Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Current	I_{PP}	3	A	8/20μs, per Figure 3
ESD Protection – Contact Discharge	$V_{ESD\_Contact}$	±10	kV	IEC 61000-4-2 Standard

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V_{RWM}	-	-	5	V	-
Channel Leakage Current (Note 6)	I_{RM}	-	5	100	nA	V_{RWM} = 5V
Clamping Voltage	V_{CL}	-	7.2	-	V	I_{PP} = 3A, t_p = 8/20μs
Breakdown Voltage	V_{BR}	5.5	7	9.5	V	I_R = 5mA
Differential Resistance	R_{DIF}	-	-	100	Ω	I_R = 1mA
Dynamic Impedance	R_{dyn}	-	0.3	-	Ω	TLP, 20A, tp = 100 ns
Channel Input Capacitance	C_T	-	2.9	-	pF	V_R = 0V, f = 1MHz
		-	1.9	-		V_R = 5V, f = 1MHz

Notes: 5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at http://www.diodes.com.
6. Short duration pulse test used to minimize self-heating effect.

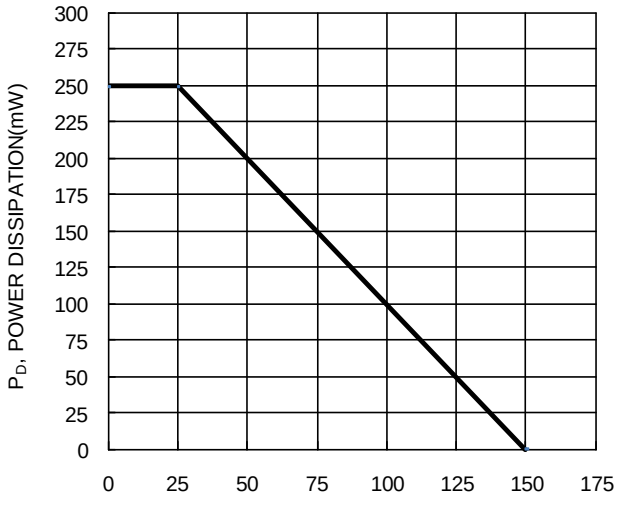


Figure 1. Power Derating Curve

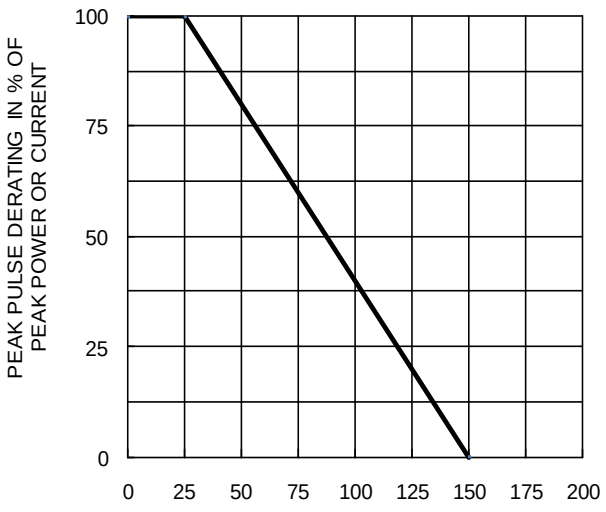


Figure 2. Pulse Derating Curve

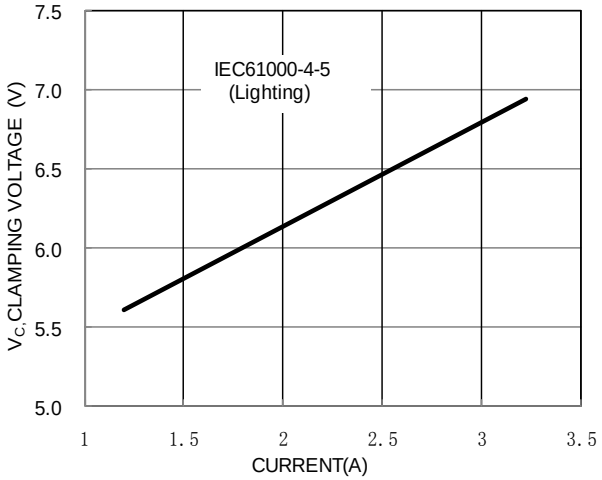


Figure 3. Clamping Voltage Characteristic

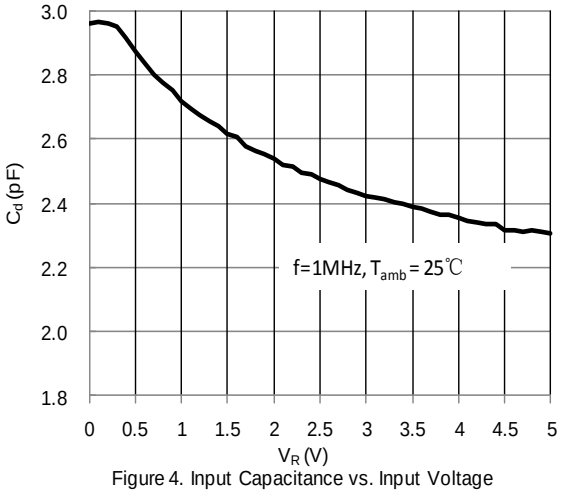


Figure 4. Input Capacitance vs. Input Voltage

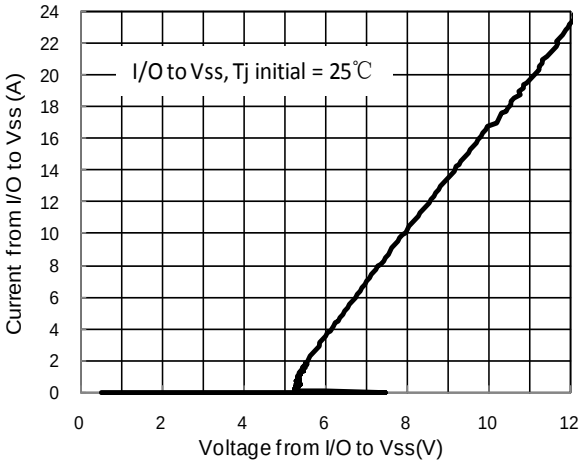


Figure 5. Current vs. Voltage

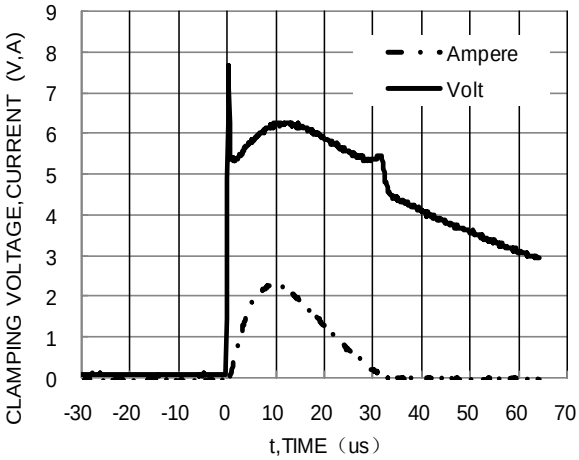


Figure 6. Waveform of Clamping Voltage,Current vs. Time(8/20us,I/O to Vss)

