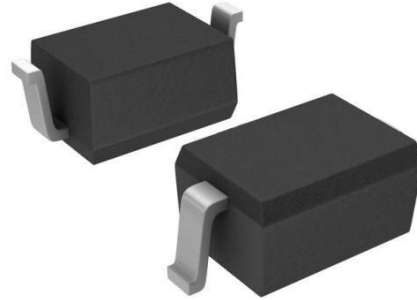




Features

- 220Watts peak pulse power ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Reverse Voltage: 15V , 24V
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 15kV$ contact $\pm 20kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)



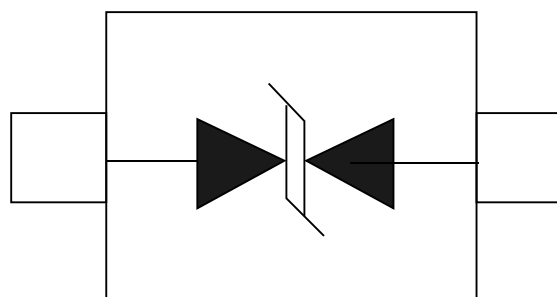
Applications

- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Pagers Peripherals

Mechanical Data

- SOD323 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



SOD-323

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	220	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	20 15	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 150	°C
Storage Temperature	T_{stg}	-55 to + 150	°C

Electrical Characteristics

<i>PIN1 to PIN2</i>						
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				15.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	16.7			V
Reverse Leakage Current	I_R	$V_{RWM} = 15V, T = 25^\circ C$			1	μA
Peak Pulse Current	I_{pp}	$t_p = 8/20\mu s$			6	V
Clamping Voltage	V_C	$I_{PP} = 6A, t_p = 8/20\mu s$		26		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		15		pF

<i>PIN2 to PIN1</i>						
Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				24.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	26.7			V
Reverse Leakage Current	I_R	$V_{RWM} = 24V, T = 25^\circ C$			1	μA
Peak Pulse Current	I_{pp}	$t_p = 8/20\mu s$			5	V
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$		44		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		15		pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

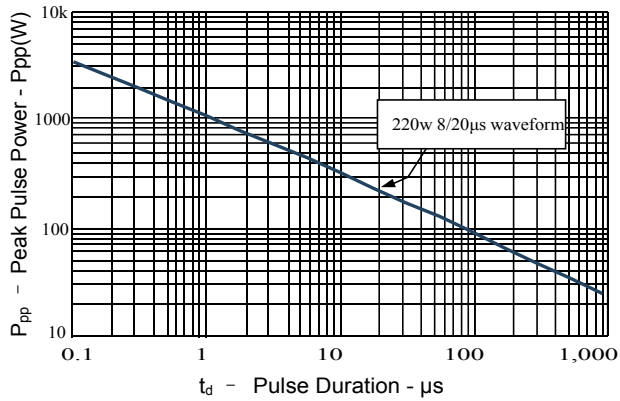


Figure 2: Power Derating Curve

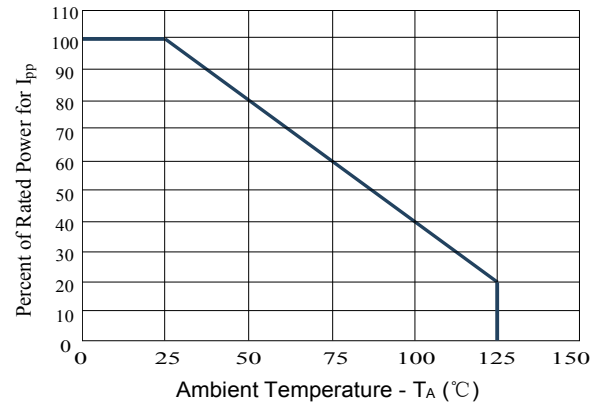


Figure3: Pulse Waveform

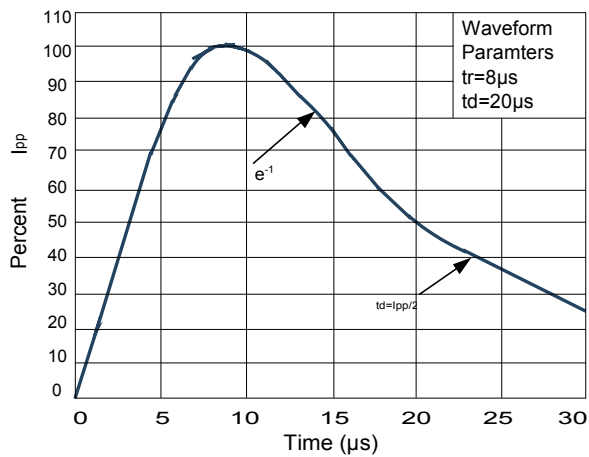
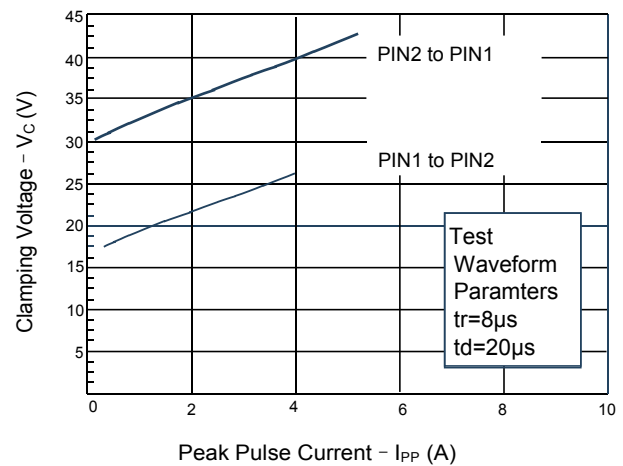
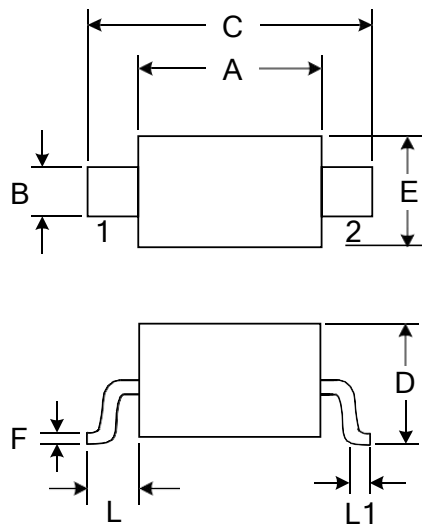


Figure 4: Clamping Voltage vs. Ipp



Outline Drawing – SOD323



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	Base qty	Delivery mode
SES1524D3	SOD323	3000	Tape and reel