Features

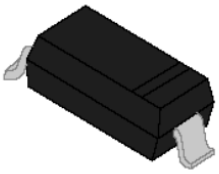
- ❖ Small SOD-323 package
- ❖ Protects one data or power line
- ❖ Operating Voltage: 4.5V
- ❖ High peak pulse current capability
- ❖ Ultra low clamping voltage
- ❖ Complies with following standards:

  IEC 61000-4-2 (ESD) immunity test

  Air discharge: ±30kV

  Contact discharge: ±30kV

  IEC61000-4-5 (Lightning) 130A (8/20μs)
- ❖ RoHS Compliant



SOD-323

symbol

Applications

- ❖ Mobile Phones and Accessories
- ❖ Battery Protection
- ❖ Power Supply Protection
- ❖ Hand Held Portable Applications
- ❖ Peripherals

Absolute Maximum Ratings (T_A=25℃, RH=45%-75%, unless otherwise noted)

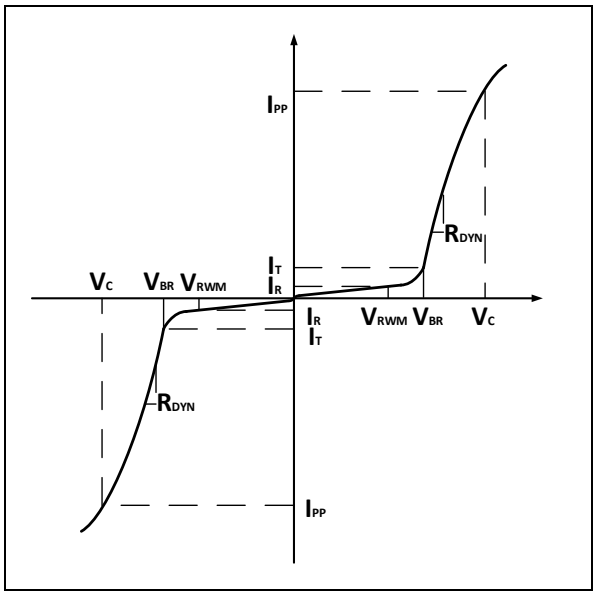
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P_{PK}	2200	W
Peak Pulse Current (tp=8/20μs)	I_{PP}	130	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±30 ±30	KV
Operating temperature range	T_J	-55 to +125	℃
Storage temperature range	T_{STG}	-55 to +150	℃

Electronics Characteristics (T_A=25℃, continued)

Symbol	Parameter	Conditons	Min.	Typ.	Max.	Units
V_{RWM}	Reverse Working Voltage		-4.5		4.5	V
V_{BR}	Reverse Breakdown Voltage	I_T=1mA	4.7			V
I_R	Reverse Leakage Current	V_{RWM}=±4.5V			1.0	μA
V_C	Clamping Voltage	I_{PP}=1A, tp=8/20μs		5.8		V
		I_{PP}=20A, tp=8/20μs		6.5		V
		I_{PP}=130A, tp=8/20μs		10	17	V
C_J	Junction Capacitance	V_R=0V, f=1MHz		380		pF

Electrical Characteristics

Symbol	Parameter
V_{RWM}	Reverse Standoff Voltage
I_R	Max Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Max Peak Pulse Current
R_{DYN}	Dynamic Resistance



