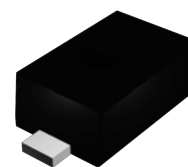
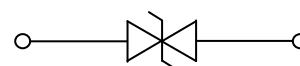


Features

- Transient voltage suppressor
- Low leakage
- IEC61000-4-2 Level 4 ESD protection
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte tin lead finish (Pb-Free)



SOD-523



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Current	I _{PP}	18	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 _{PK}	200	W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Working Peak Voltage	V _{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6.0	6.4	-	V
Reverse Current	I _R	V _{RWM} =5V	-	0.1	0.2	μA
Clamping Voltage	V _C	I _{PP} =1A, T _p =8/20us	-	7.0	9.0	V
		I _{PP} =18A, T _p =8/20us	-	9.0	12	
Total Capacitance	C _{tot}	V _R =0V, F=1MHz	-	35	55	pF

Typical Characteristic Curves

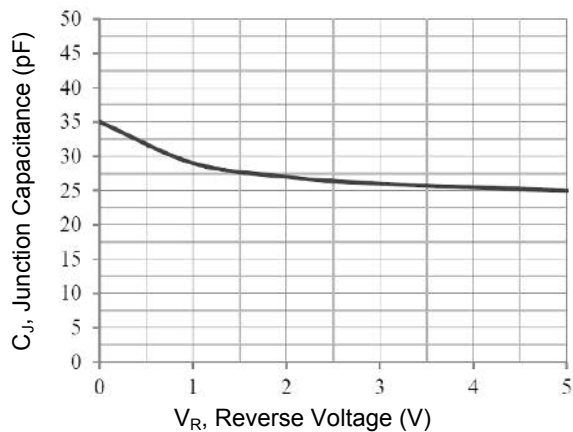


