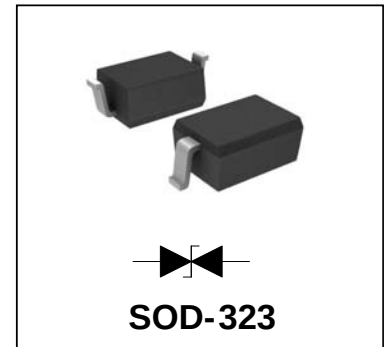


Features

- 400Watts peak pulse power ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 μs)



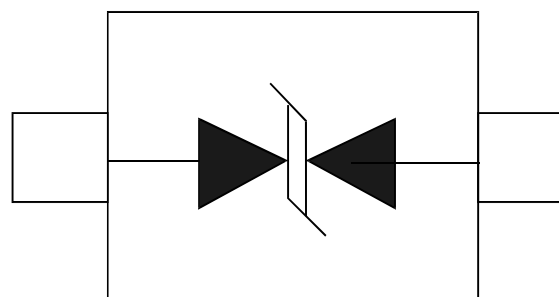
Applications

- 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



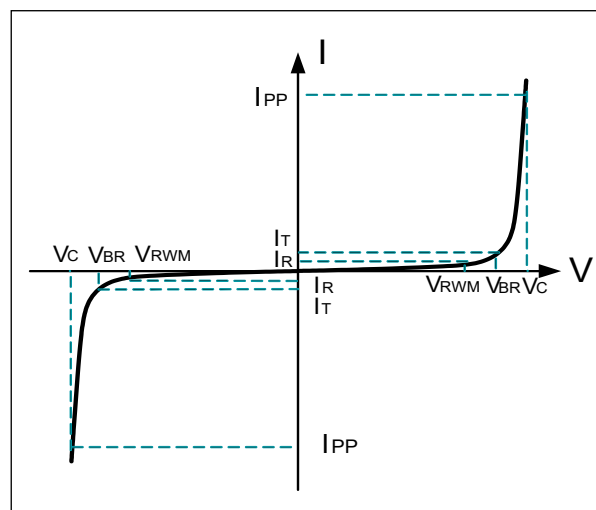
SOD-323

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	400	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	6	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 150	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 150	$^{\circ}C$

Electrical Parameters (T=25 $^{\circ}C$)

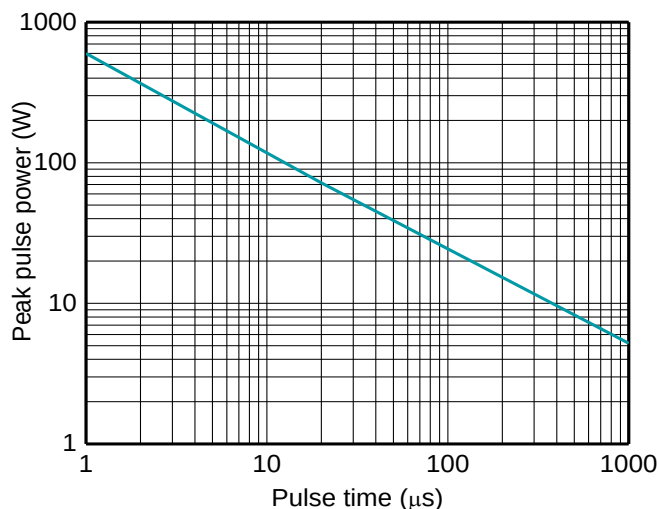
Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T



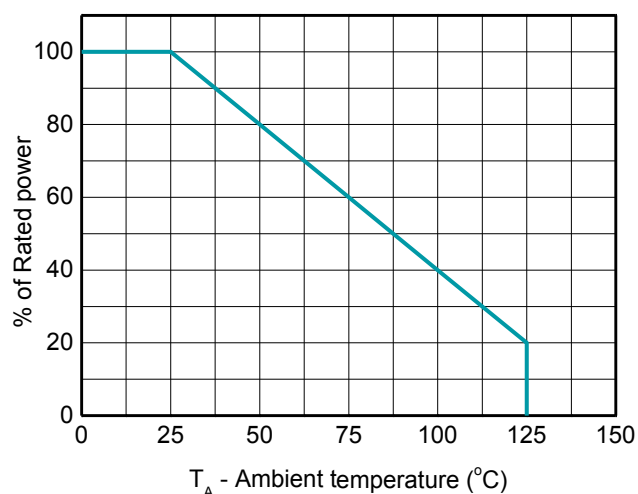
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				36	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	40		45	V
Reverse Leakage Current	I_R	$V_{RWM} = 36V, T = 25^{\circ}C$			0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			6	A
Clamping Voltage	V_C	$I_{PP} = 6A, t_p = 8/20\mu s$			65	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		30	45	pF

