

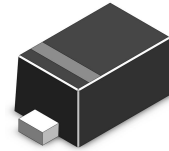


Transient Voltage Suppressors for ESD Protection

Features

- ◆ Protects one I/O line
- ◆ Low clamping voltage
- ◆ Working voltage: 5V
- ◆ Low leakage current

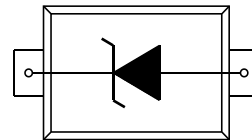
SOD-523



Applications

- ◆ Cellular Handsets and Accessories
- ◆ Portable Electronics
- ◆ Servers, Notebook, and Desktop PC
- ◆ Display Portst

Functional Diagram



Mechanical Characteristics

- ◆ SOD-523 Package
- ◆ Molding Compound Flammability Rating: UL 94V-0
- ◆ Quantity Per Reel: 3,000pcs
- ◆ Reel Size: 7 inch

Absolute Maximum Rating

Symbol	Parameter	Value	Units
T _L	Lead Soldering Temperature	260 (10sec)	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _{OP}	Operating Temperature Range	-55 to +150	°C
	IEC61000-4-2 (ESD)	Air Discharge ±30 Contact Discharge ±30	KV
	IEC61000-4-4 (EFT)	40	A

Transient Voltage Suppressors for ESD Protection

ESD5Z5V0

Electrical Characteristics (@T_A=25°C, unless otherwise specified)

Symbol	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V _{RWM}	--	--	--	5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T = 1mA	6.0	--	--	V
Reverse Leakage Current	I _R	V _{RWM} =5V	--	--	0.1	μA
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20μs	--	8.0	--	V
		I _{PP} =10A, t _p =8/20μs	--	11.0	--	V
Junction Capacitance	C _J	V _R =0V, f=1MHz	--	70.0	--	pF

Characteristic Curves

Fig1. V-I Curve Characteristics (Ui-directional)

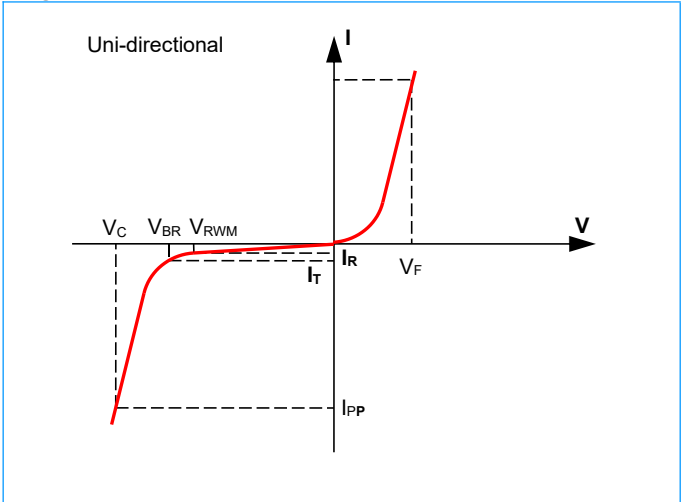


Fig2. Pulse Waveform (8/20μs)