Figure 1. Junction Capacitance vs. Reverse Voltage

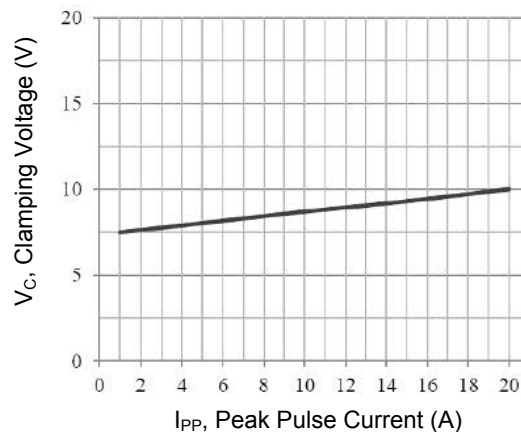


Figure 2. Clamping Voltage vs. Peak Pulse Current

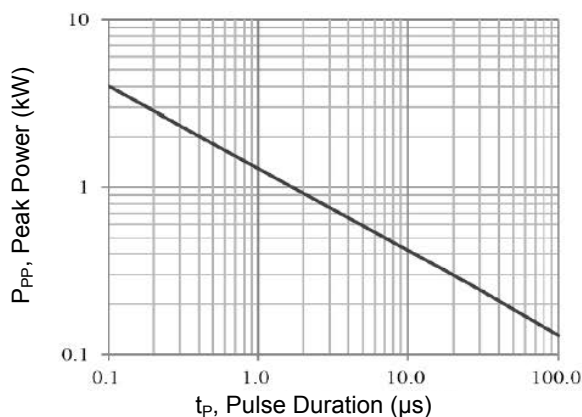


Figure 3. Peak Pulse Power vs. Pulse Time

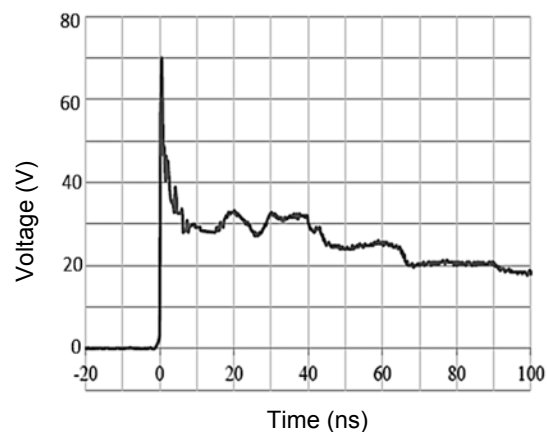


Figure 4. IEC61000-4-2 Pulse Waveform

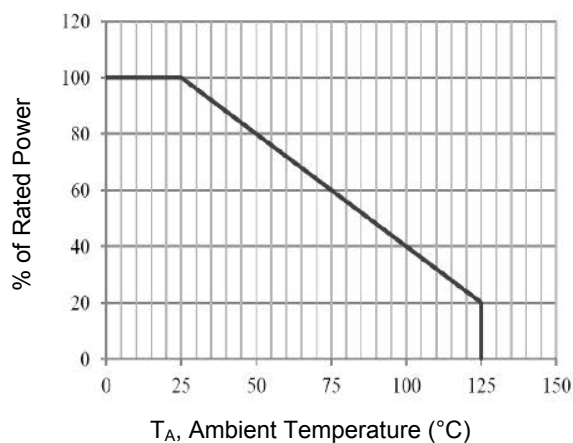


Figure 5. Power Derating Curve

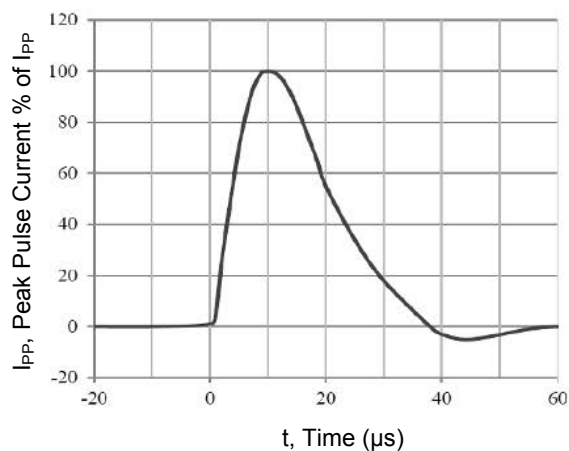
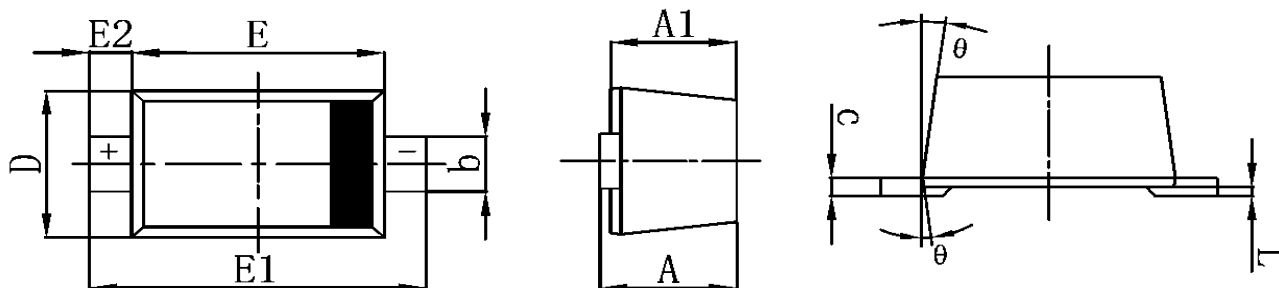


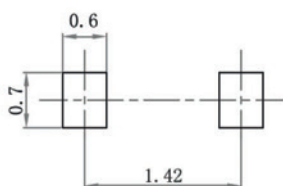
Figure 6. 8 X 20μs Pulse Waveform

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: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

Order Information

Device	Package	Marking	Carrier	Quantity
GSEV5B350	SOD-523	C2	Tape & Reel	8,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com