

Features

- Small SOD-323 package
- Protects one data or power line
- Working Voltage: 22V
- High peak pulse current capability
- Ultra low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 80A (5/50ns)
 - IEC61000-4-5 (Lightning) 21A (8/20 μs)
- RoHS Compliant

Applications

- Mobile Phones and Accessories
- Battery Protection
- USB VBus
- Power Line Protection
- Hand Held Portable Applications

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Sn
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

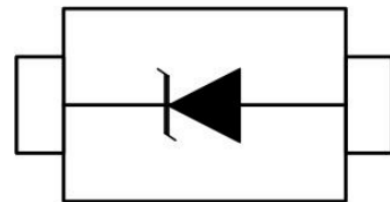
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppp	945	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Dimensions SOD-323



Pin Configuration



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

Part Number	Device Marking	V_{RWM} (V)	V_{BR} (V)	I_T (mA)	V_C @1A	V_C		I_R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
SD2271D3	P25	22	24.3	1	29	45	21	1	127

TYPIC CHARACTERISTICS

Figure 1. 8 x 20 μs Waveform

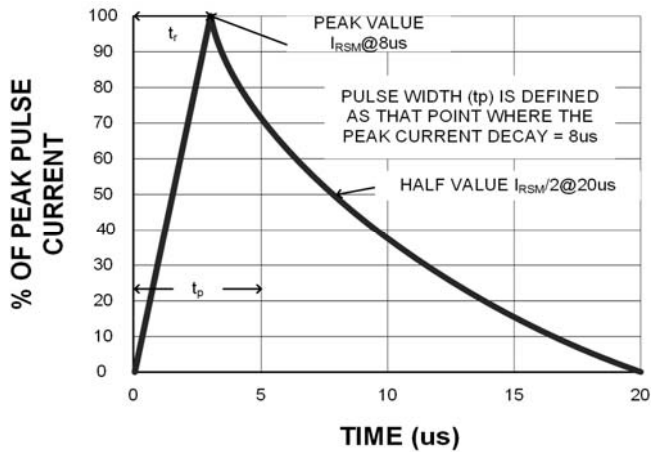


Figure 2. Power Derating Curve

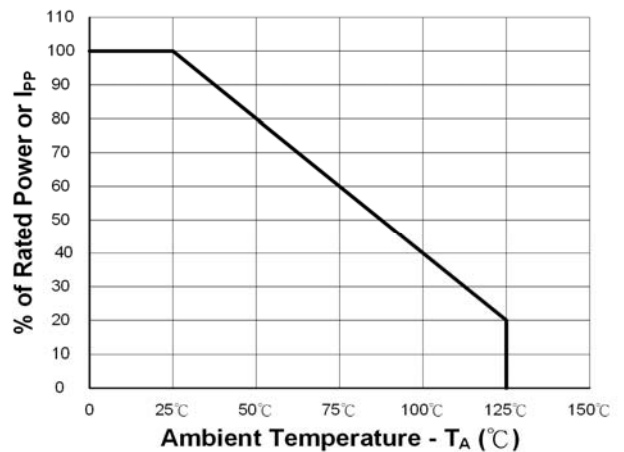
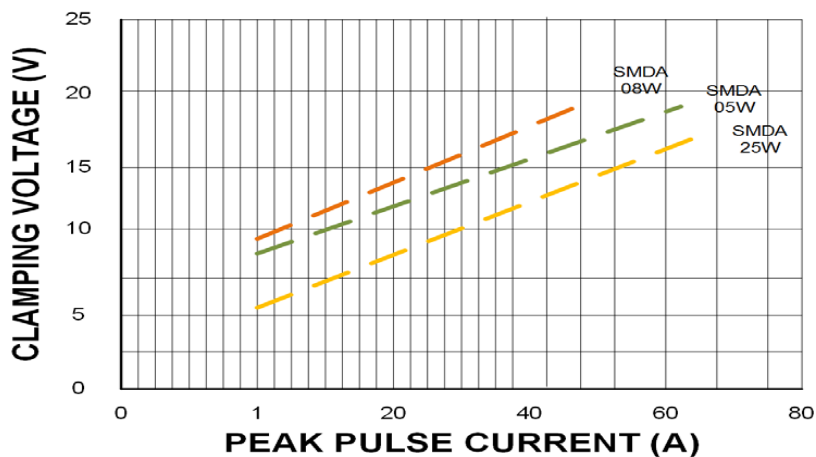


Figure 3. Clamping Voltage vs. Peak Pulse Current ($t_p=8/20 \mu\text{s}$)



TYPIC CHARACTERISTICS

Figure 4. Clamping Voltage vs. Peak Pulse Current ($t_p=8/20 \mu s$)

