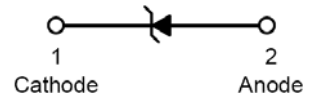
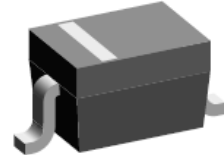




## STANDARD CAPACITANCE TVS

### Features

- Small SOD-323 Package
- Unidirectional Configurations
- Peak Power Dissipation 800W @8 x 20 us Pulse
- Low Leakage
- Fast Response Time < 1 ns
- Protects One Power or I/O Port
- ESD Protection to IEC 61000-4-2 Level 4, 15KV(Air), 8KV(Contact)
- ESD Protection to IEC 61000-4-2 Level 4, 30A
- 16KV Human Body Model ESD Requirements
- RoHS Compliant in Lead-Free Versions



### Applications

- Cell Phone Handsets and Accessories
- Microprocessor Based Equipment
- Personal Digital Assistant (PDA)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Pagers Peripherals

### Absolute Maximum Ratings

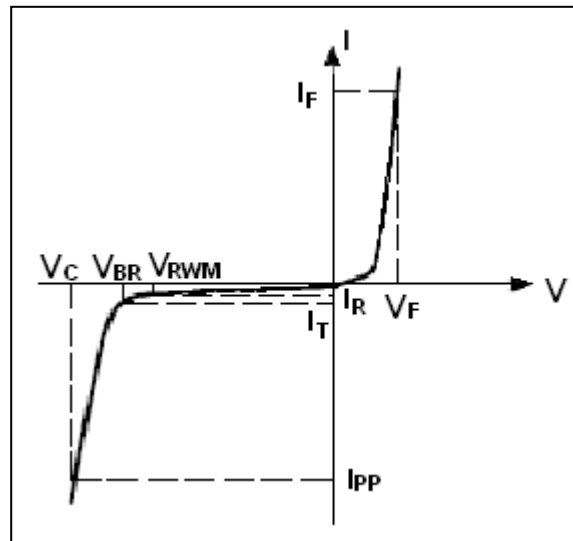
Parameter	Symbol	Value	Units	
Peak Power Dissipation (Note 1.) @T <sub>L</sub> = 25°C	P <sub>PK</sub>	800	W	
IEC 61000-4-2 (ESD)	Air CONTACT	±15	KV	
		±8.0	KV	
IEC 61000-4-4 (EFT)		30	A	
ESD Voltage	Per Human Body Model	V <sub>PP</sub>	16	KV
Storage Temperature Range	T <sub>STG</sub>	-55 to 150	°C	
Operating Junction Temperature Range	T <sub>J</sub>	-55 to 150	°C	

1. 8 X 20 us, non-repetitive

**Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

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

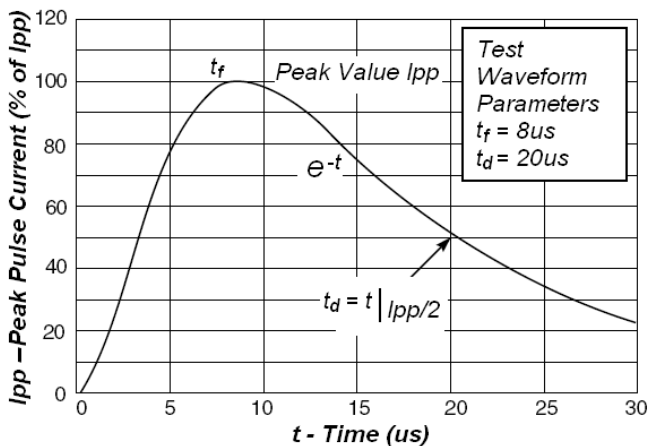


**Electrical Characteristics** Ratings at 25°C ambient temperature unless otherwise specified.

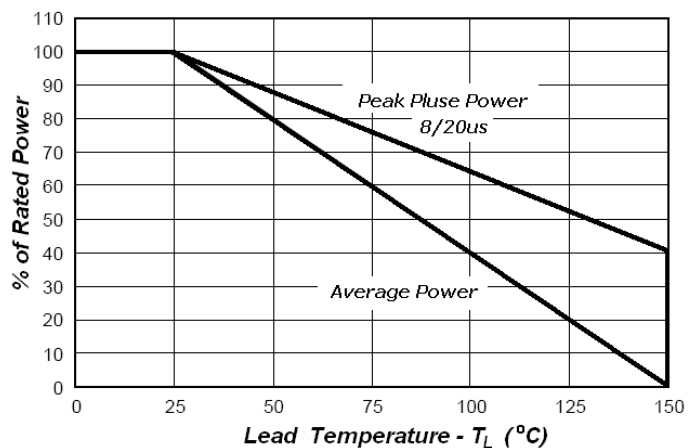
Device	$V_{RWM}$ (V)	$I_R$ (uA) @ $V_{RWM}$	$V_{BR}$ (V) @ $I_T$ (Note 1)		$I_T$	$V_C$ (V) @ $I_{PP}=5 A^*$	$V_C$ (V) @ Max $I_{PP}^*$	$I_{PP}$ (A)*	C@OV 1MHz (pF)
	Max	Max	Min	Max	mA	Typ	Max	Max	Typ
SD05H	5.0	10	6.2	7.3	1.0	9.8	25	40	250

\*Surge current waveform per Figure 1.