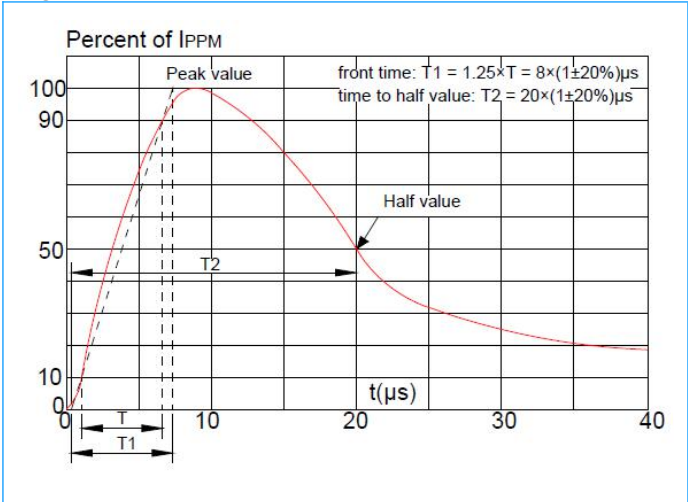


Fig3. Pulse Derating Curve

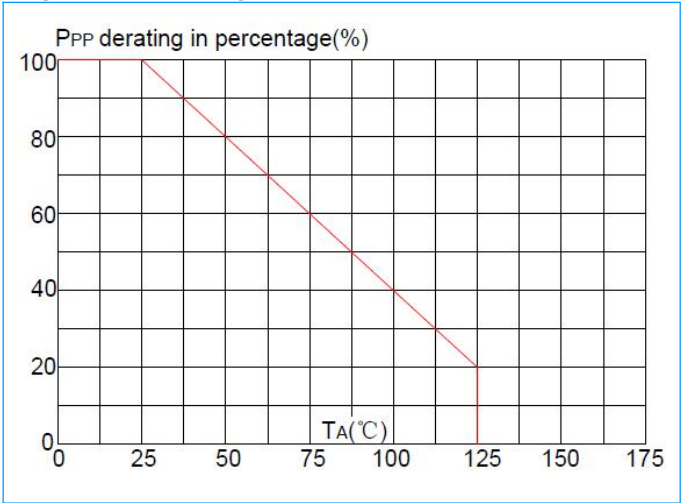
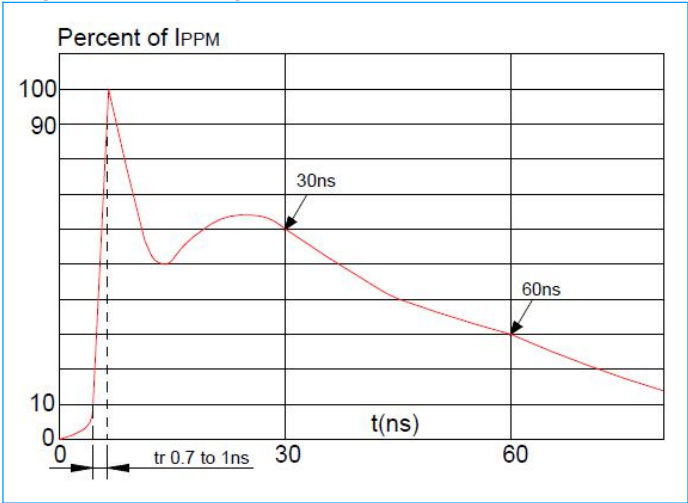


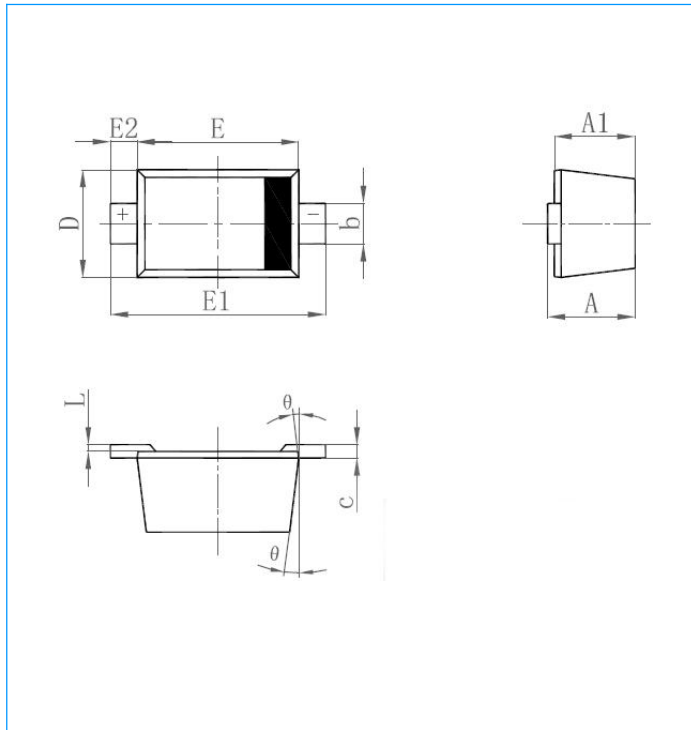
Fig4. ESD Clamping (30kV Contact)



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SOD-523 Package Outline & Dimensions



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.51	0.77	0.020	0.031
A1	0.40	0.70	0.015	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	