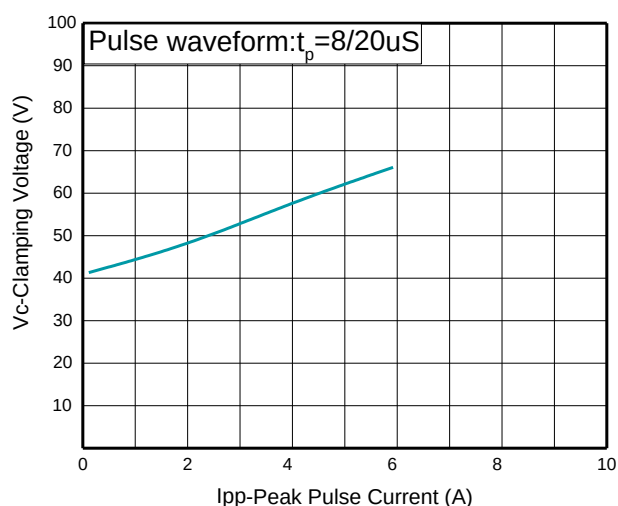
Typical Characteristics



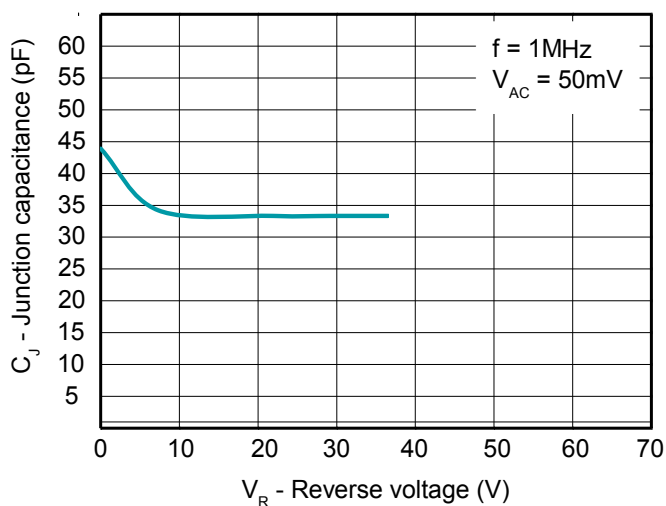
Non-repetitive peak pulse power vs. Pulse time



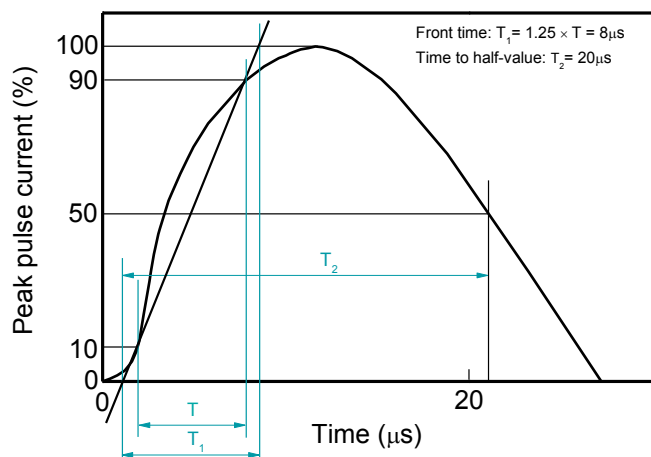
Power derating vs. Ambient temperature



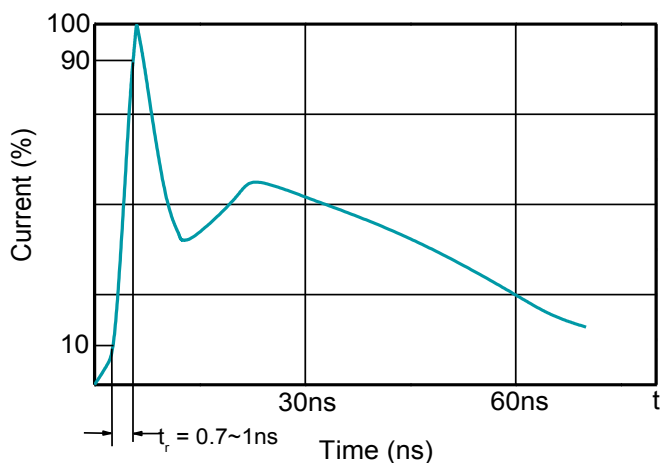
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage

