

Transient Voltage Suppressors for ESD Protection

SE05D3W11GZ

Features

- ◆ Working voltage : 5V
- ◆ Low leakage current: 1.0 μ A @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

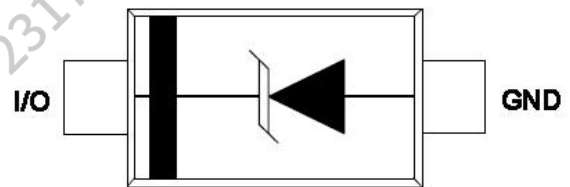
SOD-323



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers

Pin Configuration



(Top View)

Mechanical Characteristics

- ◆ SOD-323 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Marking Code: 05W

Absolute Maximum Rating

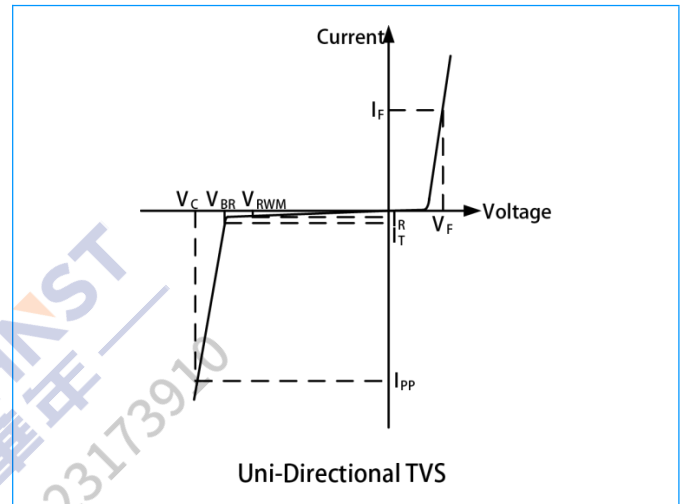
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	260 (10sec)	$^{\circ}$ C
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}$ C
T_{OPT}	Operating Temperature Range	-55 to +125	$^{\circ}$ C
V_{ESD}	ESD per IEC 61000-4-2(Air)	\pm 30	KV
	ESD per IEC 61000-4-2 (Contact)	\pm 30	

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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
I_F	Forward Current
V_F	Forward Voltage @ I_F



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

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	5	V
I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$	--	0.01	1	μA
V_{BR}	$I_T = 1\text{mA}$	6	--	8	V
V_C	$I_{PP}=25\text{A}, t_p=8/20\mu\text{s}$	--	12	20	V
C_J	$V_R=0\text{V}, f=1\text{MHz}$	--	180	--	pF

Characteristic Curves

Fig1. Pulse Waveform

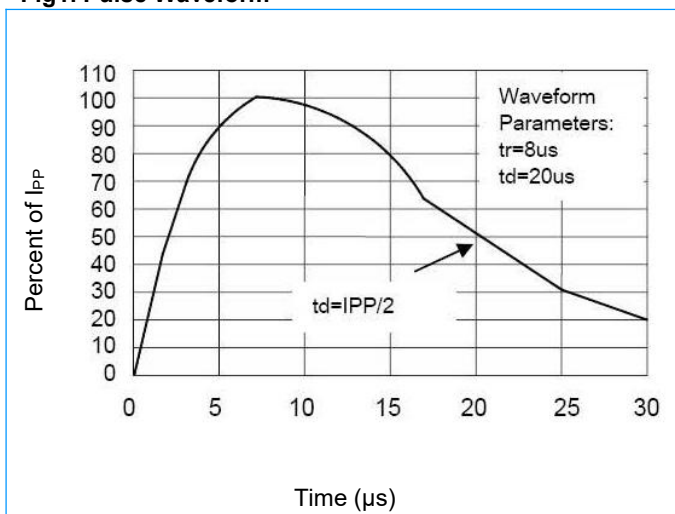
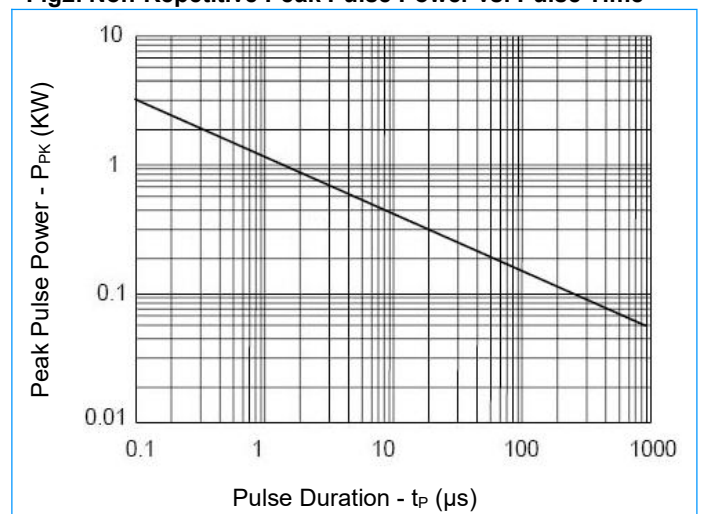


