

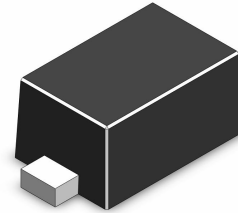
Transient Voltage Suppressors for ESD Protection

SE05D5B01GK

Features

- ◆ Working voltage: 5.0V
- ◆ Low leakage current: 0.1 μ A @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

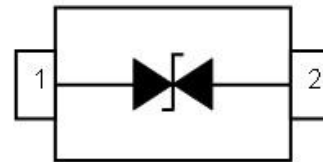
SOD-523



Applications

- ◆ Serial and Parallel Ports
- ◆ Note books, Desktops, Servers
- ◆ Projection TV

Pin Configuration



Mechanical Characteristics

- ◆ SOD-523 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Quantity Per Reel : 5,000pcs
- ◆ Reel Size : 7 inch

Absolute Maximum Rating

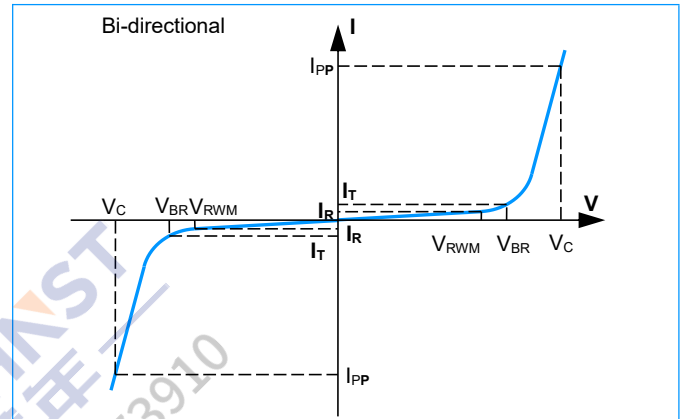
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	150	$^{\circ}$ C
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}$ C
V_{ESD}	ESD per IEC61000-4-2 (Air)	\pm 30	kV
	ESD per IEC61000-4-2 (Contact)	\pm 30	

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I-V Curve Characteristics

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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Electrical Characteristics (@ $T_A=25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	5.0	V
V_{BR}	$I_T = \pm 1\text{mA}$	7.0	--	--	V
I_R	$V_{RWM} = \pm 5\text{V}, T=25^\circ\text{C}$	--	--	0.1	μA
V_C	$I_{PP} = \pm 4\text{A}, t_p = 8/20\mu\text{s}$	--	21	--	V
C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	--	0.35	--	pF

Characteristic Curves

Fig1. Pulse Waveform

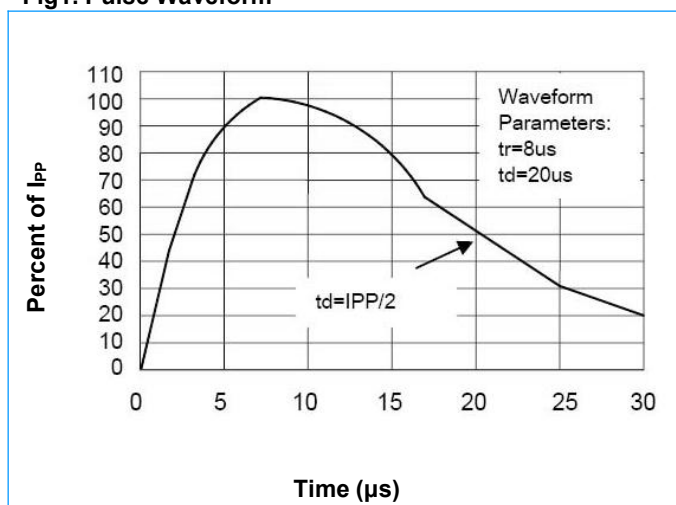
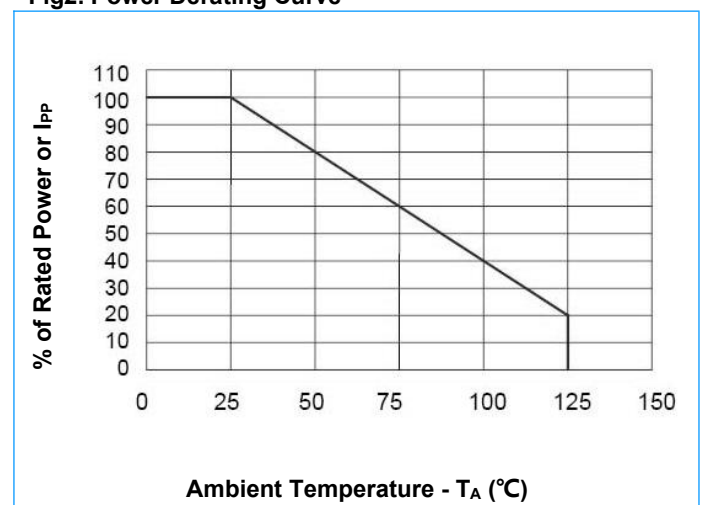


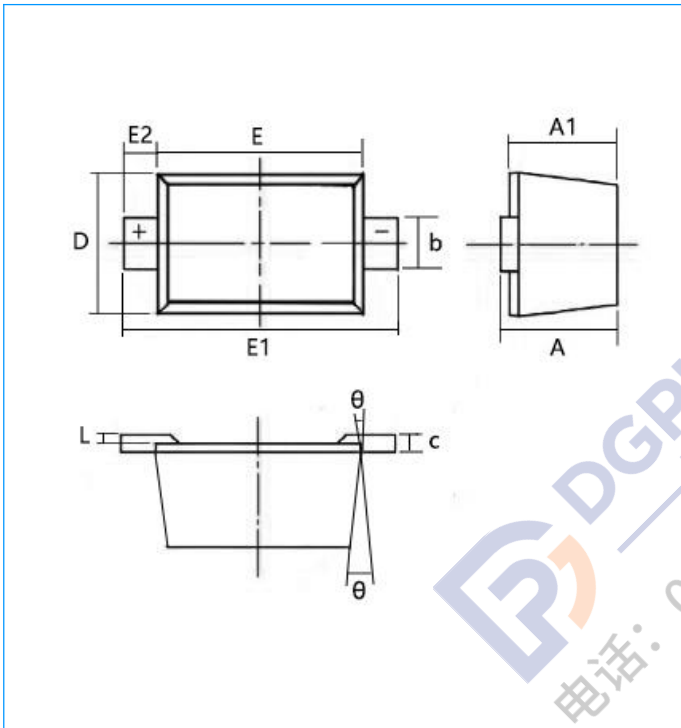
Fig2. Power Derating Curve



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SOD-523 Package Outline & Dimensions



Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.51	--	0.77	0.020	--	0.031
A1	0.50	--	0.70	0.020	--	0.028
b	0.25	--	0.35	0.010	--	0.014
c	0.08	--	0.15	0.003	--	0.006
D	0.75	--	0.85	0.030	--	0.033
E	1.10	--	1.30	0.043	--	0.051
E1	1.50	--	1.70	0.059	--	0.067
E2	0.20 REF			0.008 REF		
L	0.01	--	0.07	0.001	--	0.003
θ	7° REF			7° REF		

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