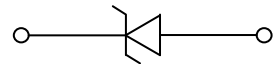


Features

- Ultra low capacitance
- Low clamping voltage
- ESD protection: IEC61000-4-2
- SOD-923 micro SMD package
- UL-94 V-0 / Green EMC
- Matte tin lead finish (Pb-Free)



SOD-923



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Maximum Reverse Peak Pulse Current ($t=8/20\mu\text{s}$)	I_{PP}	4.5	A
ESD Voltage IEC61000-4-2 Air	$V_{ESD-Air}$	± 15	kV
ESD Voltage IEC61000-4-2 Contact	$V_{ESD-contact}$	± 8	kV
Peak Pulse Power (8/20 μs)	P_{PK}	80	W
Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	5	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}, T_P=8/20\mu\text{S}$	-	8	12	V
Clamping Voltage	V_C	$I_{PP}=4.5\text{A}, T_P=8/20\mu\text{S}$	-	16	20	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	-	0.45	0.65	pF

Ratings and Characteristics Curves

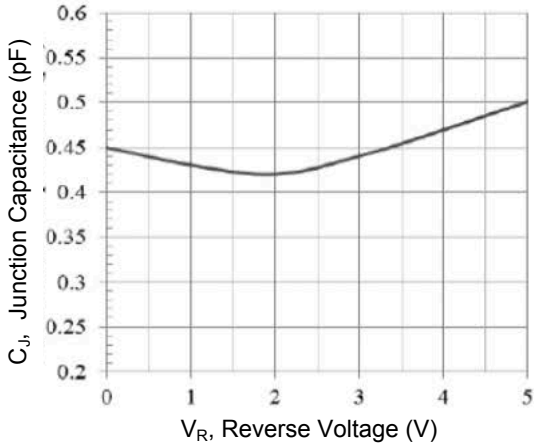


Figure 1. Junction Capacitance vs. Reverse Voltage

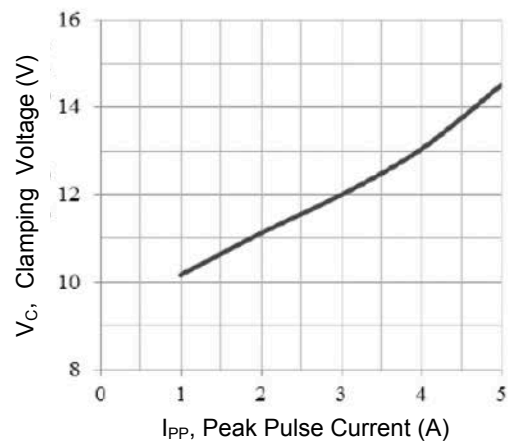


Figure 2. Clamping Voltage vs. Peak Pulse Current

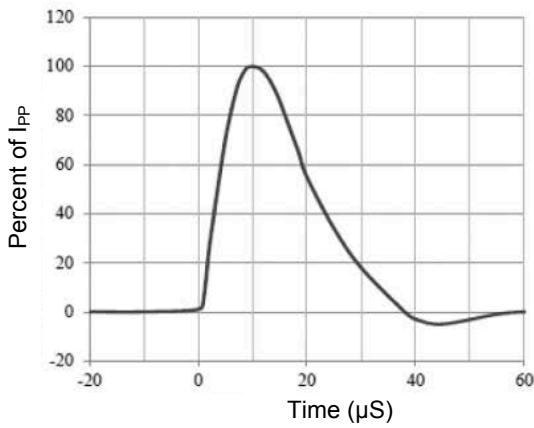


Figure 3. Pulse Waveform-8/20 μ S

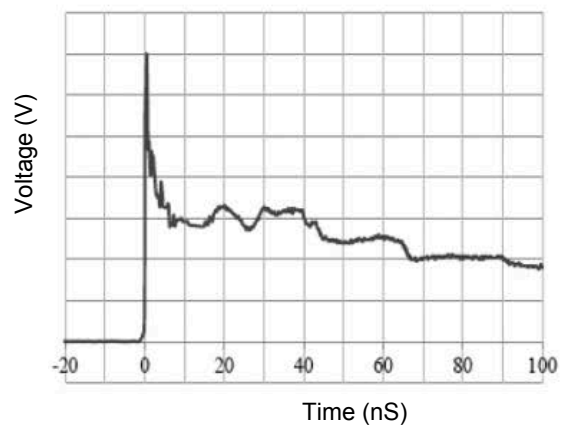


Figure 4. IEC61000-4-2 Pulse Waveform

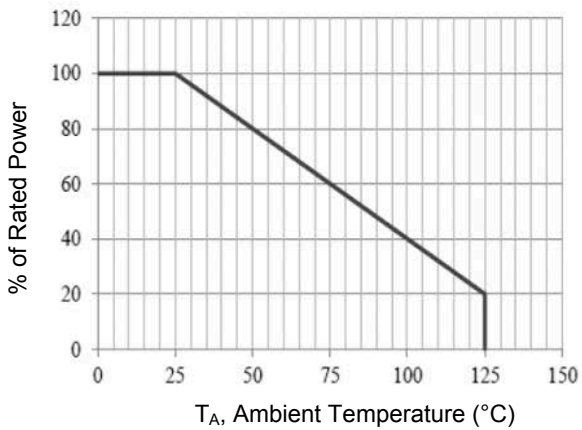
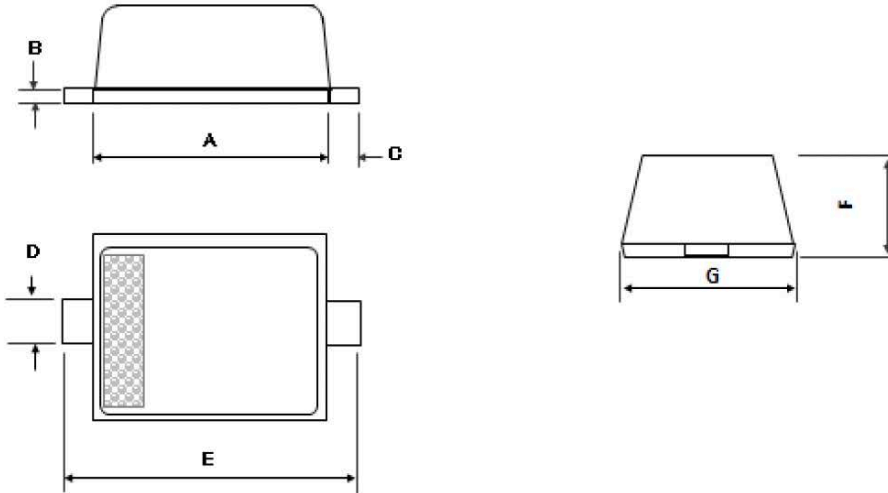


Figure 5. Power Derating Curve

Package Outline Dimensions (SOD-923)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.700	0.900	0.028	0.035
B	0.050	0.200	0.002	0.008
C	0.050	0.150	0.002	0.006
D	0.150	0.300	0.006	0.012
E	0.900	1.100	0.035	0.043
F	0.390	0.450	0.015	0.018
G	0.550	0.650	0.022	0.026

Order Information

MPN	Package	Marking	Quantity	HSF Status
GSEM3U0045	SOD-923	P	8,000pcs / Reel	RoHS compliant