Typical Characteristics

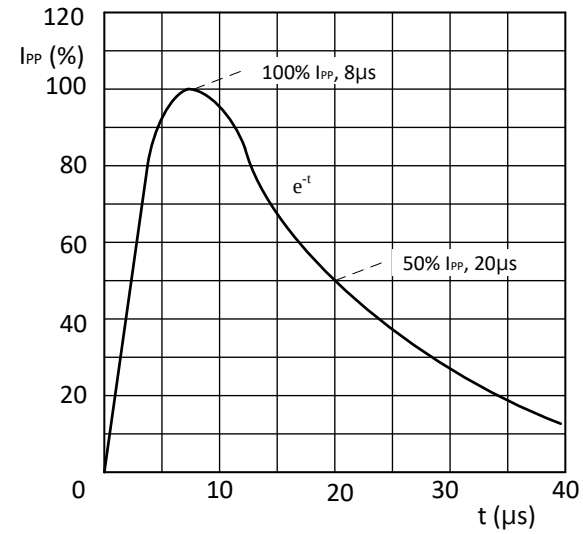


Fig. 1. 8/20 μs pulse waveform according to IEC 61000-4-5 and IEC 61643-321

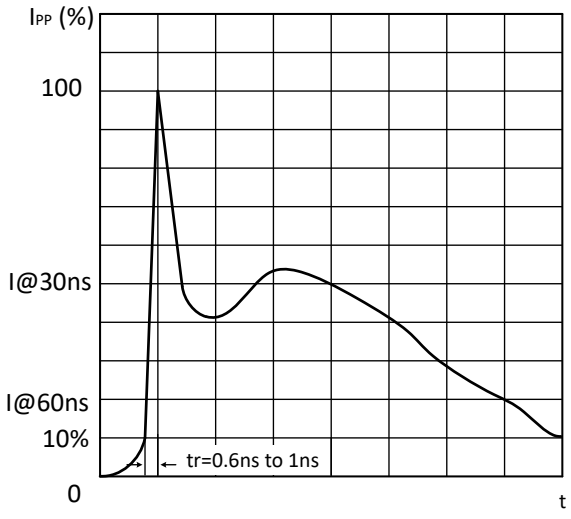


Fig. 2. ESD pulse waveform according to IEC 61000-4-2

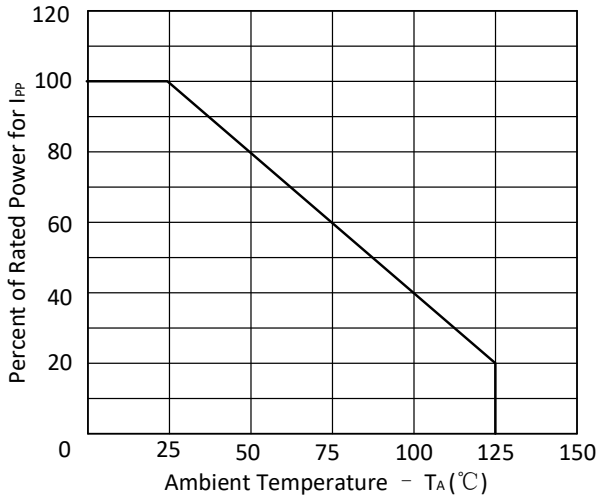


Fig. 3. Power Derating Curve

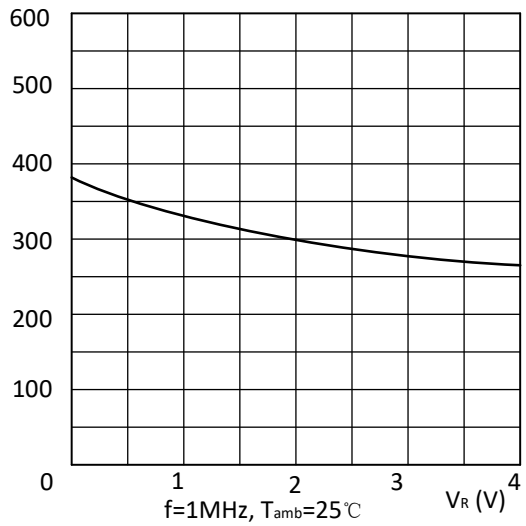
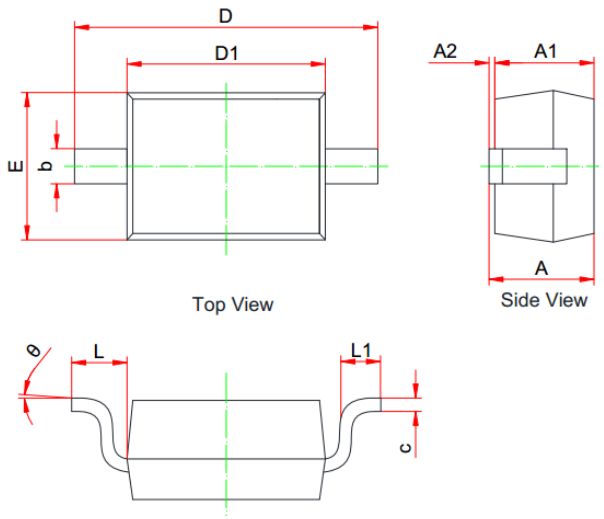


Fig. 4. Junction Capacitance vs V_R

Package Mechanical Data



Symbol	Millimeters		
	min	nom	max
A	0.800	- -	1.100
A1	0.800	- -	0.900
A2	0.000	- -	0.100
b	0.250	- -	0.400
c	0.080	- -	0.177
D1	1.600	1.700	1.800
D	2.300	- -	2.800
E	1.150	- -	1.400
L	0.475REF		
L1	0.100		0.500
θ	0°		8°

Ordering Information

Device	Package	Quantity	Delivery Mode	Reel Size
YZPST-ESD4V5S1BBA	SOD-323	3000/Reel	Tape and Reel	7 inch

Revision History

Revision	Modification Description
Revision 2020/04/29	Preliminary Release.

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