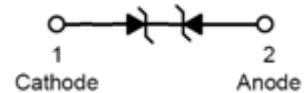
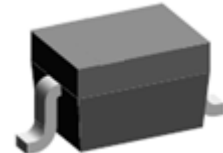




**STANDARD CAPACITANCE TVS**

**Features**

- Small SOD-323 Package
- Unidirectional Configurations
- Peak Power Dissipation 350W @8 x 20 us Pulse
- Low Leakage
- Fast Response Time < 5 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>	350	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 <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	

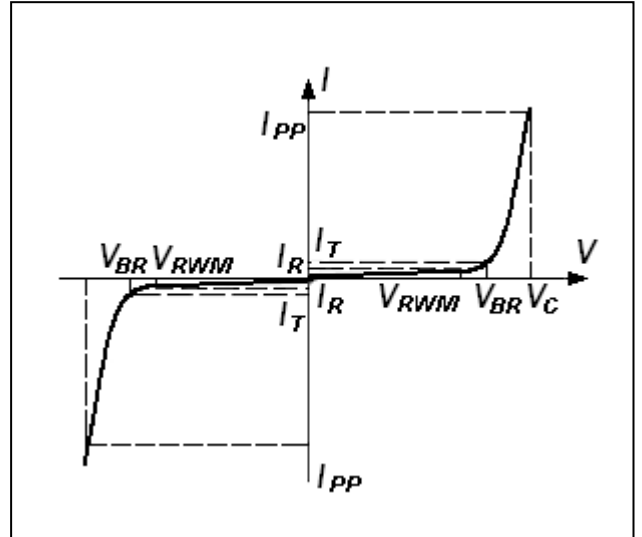
1. 8 X 20 us, non-repetitive

# SD05C SERIES

## 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 @ $I_T$



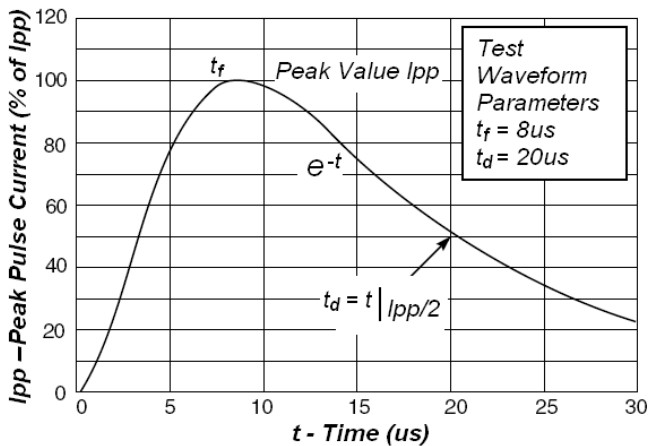
## Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

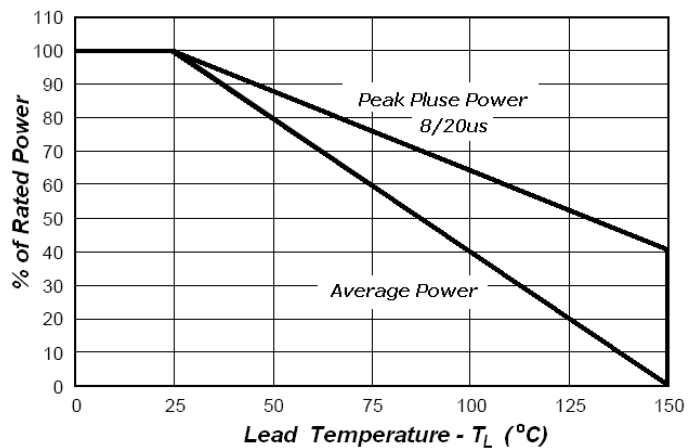
Device	$V_{RWM}$ (V)	$I_R$ ( $\mu$ A) @ $V_{RWM}$	$V_{BR}$ (V) @ $I_T$ (Note 1)		$I_T$	$V_C$ (V) @ $I_{PP}=5$ A*	$V_C$ (V) @ Max $I_{PP}$ *	$I_{PP}$ (A)*
	Max	Max	Min	Max	mA	Typ	Max	Max
SD03C	3.0	10	4.0	6.1	1.0	9.0	13.3	20
SD05C	5.0	10	6.2	7.3	1.0	9.8	14.5	20
SD12C	12	1.0	13.3	15.75	1.0	19	25	12

\*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**

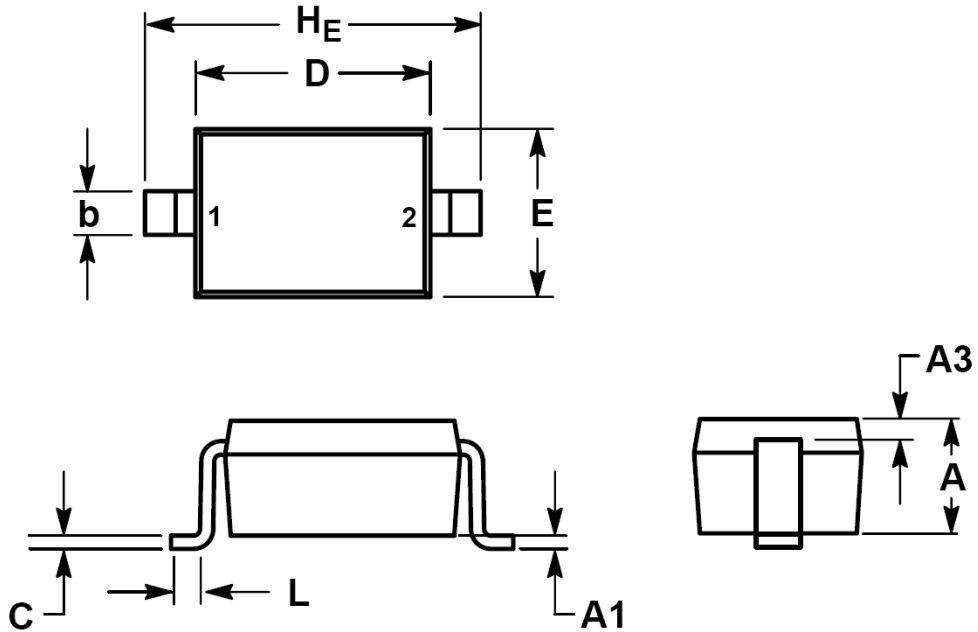


**Fig2. Power Derating**

# SD05C SERIES

## 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