

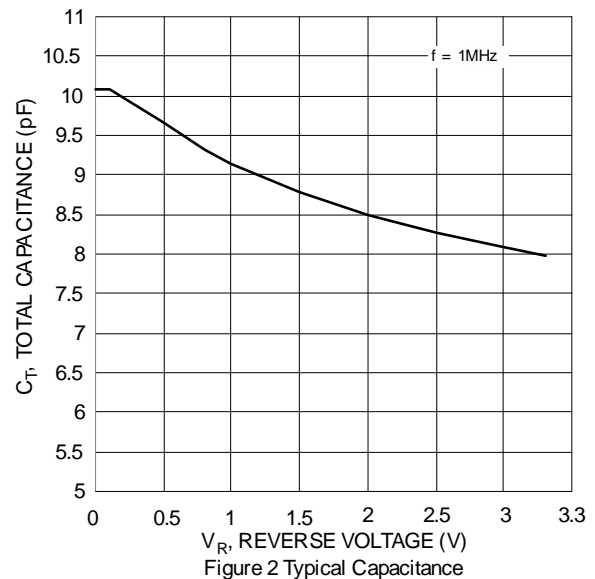
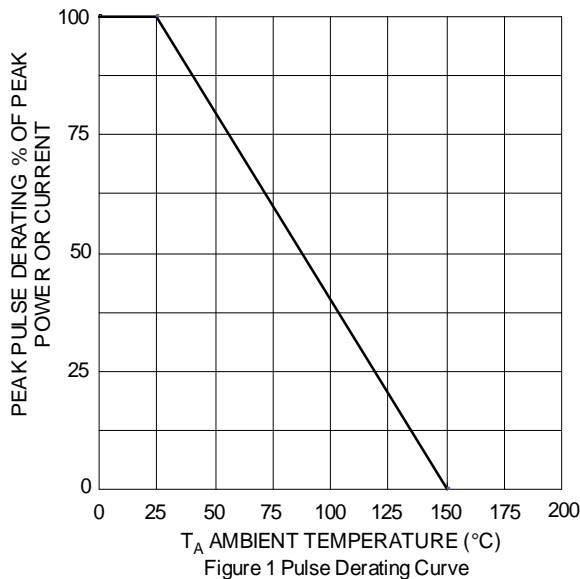
## Thermal Characteristics

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 (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	$V_{RWM}$	—	—	3.3	V	—
Channel Leakage Current (Note 6)	$I_{RM}$	—	10	100	nA	$V_{RWM} = 3.3\text{V}$
Clamping Voltage, Positive Transients	$V_{CL}$	—	4.5 5.8	5.4 7.0	V	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$
Breakdown Voltage	$V_{BR}$	3.8	—	6.5	V	$I_R = 1\text{mA}$
Differential Resistance	$R_{DIF}$	—	0.3	—	$\Omega$	$I_R = 1\text{A}$
Channel Input Capacitance	$C_T$	—	10	13	pF	$V_R = 0\text{V}, f = 1\text{MHz}$

