

Features

- Low operating voltage: 3.3V
- Ultra low capacitance: 0.4pF (Typ)
- Ultra low leakage: nA level
- Low clamping voltage
- -IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
- -IEC61000-4-4 (EFT) 40A (5/50ns)
- -IEC61000-4-5 (Lightning) 8A (8/20 μs)
- 2-pin leadless package
- These are Pb-Free Devices
- Response Time is Typically < 1 ns

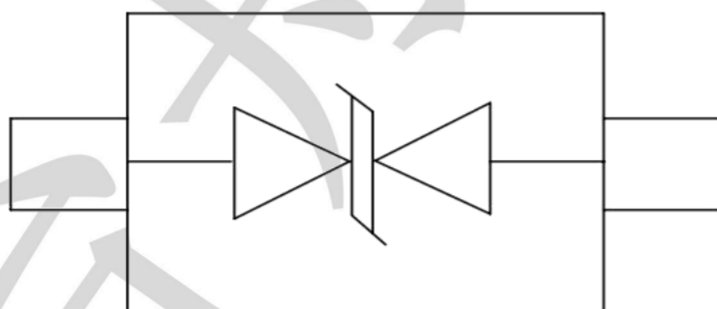
Mechanical Characteristics

- Package: SOD323(0805)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- -IEC 61000-4-2 (ESD) immunity test

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- USB 2.0 power and data line

Dimensions and Pin Configuration



Marking:3C

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

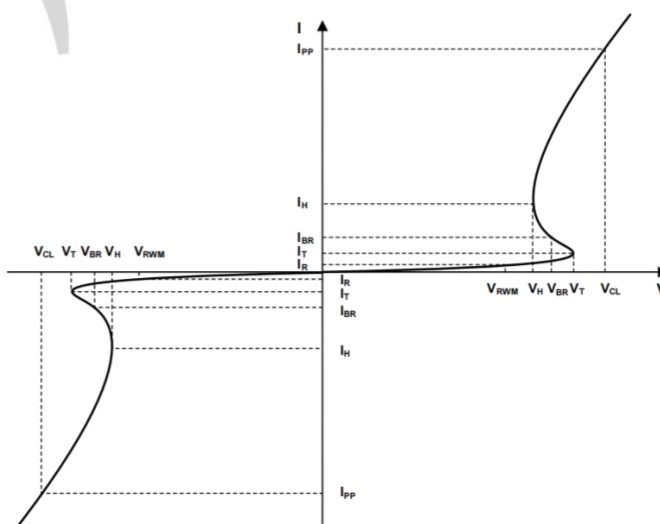
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pk}	72	W
Peak Pulse Current (8/20μs)	I _{pp}	8	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	KV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

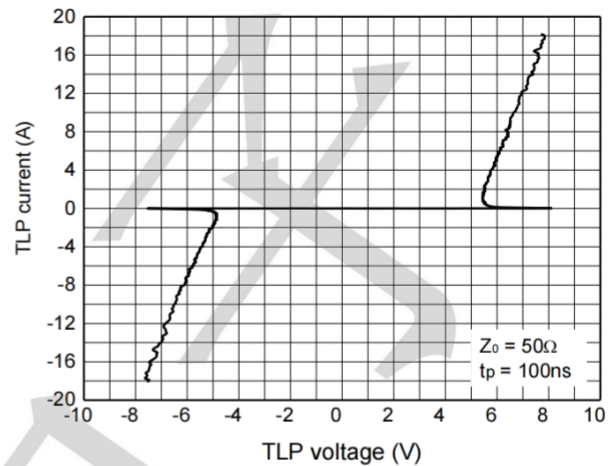
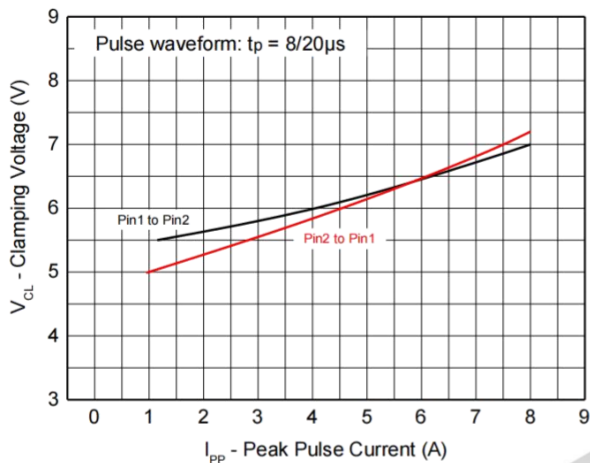
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}	--	--	3.3	V	
Breakdown Voltage	V _{BR}	4.0	5.0	--	V	I _T = 1mA
Reverse Leakage Current	I _R	--	--	500	nA	V _{RWM} =3.3V
Clamping Voltage	V _C	--	5.5	7.0	V	I _{pp} =1A(8x 20us pulse)
Clamping Voltage	V _C	--	7.5	10	V	I _{pp} =8A(8x 20us pulse)
Junction Capacitance	C _J	--	0.4	0.6	pF	V _R = 0V, f = 1MHz