Fig2. Non-Repetitive Peak Pulse Power vs. Pulse Time

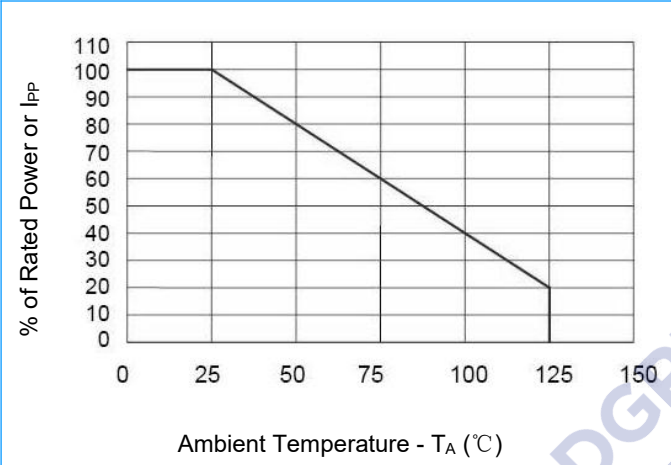


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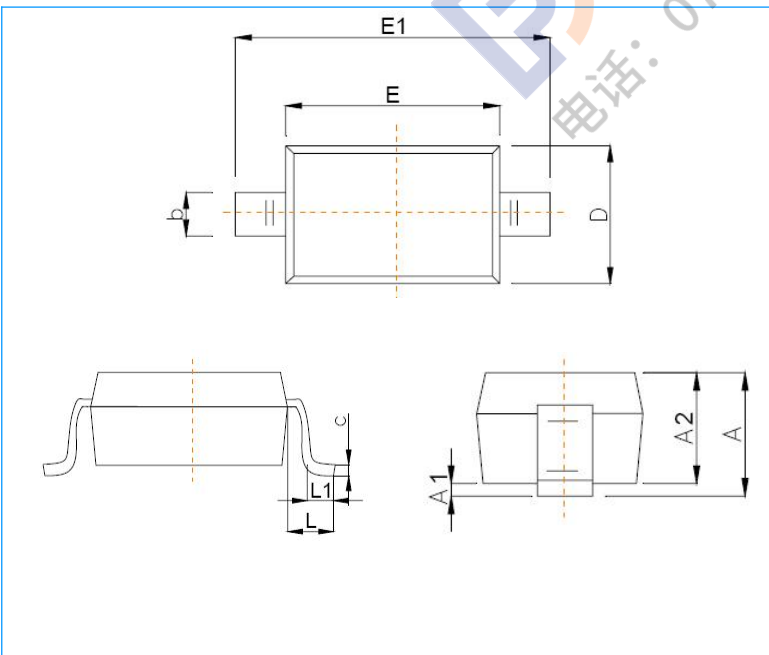
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Characteristic Curves (Continue)

Fig3. Power Derating Curve



SOD-323 Package Outline & Dimensions



Symbol	Dimensions in Millimeters	
	Min.	Max.
A	--	1.00
A1	0.00	0.10
A2	0.80	0.90
b	0.25	0.35
c	0.08	0.15
D	1.20	1.40
E	1.60	1.80
E1	2.50	2.70
e	1.80	2.04
L	0.475 REF	
L1	0.25	0.40
θ	0°	8°

Recommended Pad Outline