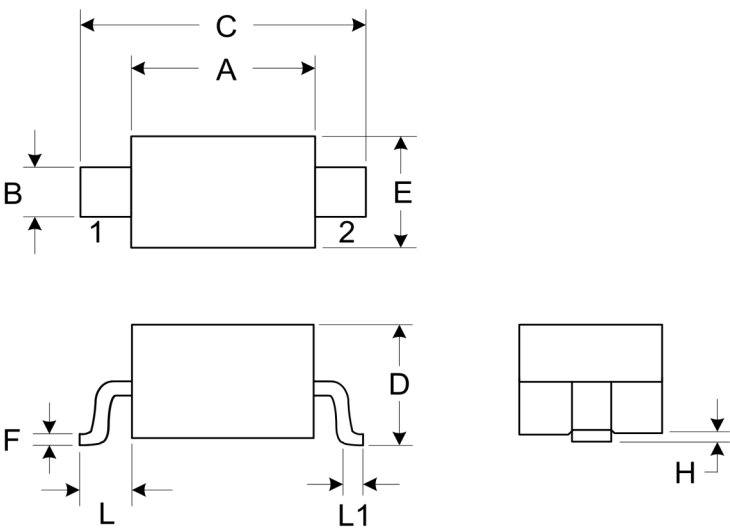
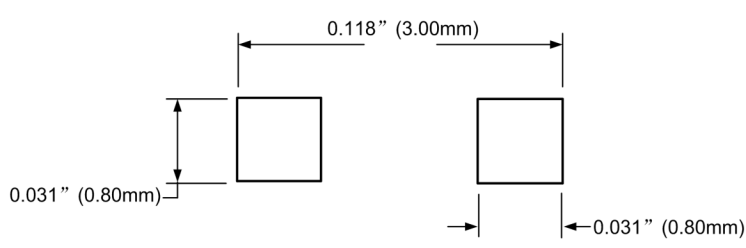


8/20μs waveform per IEC61000-4-5

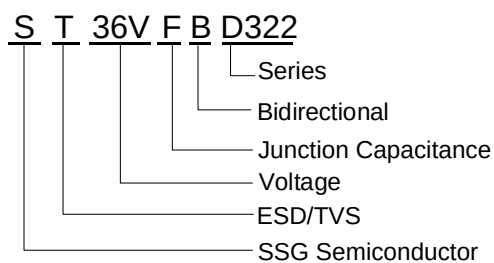


Contact discharge current waveform per IEC61000-4-2

Outline Drawing – SOD-323

PACKAGE OUTLINE 	 DIMENSIONS <table><tr><th rowspan="2">SYMBOL</th><th colspan="2">MILLIMETER</th><th colspan="2">INCHES</th></tr><tr><th>MIN</th><th>MAX</th><th>MIN</th><th>MAX</th></tr><tr><td>A</td><td>1.60</td><td>1.80</td><td>0.063</td><td>0.071</td></tr><tr><td>B</td><td>0.25</td><td>0.35</td><td>0.010</td><td>0.014</td></tr><tr><td>C</td><td>2.50</td><td>2.70</td><td>0.098</td><td>0.106</td></tr><tr><td>D</td><td>0.00</td><td>1.00</td><td>0.000</td><td>0.039</td></tr><tr><td>E</td><td>1.20</td><td>1.40</td><td>0.047</td><td>0.055</td></tr><tr><td>F</td><td>0.08</td><td>0.15</td><td>0.003</td><td>0.006</td></tr><tr><td>L</td><td colspan="2">0.475 REF</td><td colspan="2">0.019REF</td></tr><tr><td>L1</td><td>0.25</td><td>0.40</td><td>0.010</td><td>0.016</td></tr><tr><td>H</td><td>0.00</td><td>0.10</td><td>0.000</td><td>0.004</td></tr></table>	SYMBOL	MILLIMETER		INCHES		MIN	MAX	MIN	MAX	A	1.60	1.80	0.063	0.071	B	0.25	0.35	0.010	0.014	C	2.50	2.70	0.098	0.106	D	0.00	1.00	0.000	0.039	E	1.20	1.40	0.047	0.055	F	0.08	0.15	0.003	0.006	L	0.475 REF		0.019REF		L1	0.25	0.40	0.010	0.016	H	0.00	0.10	0.000	0.004
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MOUNTING PAD 	Notes 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs.																																																						

Part Numbering System



Device	Package	Shipping	MarKing	Parameter
ST36VFBD322	SOD-323	3000/Tape&Reel	36 *	36 = Product Code B = Device Code