

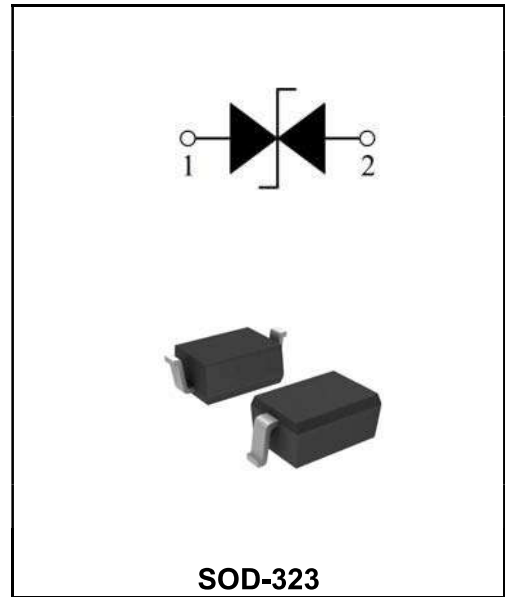
**Transient Voltage Suppressor**

**Features**

- ◆300 Watts Peak Pulse Power per Line (tp= 8/20μs)
- ◆Replacement for MLV (0805)
- ◆Protects one I/O or power line
- ◆Low Clamping Voltage
- ◆Working Voltage: 3.3 V
- ◆Low Leakage Current
- ◆Response Time is Typically < 1 ns
- ◆IEC 61000-4-2 ( ESD ) ±30 KV contact ±30 KV Air
- ◆IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆IEC 61000-4-5 (Lightning 8/20μs): 25A

**Application**

- ◆Laptop Computers
- ◆Cellular Phones
- ◆Digital Cameras
- ◆Personal Digital Assistants (PDAs)



**Order Information**

Part Number	Package	Marking	Size (mm)	Delivery Form	Delivery Quantity
ESD3V3FBD323	SOD-323	03B	2.6X1.3X0.5	7" T&R	3000PCS/Tape

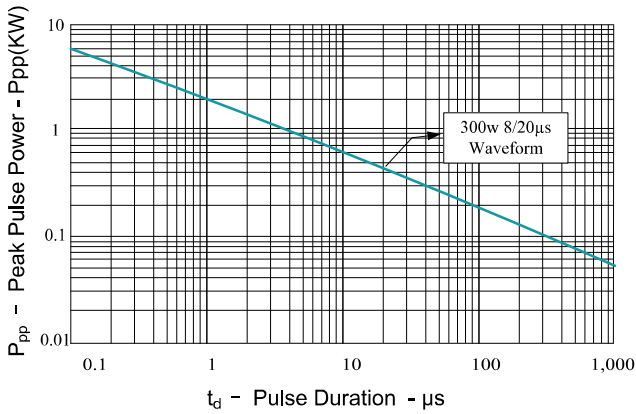
**Limiting Values(TA = 25 °C, unless otherwise specified)**

Symbol	Parameter	Conditions	value	Unit
P <sub>PP</sub>	Peak Pulse Power	tP = 8/20 μs	300	W
I <sub>PPM</sub>	Rated Peak Pulse Current	tP = 8/20 μs	25	A
T <sub>J</sub>	Junction Temperature	-	-55 to+125	°C
T <sub>stg</sub>	Storage Temperature Range	-	-55 to+125	°C

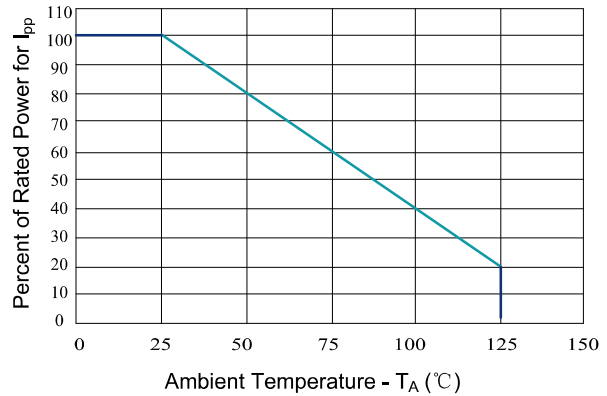
**Electrical Characteristics(TA = 25 °C unless otherwise specified)**

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V <sub>RWM</sub>	Reverse Stand-Off Voltage		-	-	3.3	V
V <sub>BR</sub>	Breakdown Voltage	IT = 1mA	3.4	-	5	V
I <sub>R</sub>	Reverse Leakage Current	VRWM = 3.3 V; TA = 25 °C	-	-	0.5	uA
V <sub>C</sub>	Clamping Voltage	IPP=1 A, tP =8/20μs	-	-	7.5	V
V <sub>C</sub>	Clamping Voltage	IPP=25 A, tP =8/20μs	-	9	12	V
C <sub>J</sub>	Junction Capacitance	VR = 0V, f = 1 MHz	-	30	-	pF