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



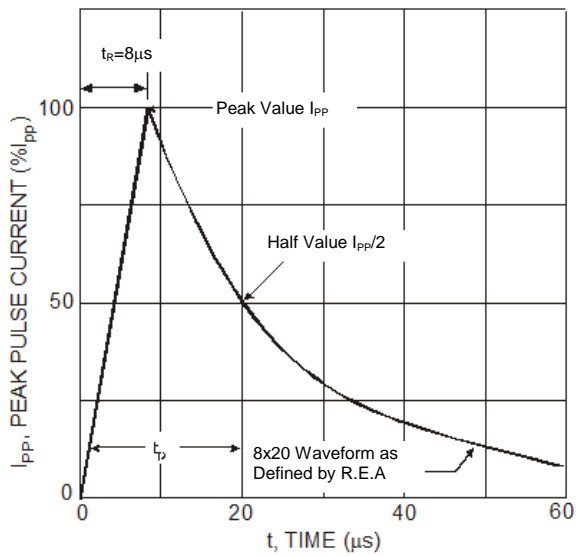


Figure 3 Pulse Waveform

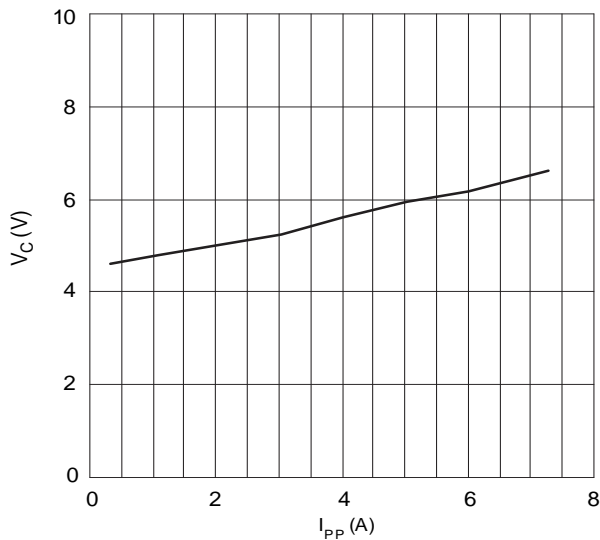


Figure 5 Typical Peak Clamping Voltage  $V_C$  vs. Peak Pulse Current  $I_{PP}$

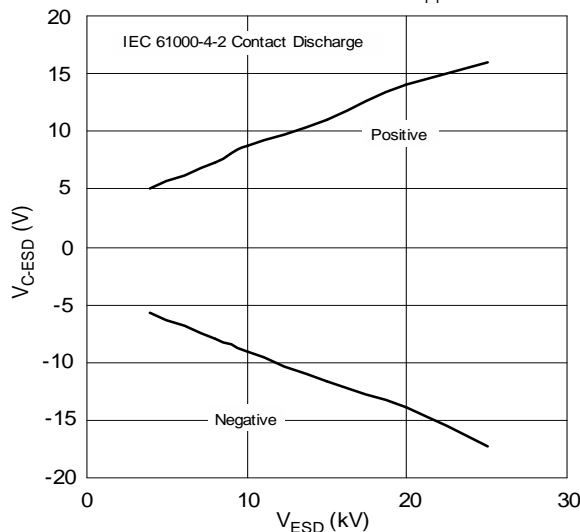


Figure 7 Typical Clamping Voltage vs. Contact Discharge Voltage

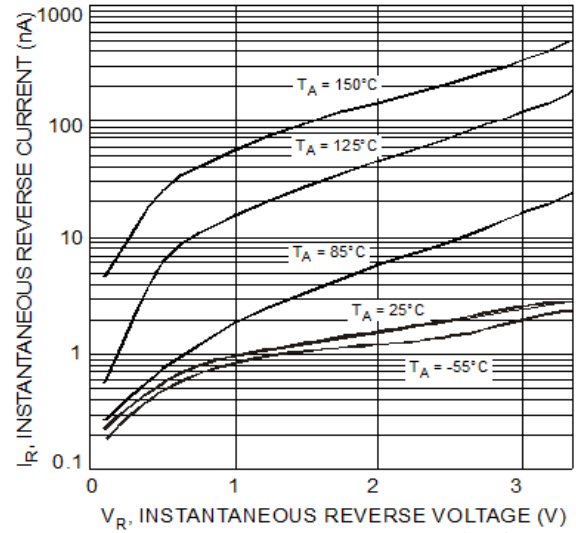


Figure 4 Typical Reverse Characteristics

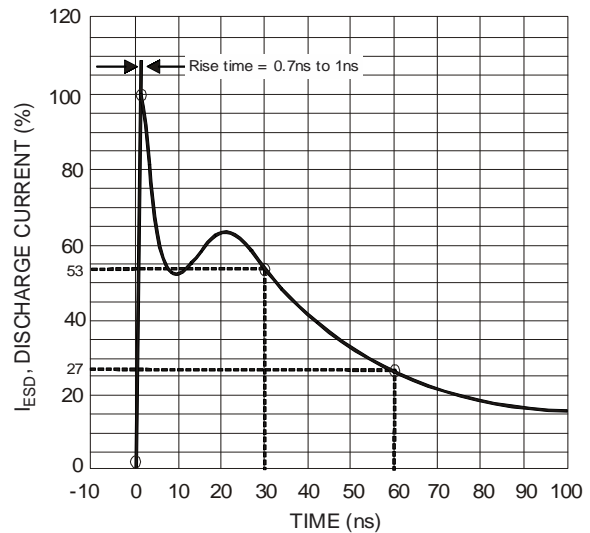


Figure 6 ESD Discharge Current Wave Form IEC 6100-4-2 (330  $\Omega$ /150pF)

