

1-Line Uni-directional TVS Diode

Features

- * 550W peak pulse power (8/20 μ s)
- * Protects one data or power line
- * Ultra low leakage : nA level
- * Operating voltage : 36V
- * Ultra low clamping voltage
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 30 kV
Contact discharge: ± 30 kV
 - IEC61000-4-5 (Lightning) 8A (8/20 μ s)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- * RoHS Compliant

Mechanical Characteristics

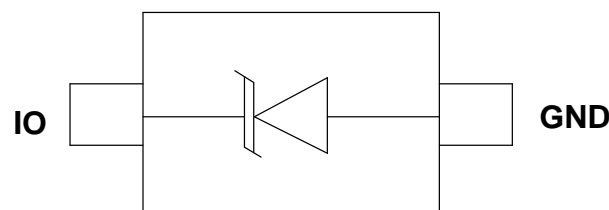
- * Package: SOD-323
- * Lead Finish: Matte Tin
- * Case Material: “Green” Molding Compound.
- * UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity: Level 3 per J-STD-020
- * Terminal Connections: See Diagram Below
- * Shipping Qty :3000 /7Inch Tape & Reel

Applications

- * Cellular Handsets and Accessories
- * Personal Digital Assistants
- * Notebooks and Handhelds
- * Portable Instrumentation
- * Peripherals
- * Pagers Peripherals
- * Desktop and Servers

Dimensions and Pin Configuration

SOD-323





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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	550	W
Peak Pulse Current (8/20µs)	IPP	8	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			36	V	
Breakdown Voltage	VBR	40			V	IT = 1mA
Reverse Leakage Current	IR			0.5	µA	VRWM = 36V
Forward Voltage	VF		0.8	1.2	V	IF=10mA
Clamping Voltage	VC			9	V	IPP = 1A (8 x 20µs pulse)
Clamping Voltage	VC		50	60	V	IPP = 8A (8 x 20µs pulse)
Junction Capacitance	CJ			75	pF	VR = 0V, f = 1MHz

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Typical Performance Characteristics (T_A=25 °C unless otherwise Specified)

Fig1. 8/20µs Pulse Waveform

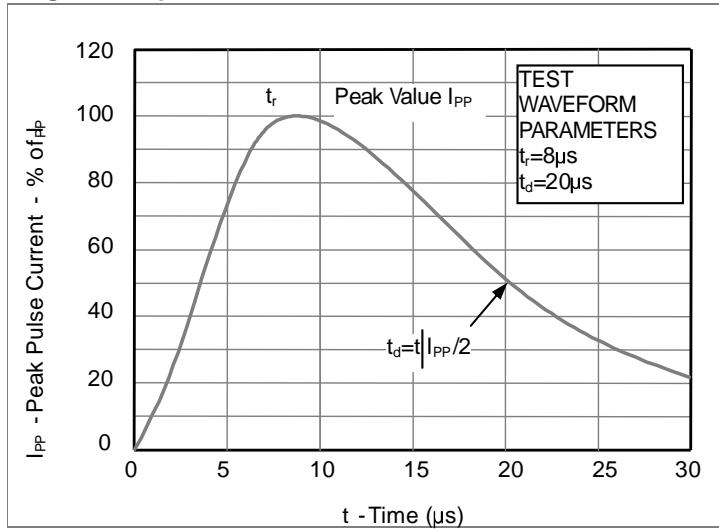


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

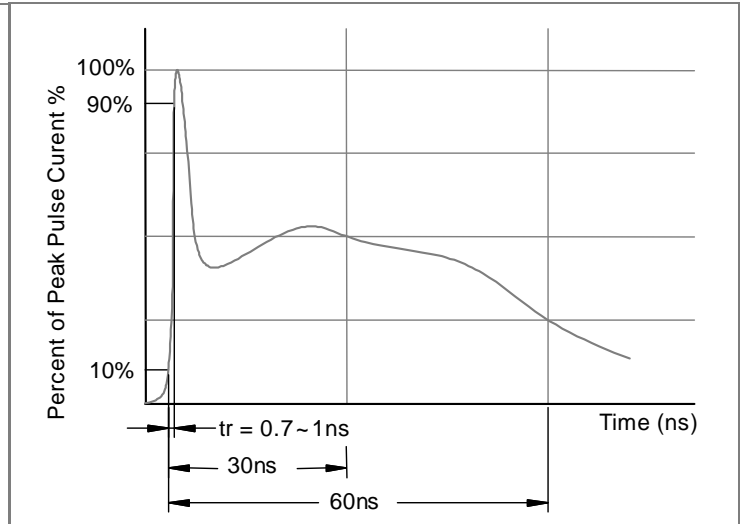
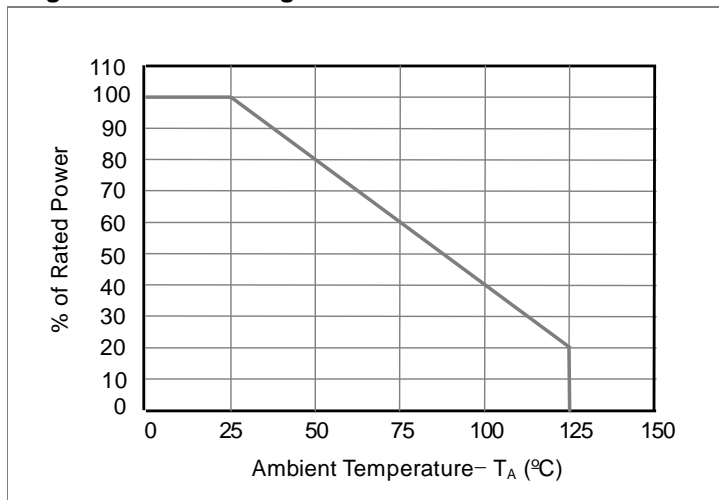
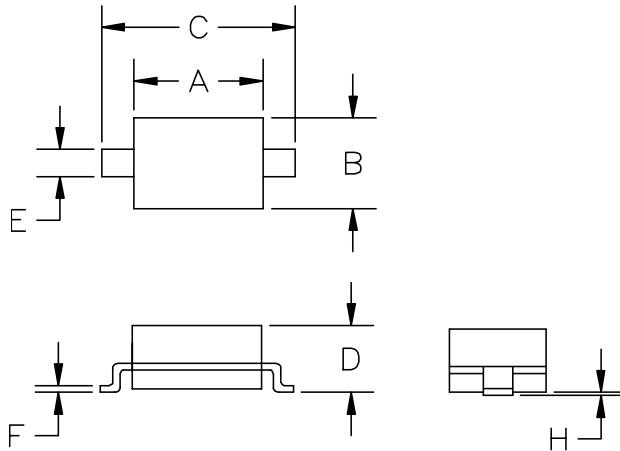


Fig3. Power Derating Curve



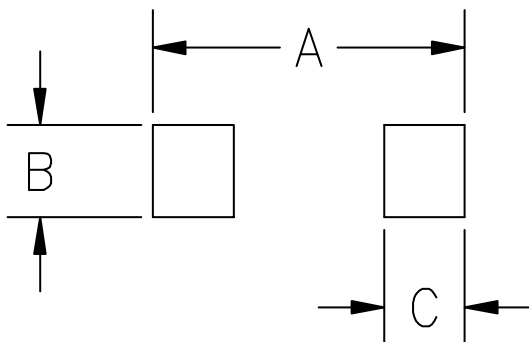
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Outline Drawing - SOD-323



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.70	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004

Land Pattern - SOD-323



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031