伯恩半导体
BORN SEMICONDUCTOR

PESD3V3L1UA-N

ESD Protection Diode

»Features

- 300Watts peak pulse power (tp = 8/20μs)
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 20A (8/20μs)



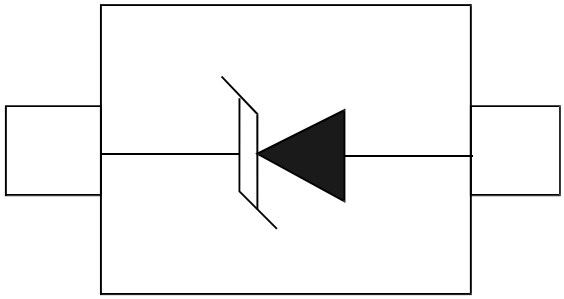
»Applications

- USB Vbus,
- Power Line
- Power management

»Mechanical Data

- SOD323 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

»Schematic & PIN Configuration



SOD-323

»Absolute Maximum Rating

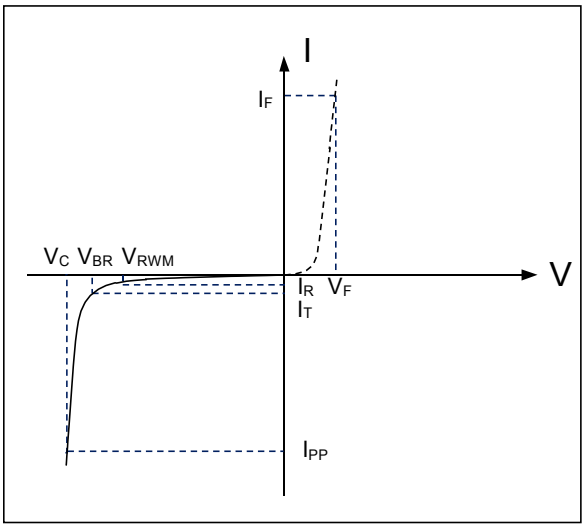
Rating	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	300	Watts
Peak Pulse Current (t_p =8/20μs) (note1)	I_{pp}	20	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 150	℃
Storage Temperature	T_{stg}	-55 to + 150	℃

»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	4.0			V
Reverse Leakage Current	I_R	V_{RWM}=3.0V,T=25℃			1	uA
Clamping Voltage	V_C	I_{PP}=20A,t_p=8/20μs			15	V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		200	210	pF

»Electrical Parameters (TA = 25°C unless otherwise noted)

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



Note:. 8/20μs pulsewaveform.

»Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

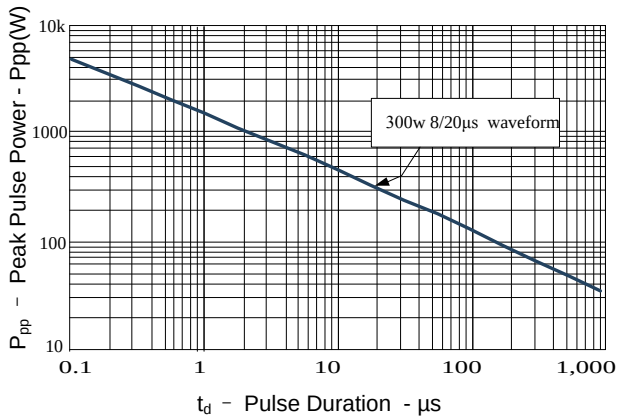


Figure 2: Power Derating Curve

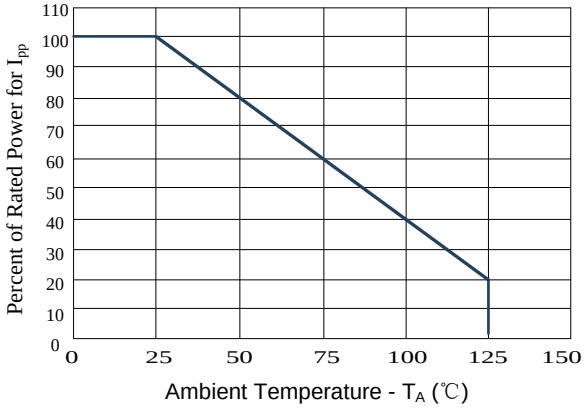


Figure3: Pulse Waveform

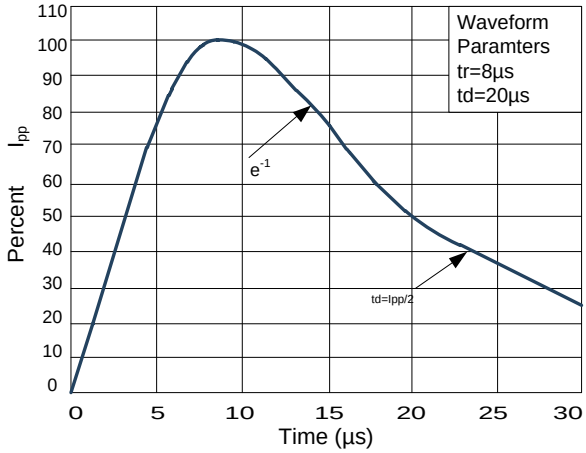
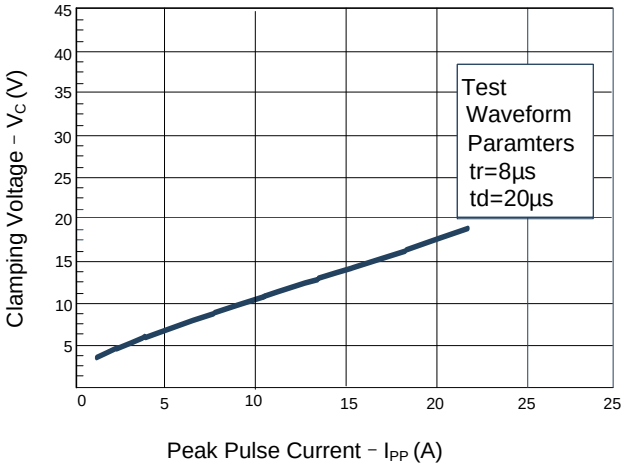
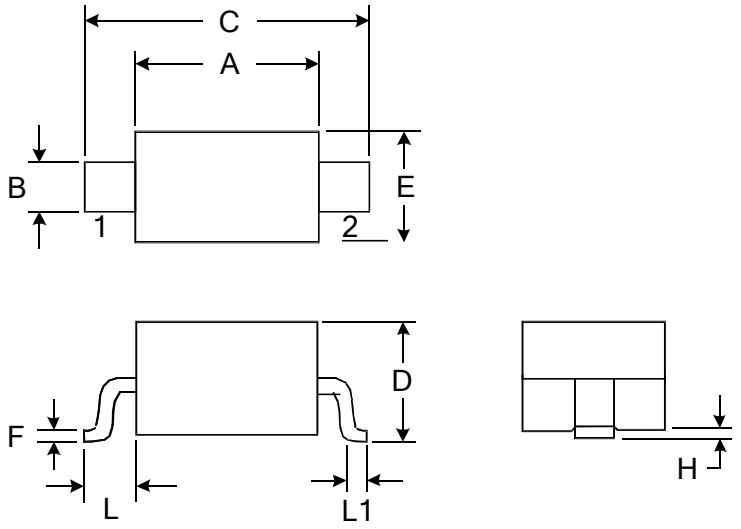


Figure 4: Clamping Voltage vs.Ipp



»Outline Drawing – SOD323



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

»Marking



Pin Style: 1. Cathode 2. Anode

»Ordering information

Order code	Package	Base qty	Delivery mode
PESD3V3L1UA-N	SOD323	3000	Tape and reel

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

BORN:

GBLC03C-N MMBZ39VCLT1G-N P4SMA6.8CA BDFN1C031V BST23A052U 1.5SMBJ18CA BAT46X BC858B BM3134E ESDA14V2L MMBZ27VCLT1G-N PESD15VL1BA-N S8550 SM24CANB-02HTG-N SMFJ170A 1N4148WT BML6401 BSD9C051V GBJ1510 PSD24-N 1.0SMBJ6.5A 1.5SMBJ40CA BSD3A241V BWF102N SMD2920-400/30N 5.0SMDJ15CA BN5A181V45 BSD3C031LX BDFN2C031V BSD3A031V