

Features

- * 160W peak pulse power (8/20 μ s)
- * Low operating :15V and 24V
- * Ultra low capacitance: 13 p Typ
- * Ultra low leakage: nA leel
- * Low clamping voltage
- * Protects one power line or data line
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 25 kV
Contact discharge: ± 23 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- * RoHS Compliant

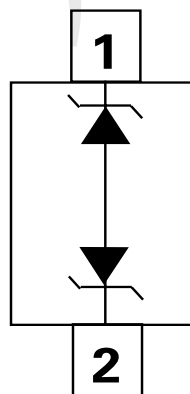
Mechanical Characteristics

- * 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

- * USB 2.0 power and data line
- * Set-top box and digital TV
- * LIN BUS
- * AEC-Q101 qualified

Dimensions and Pin Configuration



1 cathode 1 (15 V)
2 cathode 2 (24 V)

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	160	W
ESD per IEC 61000-4-2 (Air)	VESD	±25	kV
ESD per IEC 61000-4-2 (Contact)		±23	
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	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				15	V
					24	
Breakdown Voltage	VBR	IT = 1mA	17.1	18.9	20.3	V
			25.4	27.8	30.3	
Reverse Leakage Current	IR	VRWM = 15V and 24V			0.05	μA
Clamping Voltage PESD1LIN (15 V)	VC	PP = 1A (8 x 20μs pulse)			25	V
		PP = 5A (8 x 20us pulse)			44	
Clamping Voltage PESD1LIN (24 V)	VC	PP = 1A (8 x 20us pulse)			40	V
		Ipp = 3A (8 x 20us pulse)			70	
Junction Capacitance	CJ	VR = 0V, f = 1MHz		13		pF

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

Fig1. 8/20 μs Pulse Waveform

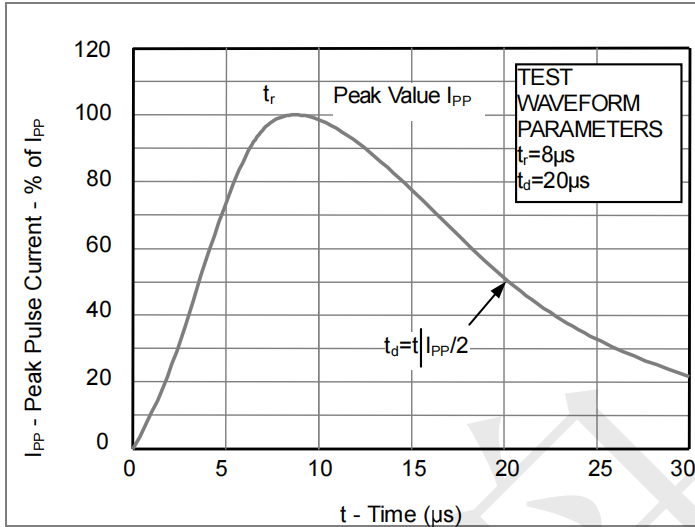


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

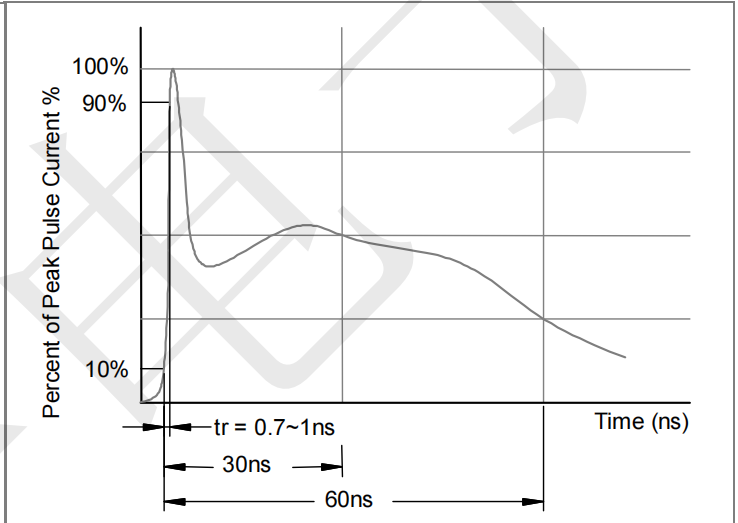
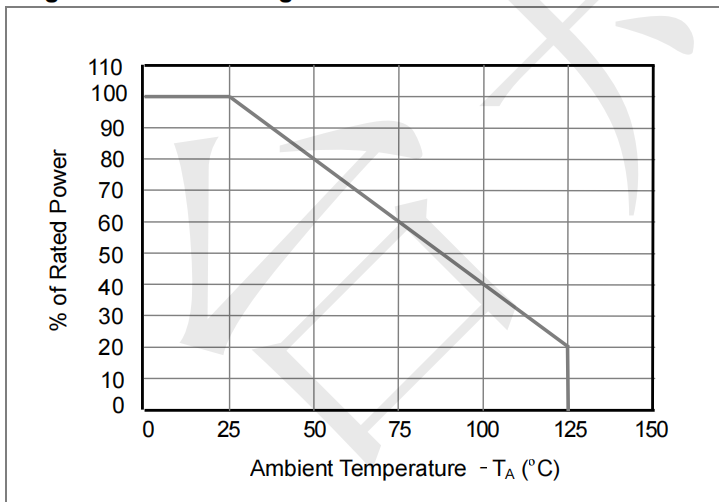
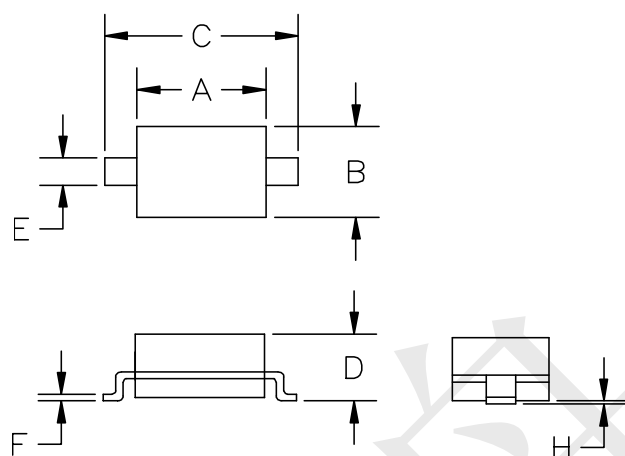


Fig3. Power Derating Curve

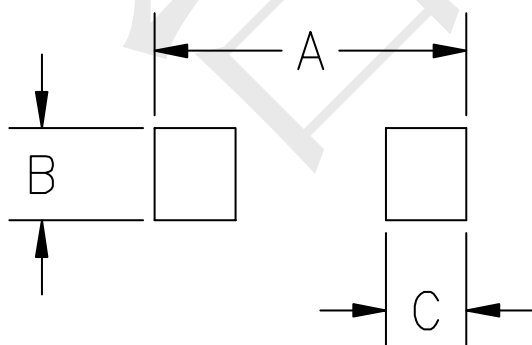


Outline Drawing - SOD-323



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