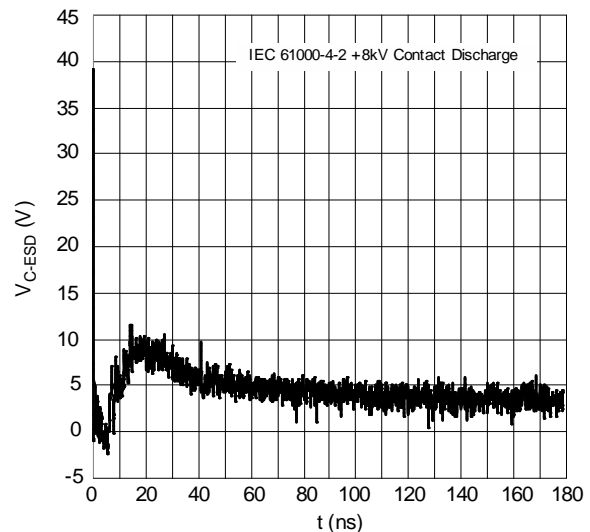


Figure 8 Typical Clamping Performance @ 8kV Contact Discharge

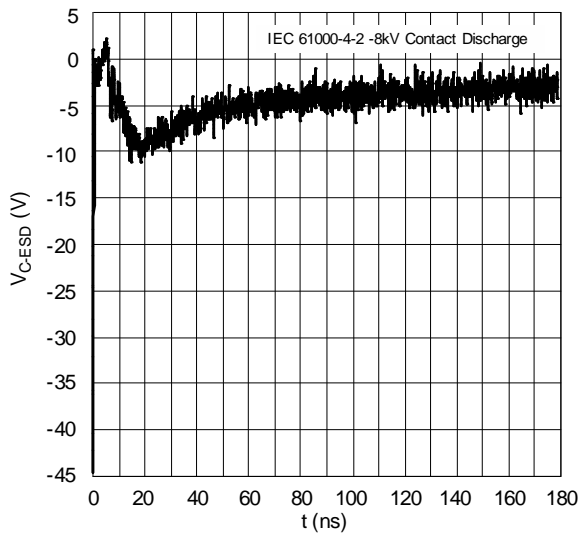


Figure 9 Typical Clamping Performance  
@ -8kV Contact Discharge

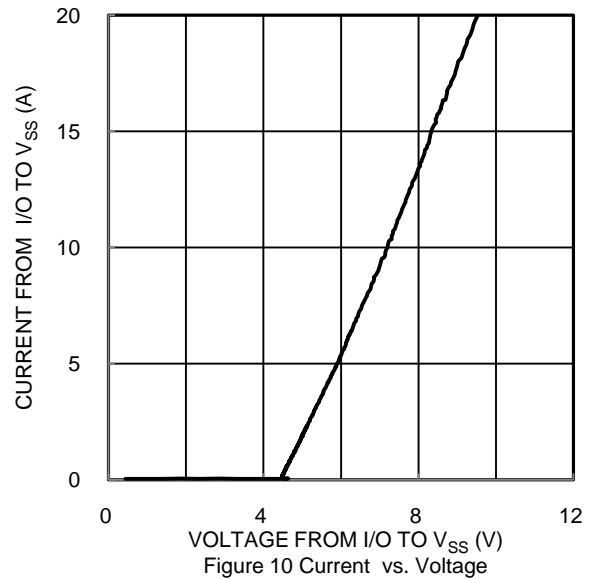
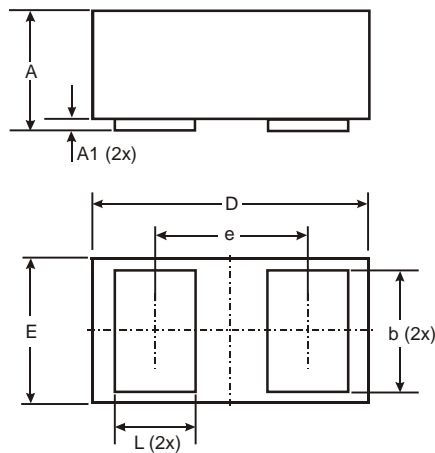


Figure 10 Current vs. Voltage

## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### X3-DFN0603-2

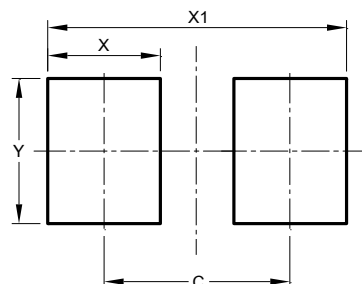


X3-DFN0603-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

## Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### X3-DFN0603-2



Dimensions	Value (in mm)
C	0.380
X	0.230
X1	0.610
Y	0.300

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