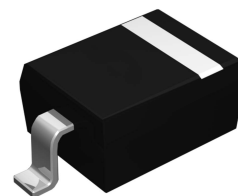


Features

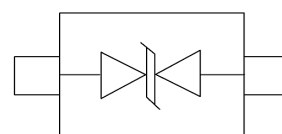
- Protects one data or power line
- Ultra low leakage: nA level
- Operating voltage: 5V
- Complies with following standards:
- Ultra low clamping voltage
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{KV}$
 - Contact discharge: $\pm 30\text{KV}$
 - IEC 61000-4-5 (lightning) 16A (8/20 μs)
- RoHS compliant



SOD-323

Applications

- Cellular handsets and accessories
- Personal digital assistants
- Notebooks and handhelds
- Portable instrumentation
- Digital cameras
- Peripherals
- Audio players
- Keypads, side keys, LCD displays



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P_{PK}	200	W
Peak Pulse Current (8/20 μs)	I_{PP}	16	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating 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	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	-	-	-	5	V
Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$	-	-	0.2	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$	-	-	8	V
Clamping Voltage	V_C	$I_{PP}=16\text{A}$	-	-	12.5	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$	-	40	-	pF

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

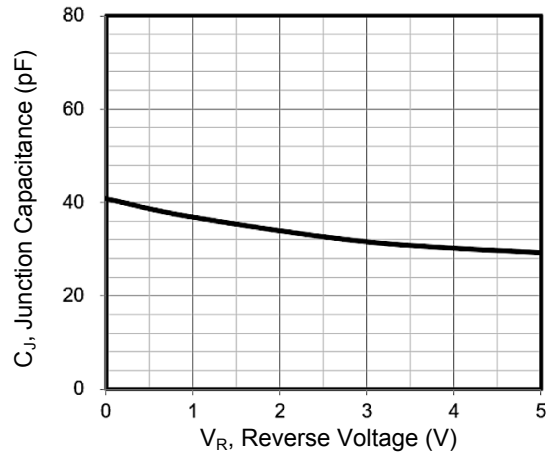


Figure 1. Junction Capacitance vs. Reverse Voltage

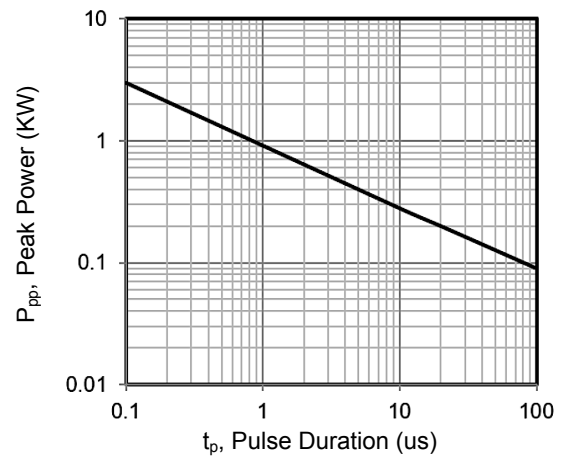


Figure 2. Peak Pulse Power vs. Pulse Time

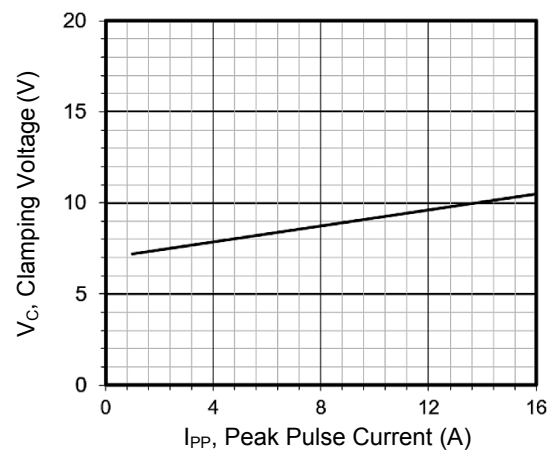


Figure 3. Clamping Voltage vs. Peak Pulse Current
($t_p=8/20\mu\text{s}$)

