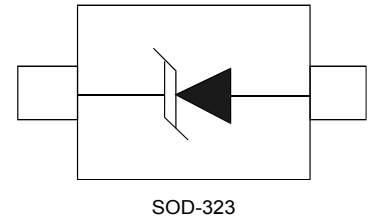


**Features**

- 240Watts 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) 16A(8/20µs)



**Applications**

- USB Vbus
- Power Line
- Power management

**Mechanical Data**

- SOD-323 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel

**Absolute Maximum Rating**

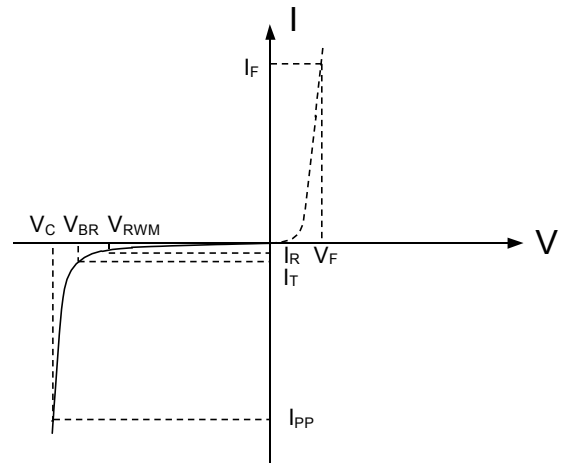
Rating	Symbol	Value	Units
Peak Pulse Power ( tp =8/20µs )	P <sub>PP</sub>	240	Watts
Peak Pulse Current ( tp =8/20µs ) (note1)	I <sub>pp</sub>	16	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V <sub>ESD</sub>	30 30	kV
Lead Soldering Temperature	T <sub>L</sub>	260(10seconds)	°C
Junction Temperature	T <sub>J</sub>	-55 to + 150	°C
Storage Temperature	T <sub>stg</sub>	-55 to + 150	°C

**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	4.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3V, T=25^{\circ}C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=16A, t_p=8/20\mu s$			15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		100	150	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



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

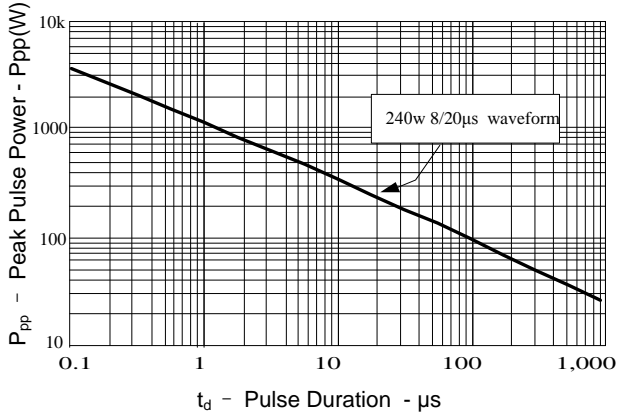


Figure 2: Power Derating Curve

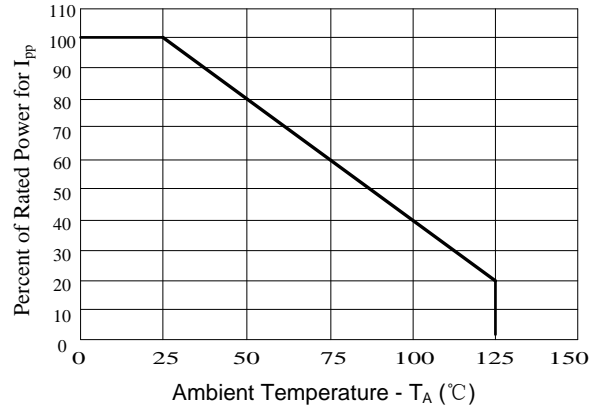


Figure3: Pulse Waveform

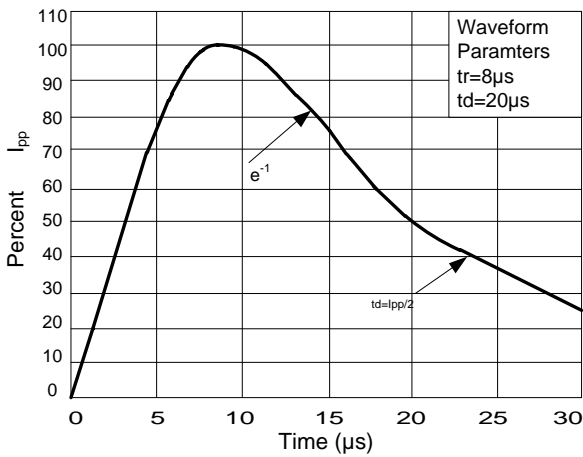
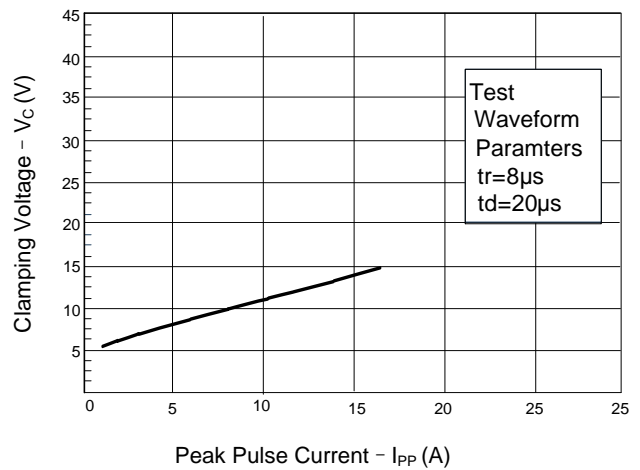
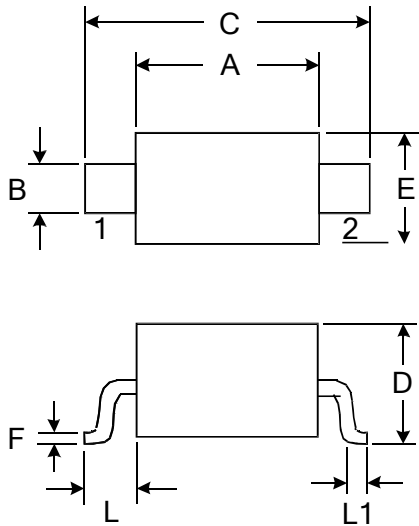


Figure 4: Clamping Voltage vs. I\_pp



Outline Drawing – SOD-323



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



Ordering information

Order code	Package	Baseqty	Deliverymode
UMW BSD3A031V	SOD-323	3000	Tape and reel

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