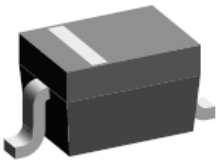
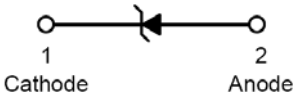
SD05H

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(Contanct)
- 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 Equiment
- Personal Digital Assistant (PDA)
- Notebooks, Destops, and Servers
- Portable Instrumentation
- Pagers Periherals

Absolute Maximum Ratings

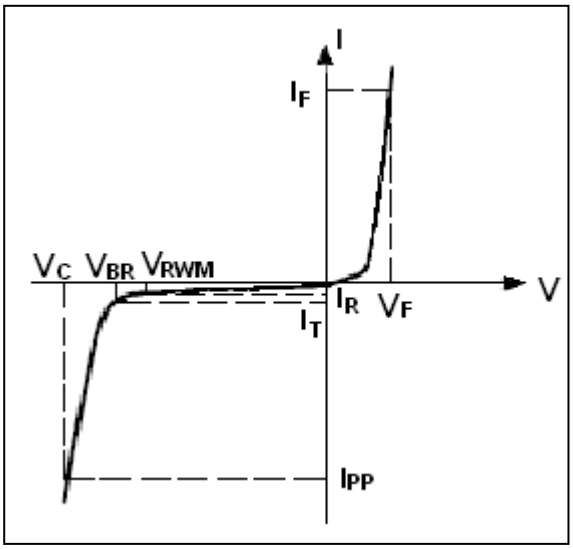
Parameter	Symbol	Value	Units
Peak Power Dissipation (Note 1.) @T_L = 25°C	P_{PK}	800	W
IEC 61000-4-2 (ESD) Air		±15	KV
CONTACT		±8.0	KV
IEC 61000-4-4 (EFT)		30	A
ESD Voltage Per Human Body Model	V_{PP}	16	KV
Storage Temperature Range	T_{STG}	-55 to 150	°C
Operating Junction Temperature Range	T_J	-55 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.

