- ✧ Notebooks, Desktops, and Servers
- ✧ Portable Instrumentation
- ✧ Pagers
- ✧ Microprocessor based equipment



PIN Configuration

## PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)

## MECHANICAL CHARACTERISTICS

- ✧ Package SOD-523
- ✧ Molding Compound Flammability Rating : UL 94V-O
- ✧ Quantity Per Reel : 3,000pcs
- ✧ Lead Finish : Lead Free
- ✧ Marking code: eB

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, RH=45%-75%, unless otherwise noted)

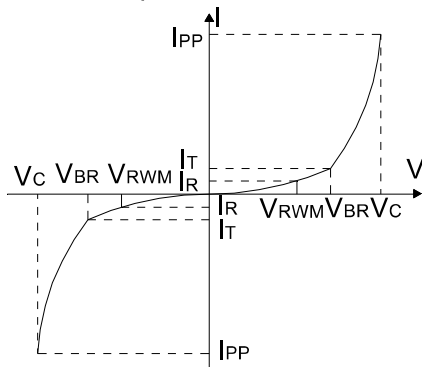
Parameter	Symbol	Value	Unit
Storage temperature range	T <sub>stg</sub>	-55 to +150	°C
Operating junction temperature range	T <sub>j</sub>	-55 to +125	°C
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Peak pulse power dissipation on 8/20 μs waveform	P <sub>PP</sub>	72	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

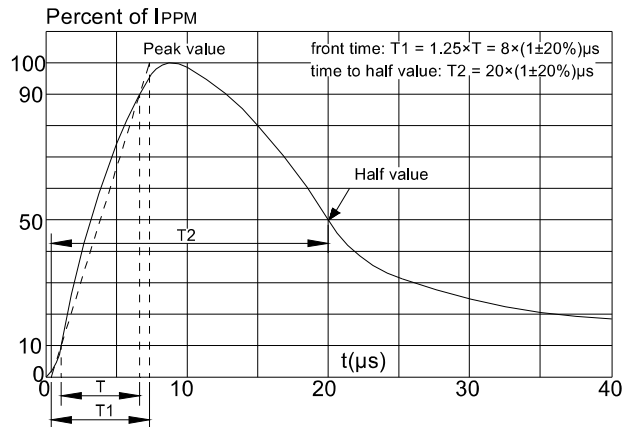
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V <sub>R</sub>				3.3	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> = 1mA	4.5		6.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 3.3V			1.0	μA
Peak Pulse Current	I <sub>pp</sub>	t <sub>p</sub> = 8/20μs			8	A
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20μs			7	V
		I <sub>PP</sub> = 8A, t <sub>p</sub> = 8/20μs			9	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz		15	20	pF

## RATINGS AND V-I CHARACTERISTICS CURVES (T<sub>A</sub>=25°C, unless otherwise noted)

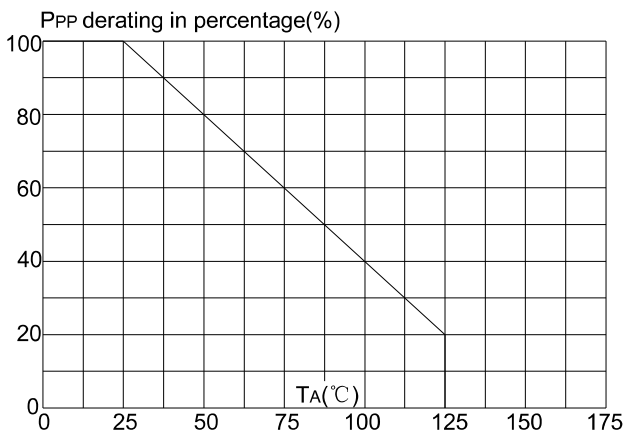
**FIG.1: V- I curve characteristics (Bi-directional)**



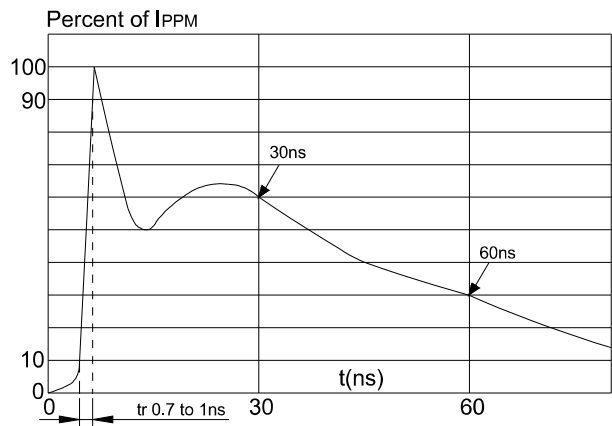
**FIG.2: Pulse waveform (8/20μs)**



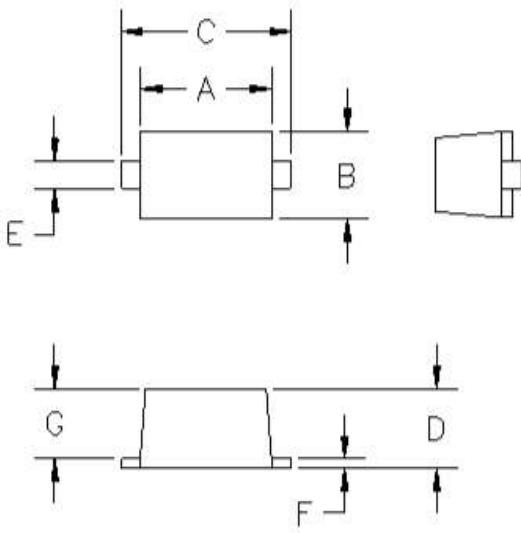
**FIG.3: Pulse derating curve**



**FIG.4: ESD clamping**



## PACKAGE MECHANICAL DATA



DIMENSIONS					
DIM <sup>N</sup>	INCHES		MM		NOTE
	. MIN	MAX	MIN	MAX	
A	.043	.051	1.10	1.30	—
B	.028	.035	0.70	0.90	—
C	.059	.067	1.50	1.70	—
D	.020	.028	0.50	0.70	—
E	.010	.014	0.25	0.35	—
F	.004	.008	0.10	0.20	—
G	.020	.028	0.50	0.70	—

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