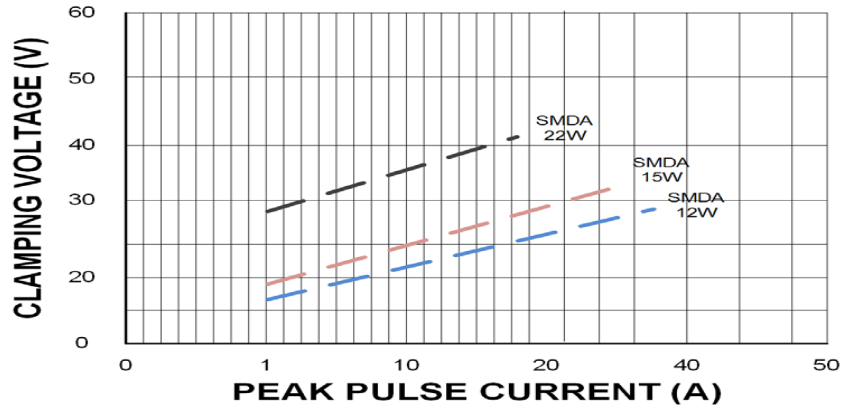


Figure 5. Typic Breakdown Voltage vs. Temperature

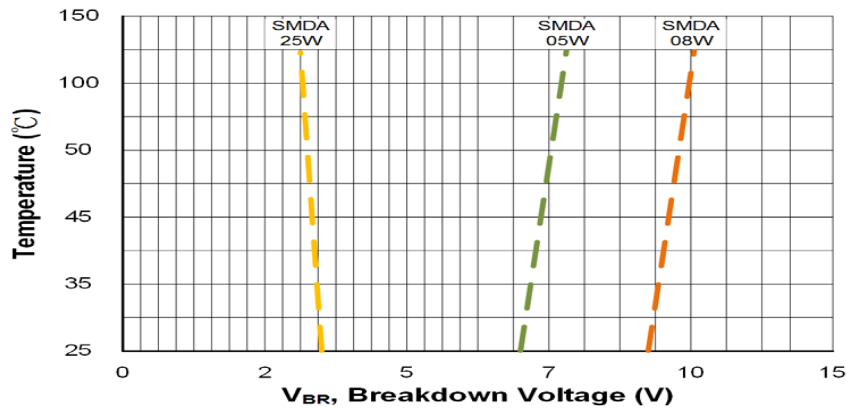
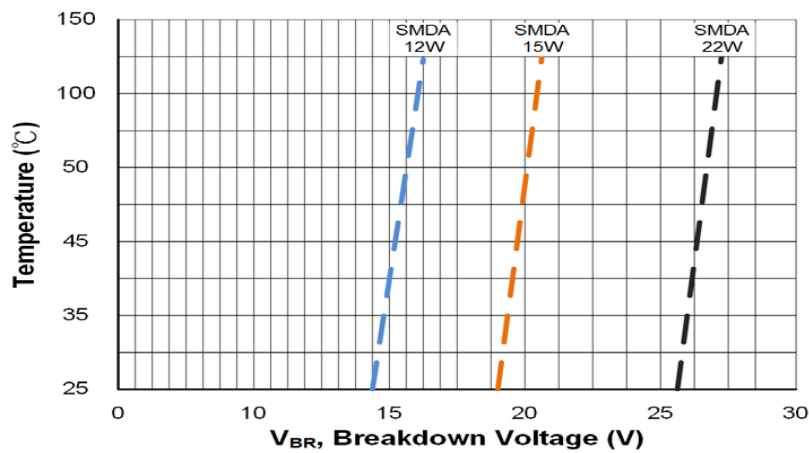
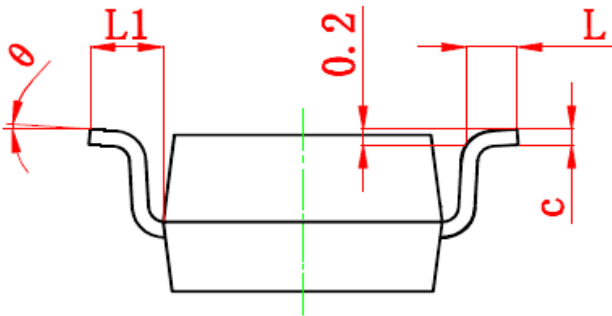
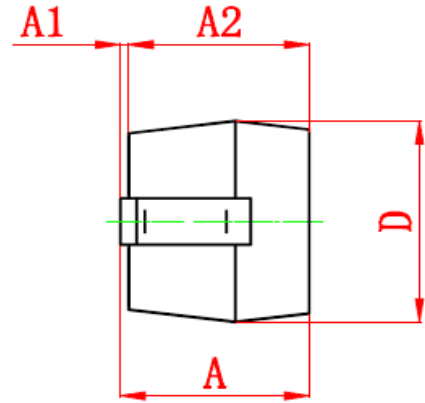
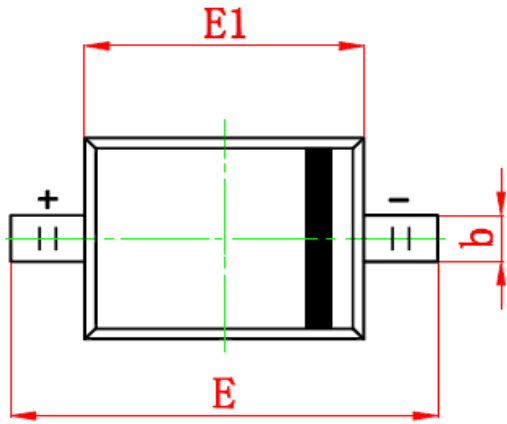


Figure 6. Typic Breakdown Voltage vs. Temperature



SOD-323 Package Outline & Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.000Max.		0.039Max.	
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	2.500	2.750	0.098	0.108
E1	1.600	1.800	0.063	0.071
L	0.250	0.400	0.010	0.016
L1	0.475 REF.		0.019 REF.	
θ	0°	8°	0°	8°