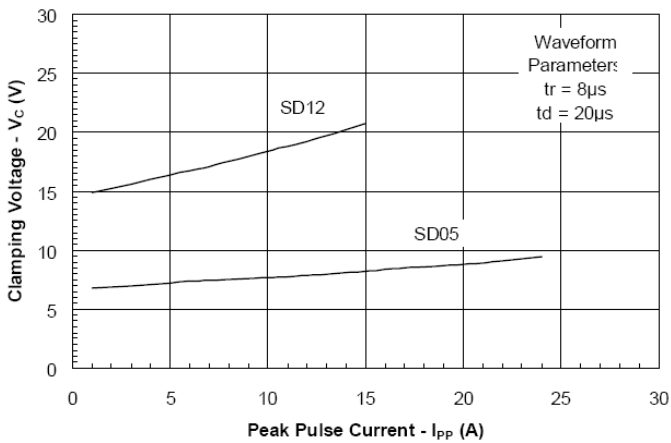
- $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C.



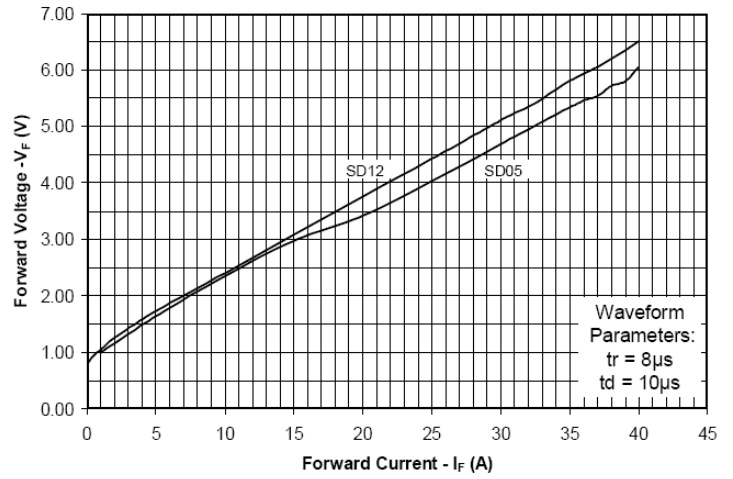
**Fig1. Pulse Waveform**



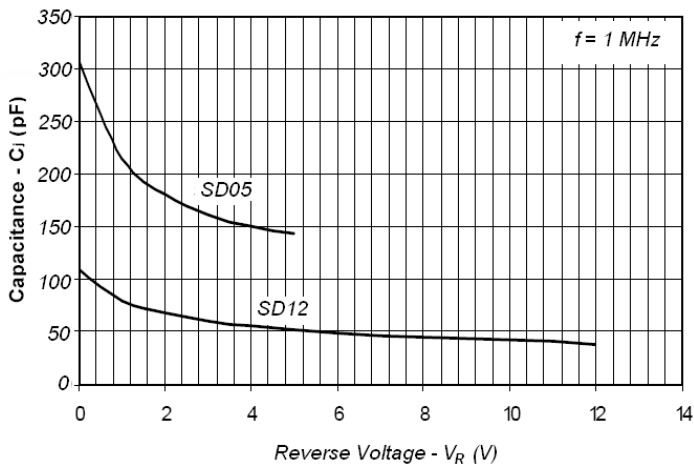
**Fig2. Power Derating**



**Fig3. Clamping Voltage vs. Peak Pulse Current**



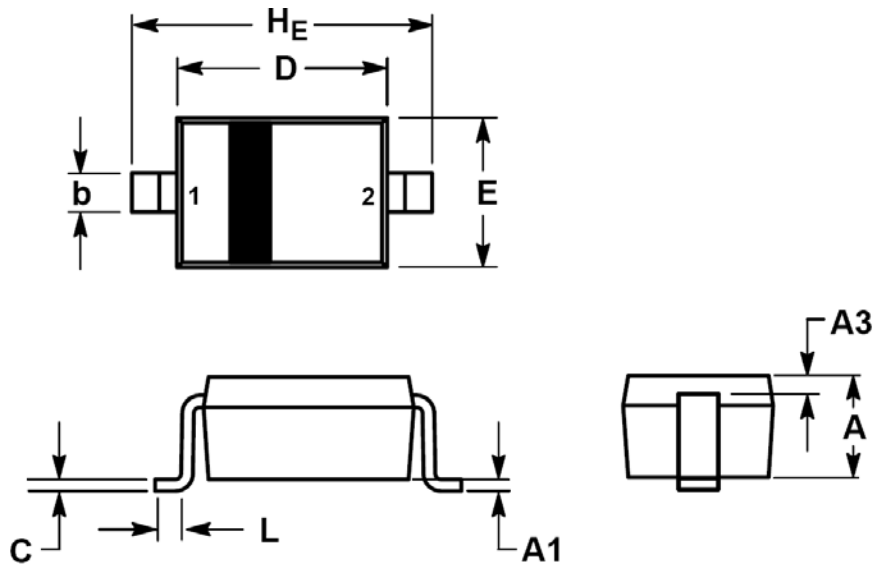
**Fig4. Forward Voltage vs. Forward Current**



**Fig5. Capacitance vs. Reverse Voltage**

## Package Dimensions

## SOD-323



Dim	Millimeters			Inches		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.080	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.063	0.066	0.071
E	1.15	1.25	1.40	0.045	0.049	0.055
L	0.08			0.003		
$H_E$	2.30	2.50	2.70	0.090	0.098	0.106