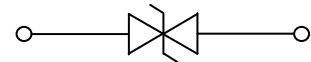


Features

- Bi-Directional transient voltage suppressor
- Low capacitance and low leakage
- ESD protection, IEC61000-4-2 Level 4
- SOD523 thin SMD
- RoHS compliant
- UL-94 V-0 / green EMC
- Matte tin lead finish (Pb-Free)



SOD-523



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Reverse Peak Pulse Current ¹	I_{PP}	5	A
ESD Voltage IEC61000-4-2 Air	$V_{ESD-Air}$	± 30	kV
ESD Voltage IEC61000-4-2 Contact	$V_{ESD-contact}$	± 30	kV
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

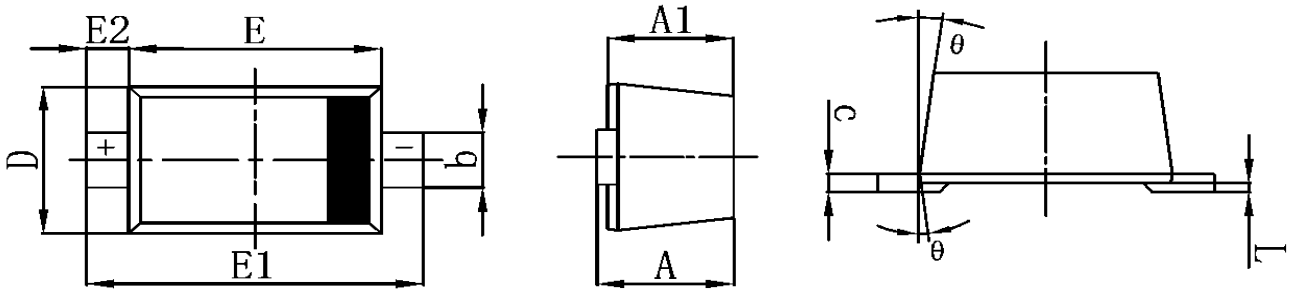
Note:

1. $t_p=8/20\mu\text{s}$.

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

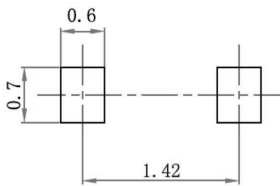
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Working Peak Voltage	V_{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage Pin 1 to 2	V_{BR}	$I_T=1\text{mA}$	5.6	-	8.2	V
Reverse Current	I_R	$V_{RWM}=\pm 5\text{V}$	-	-	1.0	μA
Clamping Voltage	V_C	$I_{PP}=5\text{A}$	-	-	11	V
Diode Capacitance	C_D	$V_R=0\text{V}$, $F=1\text{MHz}$	-	13	-	pF

Package Outline Dimensions (SOD-523)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: ±0.05mm
3. The pad layout is for reference purposes only

Order Information

Device	Package	Marking	Quantity	HSF Status
GSEV5B130	SOD-523	5C	8,000pcs / Reel	RoHS Compliant