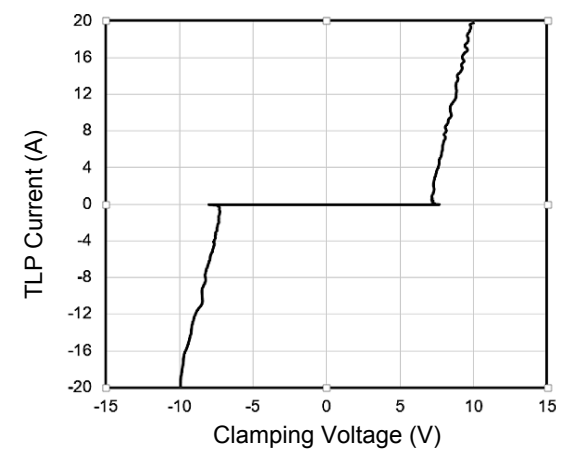


Figure 4. TLP Curve

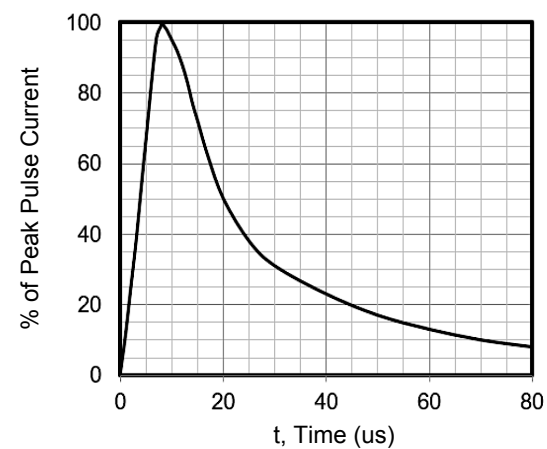


Figure 5. 8 x 20us Pulse Waveform

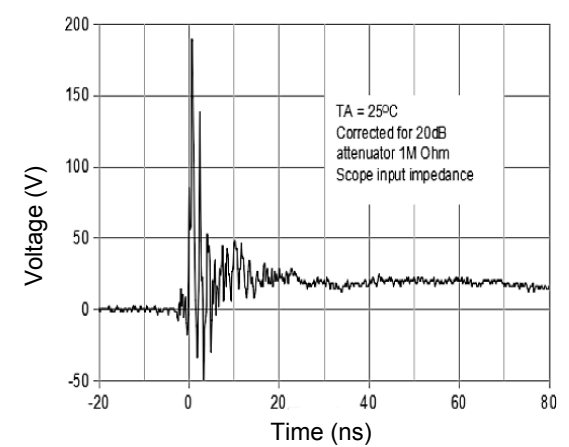
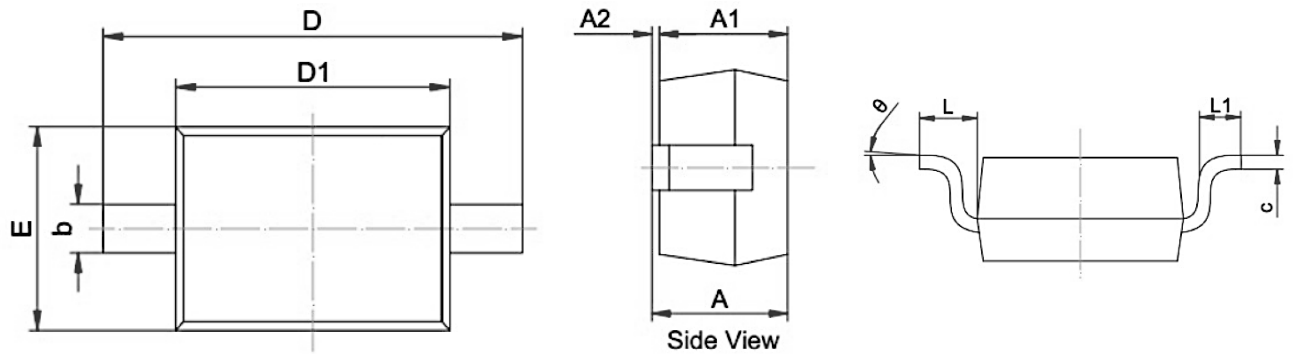


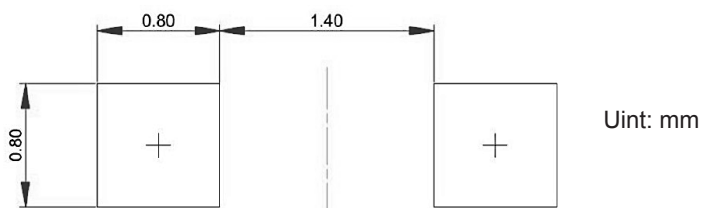
Figure 6. ESD Clamping Voltage
8kV Contact Per IEC 61000-4-2

Package Outline Dimension (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.800	1.100	0.031	0.043
A1	0.800	0.900	0.031	0.035
A2	0.000	0.100	0.000	0.004
b	0.250	0.400	0.010	0.016
c	0.080	0.177	0.003	0.007
D1	1.600	1.800	0.063	0.071
D	2.300	2.800	0.091	0.110
E	1.150	1.400	0.045	0.055
L	0.475REF		0.019REF	
L1	0.100	0.500	0.004	0.020
θ	0°	8°	0°	8°

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSEDC5B250	SOD-323	5.C	Tape & Reel	3,000 Pcs / Reel

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