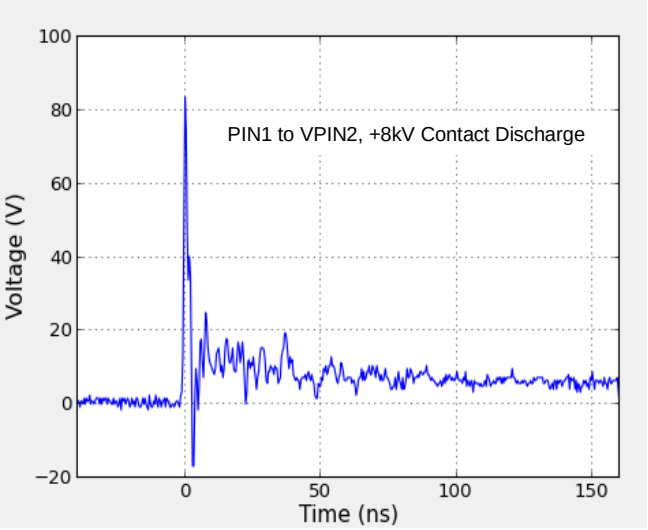


Figure 7 ESD Response to IEC 61000-4-2

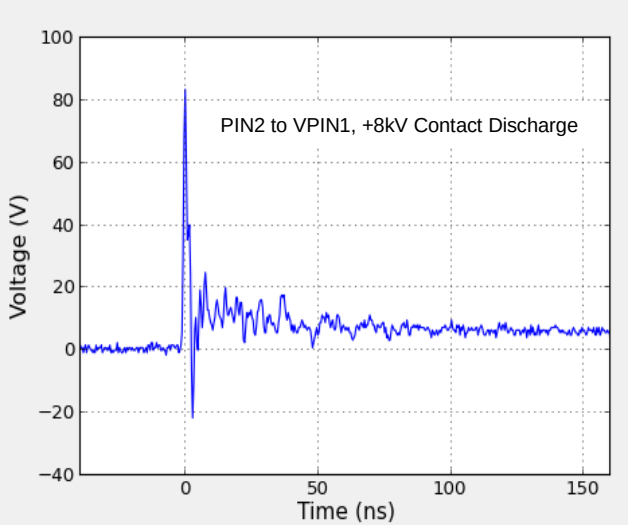
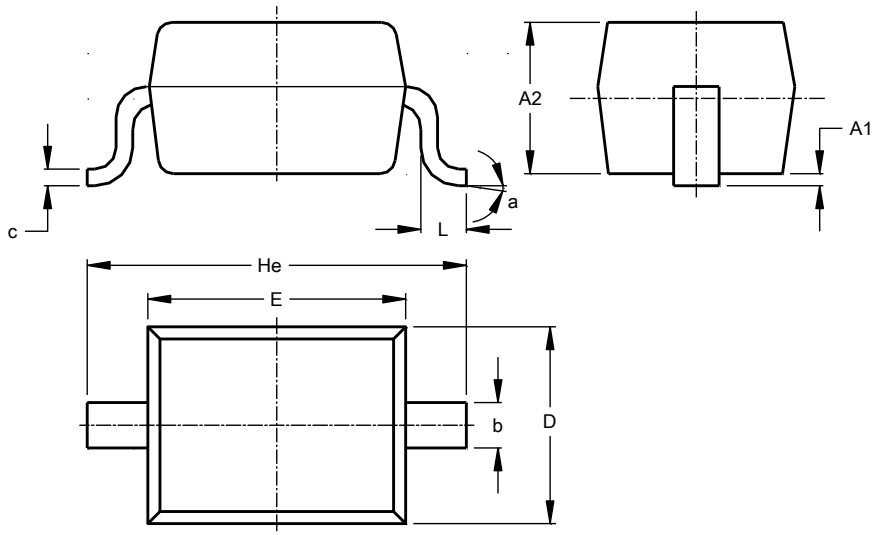


Figure 8 ESD Response to IEC 61000-4-2

Package Outline Dimensions

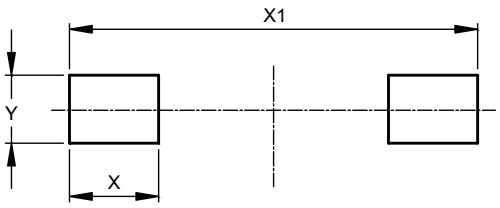
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



SOD323			
Dim	**Min**	**Max**	**Typ**
A1	-	0.10	0.05
A2	1.00	1.10	1.05
b	0.25	0.35	0.30
c	0.10	0.15	0.11
D	1.20	1.40	1.30
E	1.60	1.80	1.70
He	2.30	2.70	2.50
L	0.20	0.40	0.30
a	8°		
All Dimensions in mm			

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
X	0.590
X1	2.700
Y	0.450

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