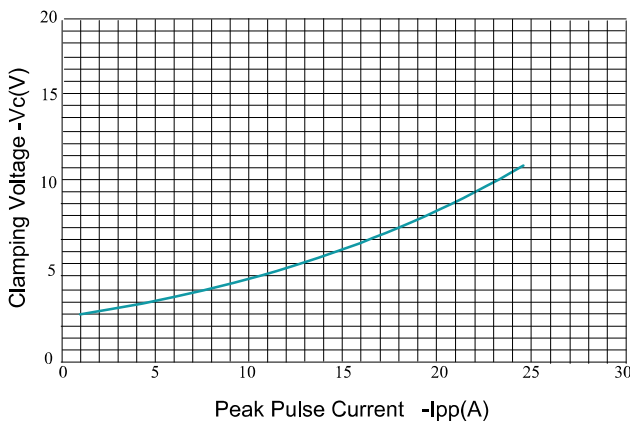
Typical Characteristics



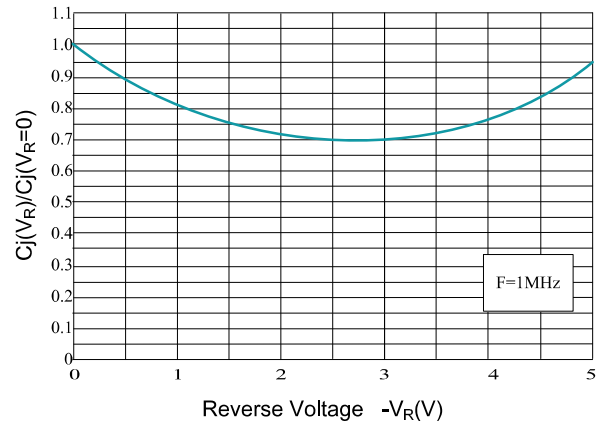
**Fig.1 Peak Pulse Power vs. Pulse**



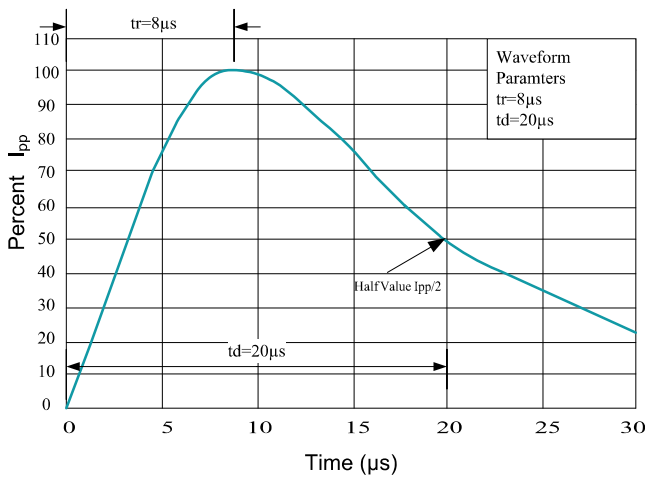
**Fig.2 Power Derating**



**Fig.3 Clamping Voltage vs. Peak Pulse Current Figure**



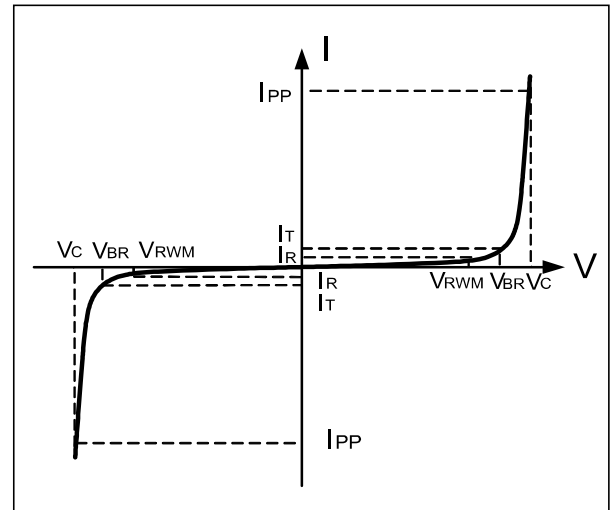
**Fig. 4 Normalized Junction Capacitance vs. Reverse Voltage**



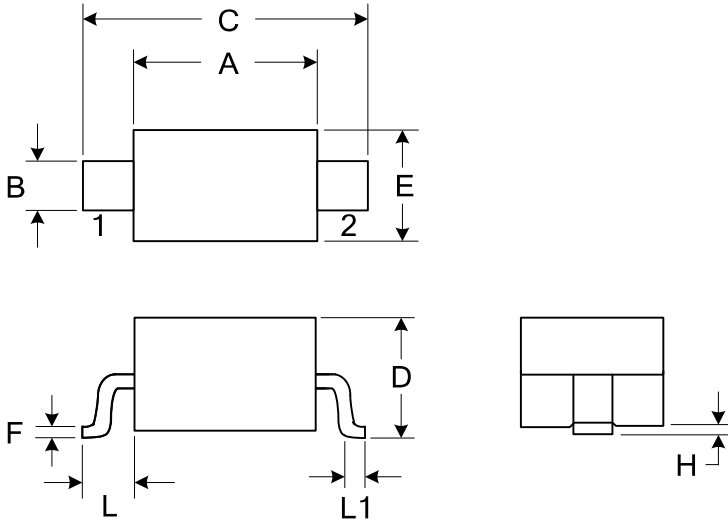
**Fig.5 Pulse Waveform**

**Electrical Parameters (T=25°C)**

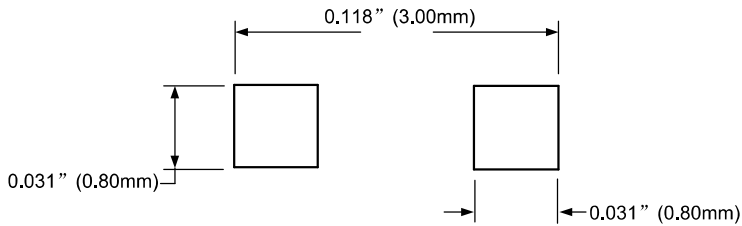
Symbol	Parameter
$I_{PP}$	Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



**PACKAGE OUTLINE**



**MOUNTING PAD**



**SOD-323**

**DIMENSIONS**

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

**Notes**

1. Controlling Dimensions in Millimeters.
2. Dimensions are exclusive of mold flash and metal burrs.