Electrical Characteristics

Symbol	Parameter
V _{BR}	Reverse Breakdown Voltage
I _{BR}	Reverse Breakdown Current
V _{RWM}	Reverse Stand-off Voltage
I _R	Reverse Leakage Current
V _H	Holding Voltage
I _H	Holding Current
V _T	Trigger Voltage
I _T	Trigger Current
I _{PP}	Peak Pulse Current
V _{CL}	Clamping Voltage

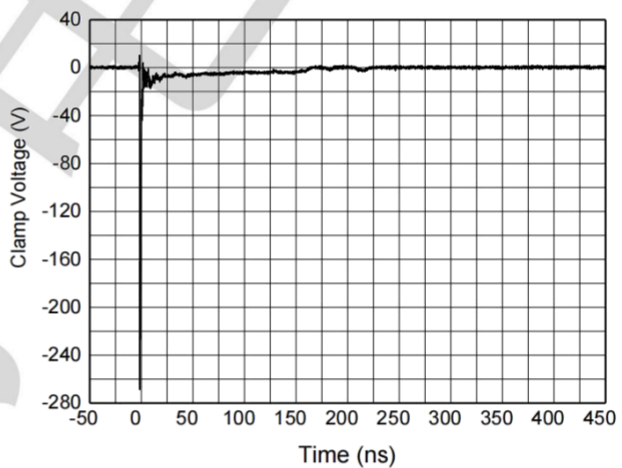
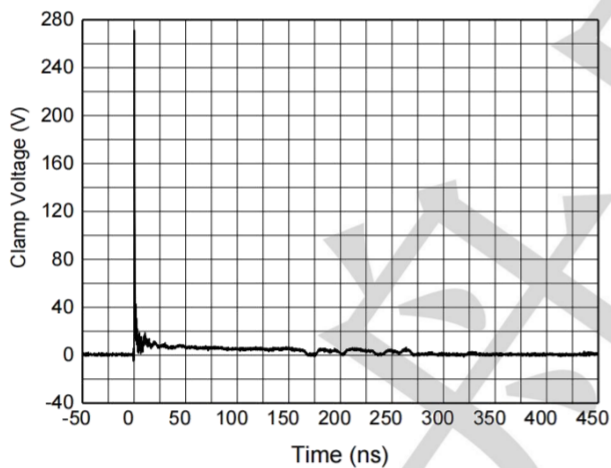


Characteristic Curves



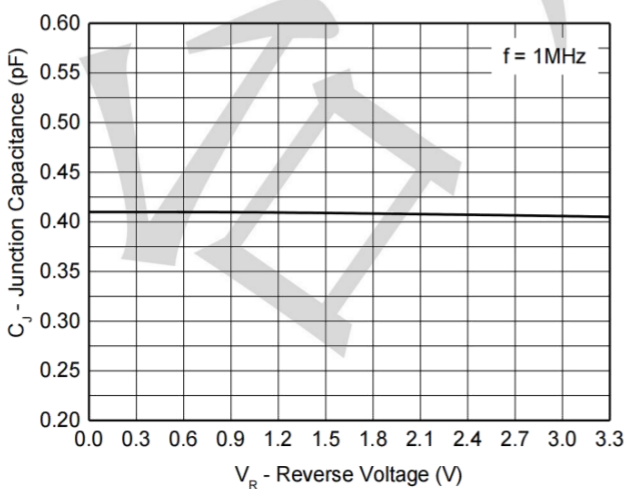
Clamping Voltage vs. Peak Pulse Current

TLP IV Curve



+8kV contact discharge per IEC61000-4-2

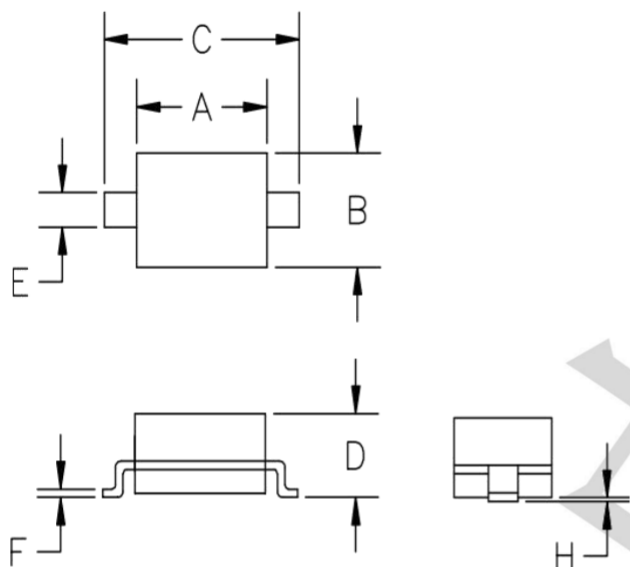
-8kV contact discharge per IEC61000-4-2



Capacitance vs. Reverse Voltage

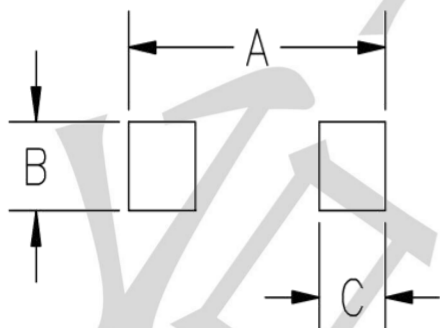
Package Outline & Dimensions

SOD323 (0805)



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.70	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031