

Features

- Uni-directional ESD protection of one lines
- 350W Peak pulse Power (8/20us)
- Working voltage: 3.3V
- Junction Capacitance: 0.8pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 10\text{kV}$ contact $\pm 15\text{kV}$ air
- IEC 61000-4-5 (Lightning) 20A (8/20 μs)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

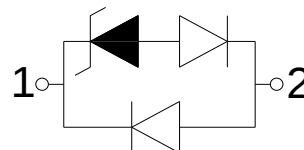
Applications

- USB 2.0/1.1
- Ethernet 10/100/1000 Mbps
- GPIO
- Audio
- Industrial and Serve Robots
- Laptops and Desktops
- TV and Monitors
- Wearables

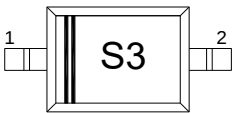
Mechanical Data

- Package:SOD-323
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
PESD3V3U1UA	SOD-323		3000 Tape & Reel	7 inches

Absolute Maximum Rating($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

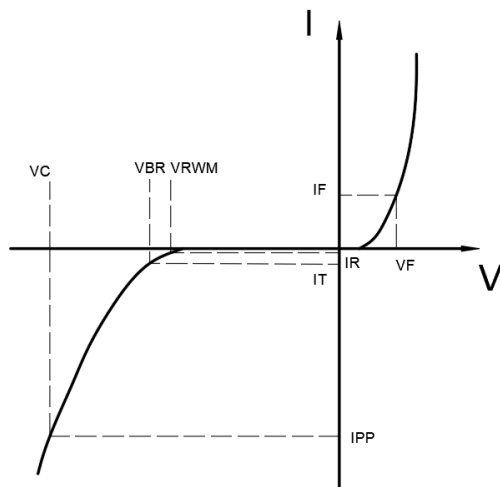
Parameters	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)@ 25°C	Ppk	-	350	W
Peak pulse current ($t_p=8/20\mu\text{s}$)@ 25°C	IPP		20	A
ESD (IEC61000-4-2 air discharge) @ 25°C	VESD	-	15	kV
ESD (IEC61000-4-2 contact discharge) @ 25°C	VESD	-	10	kV
Junction temperature	TJ	-	150	$^{\circ}\text{C}$
Operating temperature	TOP	-40	125	$^{\circ}\text{C}$
Storage temperature	TSTG	-55	150	$^{\circ}\text{C}$
Lead temperature	TL	-	260	$^{\circ}\text{C}$

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

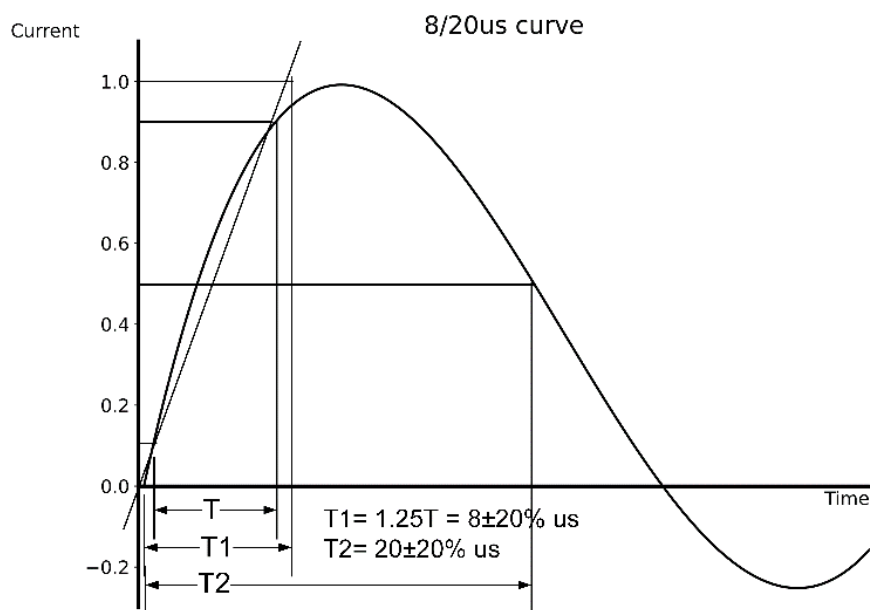
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				3.3	V
Breakdown Voltage	VBR	IT = 1mA	4.5			V
Reverse Leakage Current	IR	VRWM = 3.3V			1	μA
Holding Voltage	VC	IPP=1A; $t_p=8/20\mu\text{s}$		6		V
Clamping Voltage	VC	IPP=20A; $t_p=8/20\mu\text{s}$		16		V
Junction Capacitance	CJ	VR = 0V, f = 1MHz		0.8		pF



Symbol	Parameters
VRWM	Peak Reverse Working Voltage
IR	Reverse Leakage Current @ VRWM
VBR	Breakdown Voltage @ IT
IT	Test Current
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
IF	Forward Current
VF	Forward Voltage @ IF

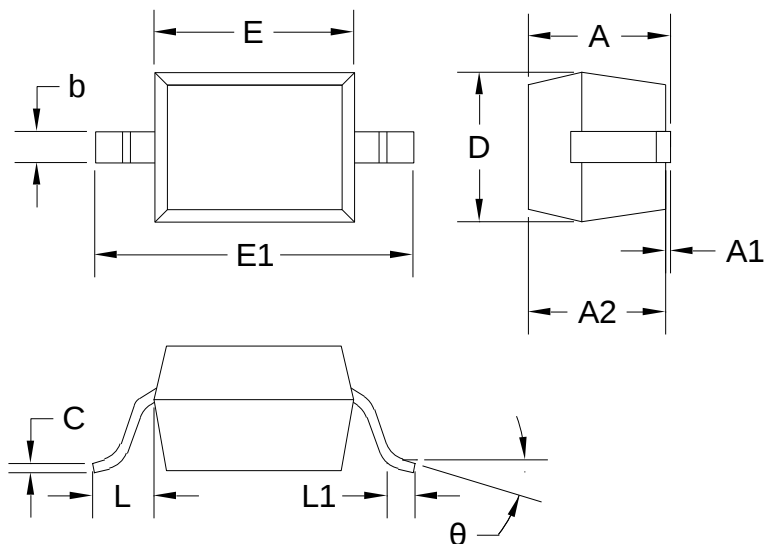


Typical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)





Outline Drawing – SOD-323



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
C	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°