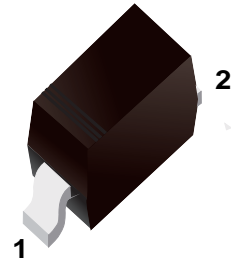
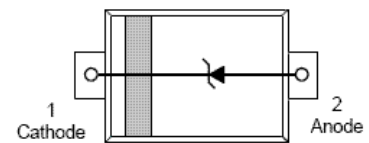


Features

1. Peak power dissipation: 56W (8/20μs)
2. Transient protection for high-speed data lines
3. IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
4. IEC61000-4-4 (EFT) 40A (5/50ns) Cable Discharge Event (CDE)
5. Package optimized for high-speed lines
6. Protects one data, control line
7. Low capacitance: 0.4pF (Typical)
8. Low clamping voltage
9. Low leakage current
10. Meets MSL 1 Requirements



■ Simplified outline(SOD-323)



Applications

1. Serial ATA
2. Desktops, Servers and Notebooks
3. Cellular Phones
4. HDMI Data Line Protection
5. USB3.0/3.1 Data Line Protection
6. Display Ports
7. Digital Visual Interfaced (DVI)

Mechanical Characteristics

1. Package: SOD-323
2. Flammability Rating: UL 94V-0
3. High temperature soldering guaranteed: 260°C/10s
4. Packaging: Tape and Reel
5. Marking: 2M

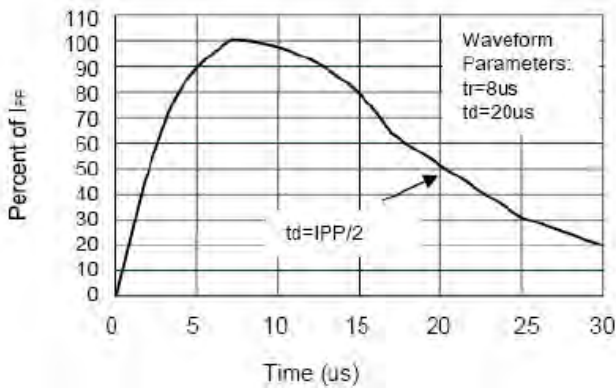
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 20	KV
ESD per IEC 61000-4-2 (Contact)		± 20	
Peak Pulse Power(8/20us)	P _{PP}	56	W
Operating Temperature	T _{OPT}	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T _L	260(10 sec.)	°C

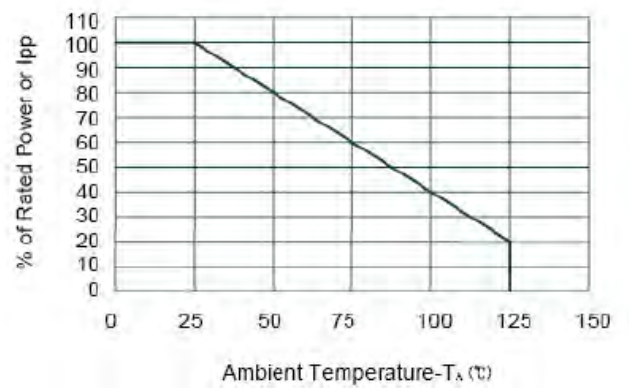
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				3.3	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	4.2			V
I_R	Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$			100	nA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			10	V
V_C	Clamping Voltage	$I_{PP} = 4\text{A}, t_p = 8/20\mu\text{s}$			14	V
C_J	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		0.40		pF

ELECTRICAL CHARACTERISTICS CURVE



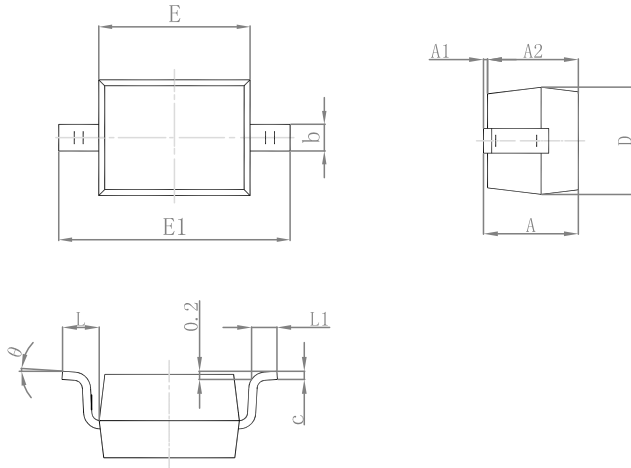
Pulse Waveform



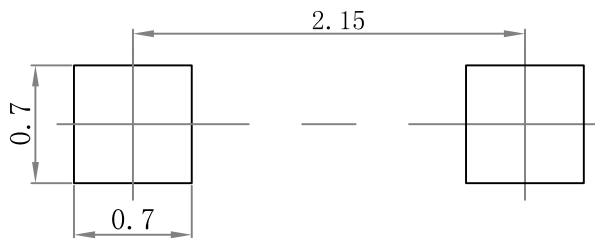
Power Derating Curve

Package Outline

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	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°



Note:

1. Controlling dimension: in/millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purposes only.

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323	Tape/Reel, 7" reel	3000	EIA-481-1