1. V_{BR} is measured with a pluse test current I_T at an ambient temperature of 25℃.

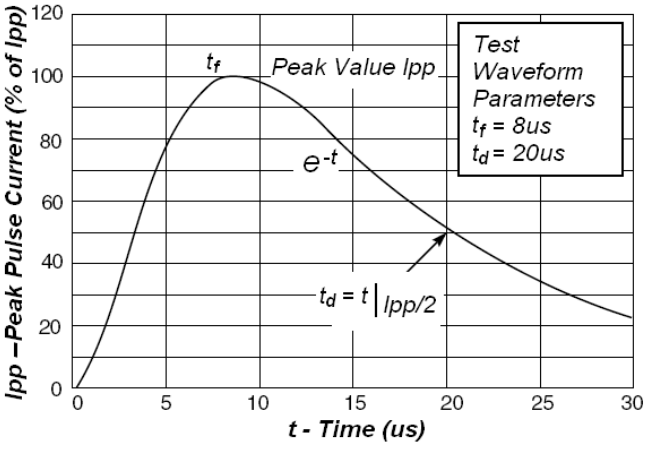


Fig1. Pulse Waveform

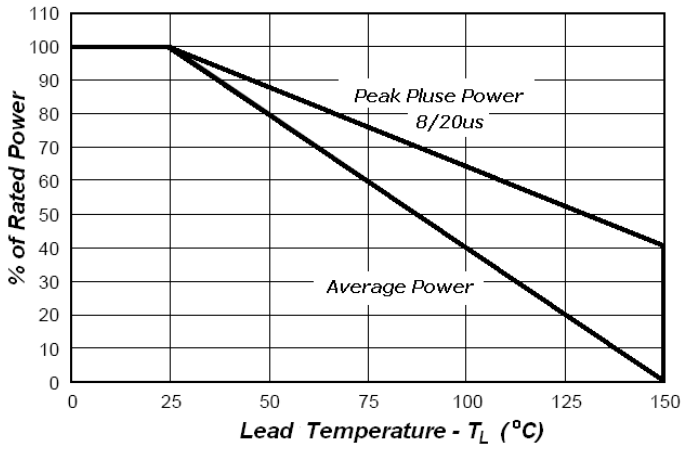


Fig2. Power Derating

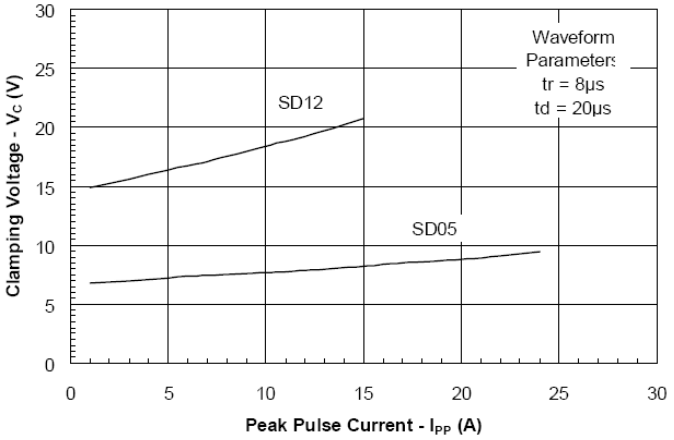


Fig3. Clamping Voltage vs. Peak Pulse Current

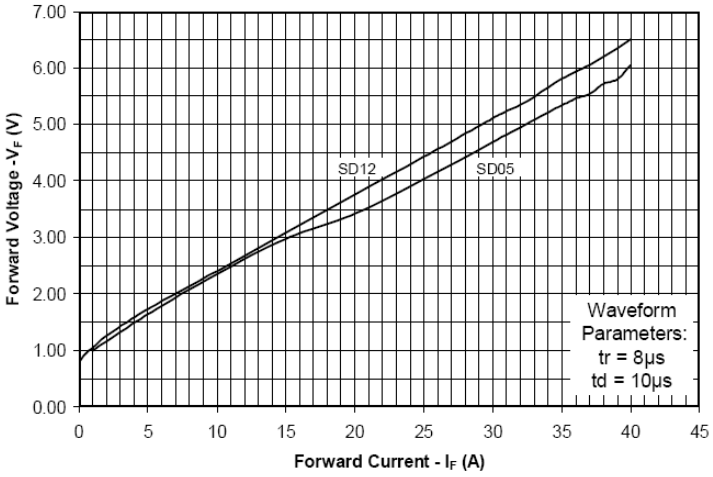


Fig4. Forward Voltage vs.Forward Current

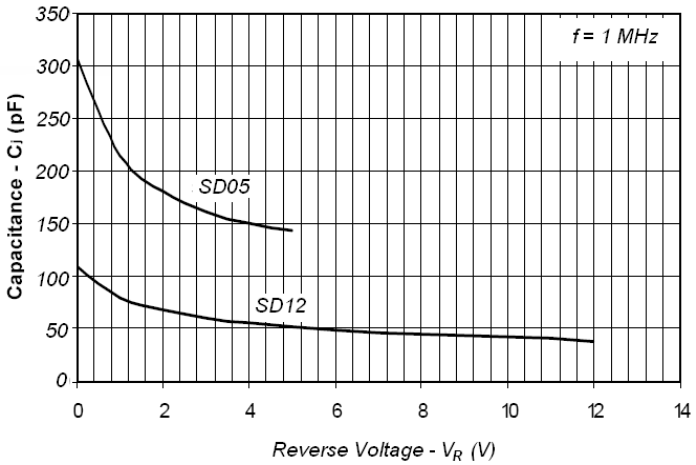
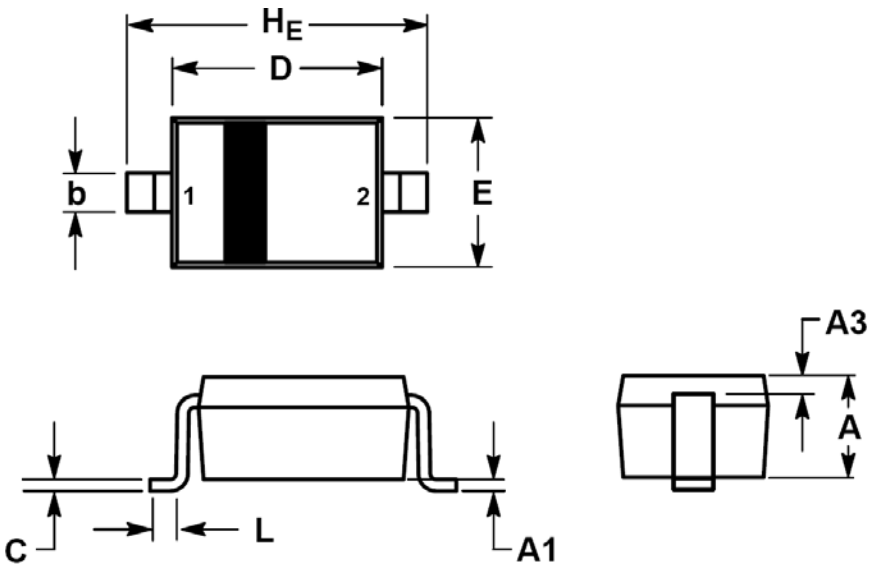


Fig5.Capacitance vs. Revere Voltage

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