

**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Current	I <sub>PP</sub>	3	A	8/20μs, per Figure 1
ESD Protection – Contact Discharge	V <sub>ESD_Contact</sub>	±14	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V <sub>ESD_Air</sub>	±15	kV	IEC 61000-4-2 Standard

**Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P <sub>D</sub>	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	R <sub>θJA</sub>	500	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V <sub>RWM</sub>	—	—	5.5	V	—
Channel Leakage Current (Note 6)	I <sub>RM</sub>	—	—	100	nA	V <sub>RWM</sub> = 5.5V
Clamping Voltage	V <sub>CL</sub>	—	7.2	—	V	I <sub>PP</sub> = 1A, tp = 8/20μs
		—	8.4	—		I <sub>PP</sub> = 3A, tp = 8/20μs
ESD Clamping Voltage	V <sub>CL</sub>	—	5.9	—	V	TLP, 1A, tp = 100 ns, I/O to V <sub>SS</sub>
		—	8.3	—		TLP, 16A, tp = 100 ns, I/O to V <sub>SS</sub>
Differential Resistance	R <sub>DYN</sub>	—	0.2	—	Ω	TLP, 10A, tp = 100ns
Breakdown Voltage	V <sub>BR</sub>	6	—	10	V	I <sub>R</sub> = 1mA
Channel Input Capacitance	C <sub>T</sub>	—	5.5	—	pF	V <sub>R</sub> = 0V, f = 1MHz

Notes: 5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout, which can be found on our website at <http://www.diodes.com/package-outlines.html>.

6. Short duration pulse test used to minimize self-heating effect.

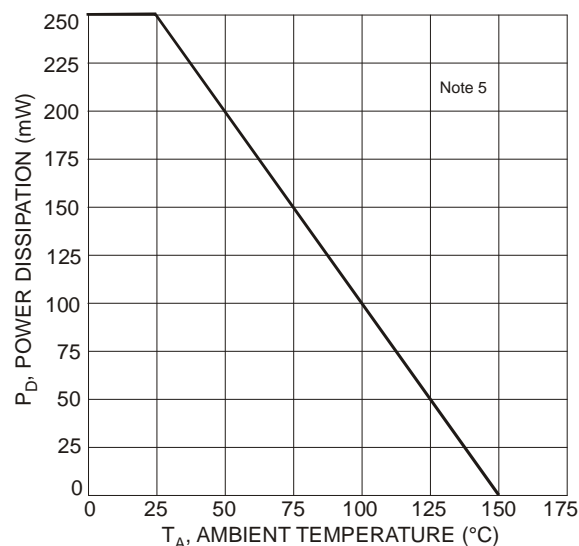


Figure 1 Power Derating Curve

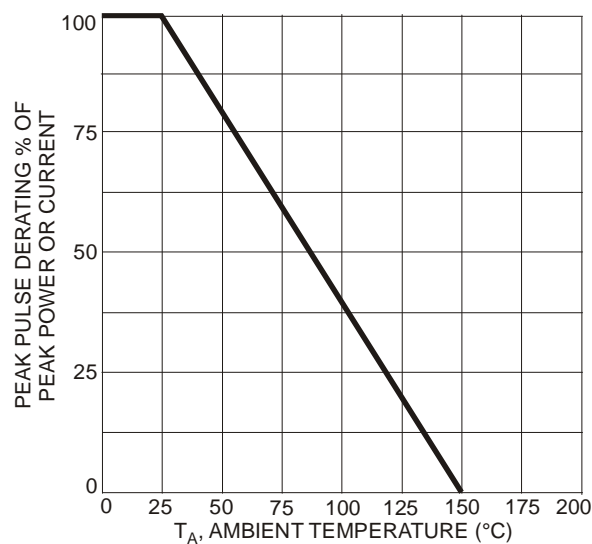
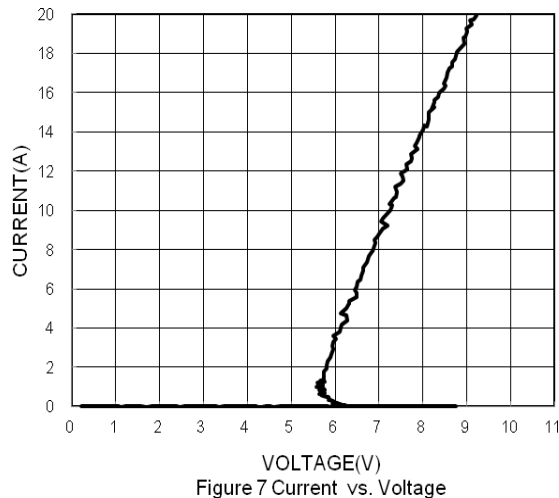
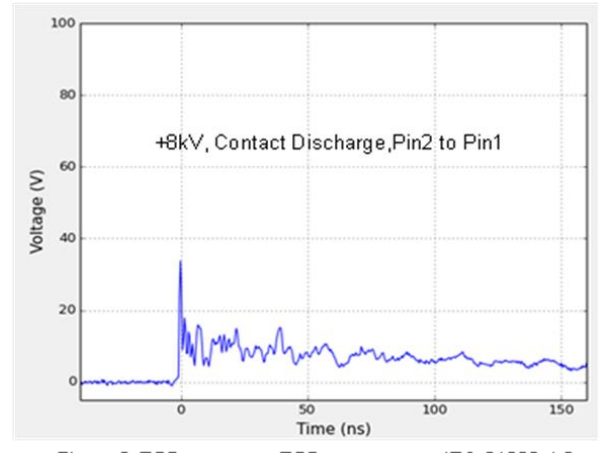
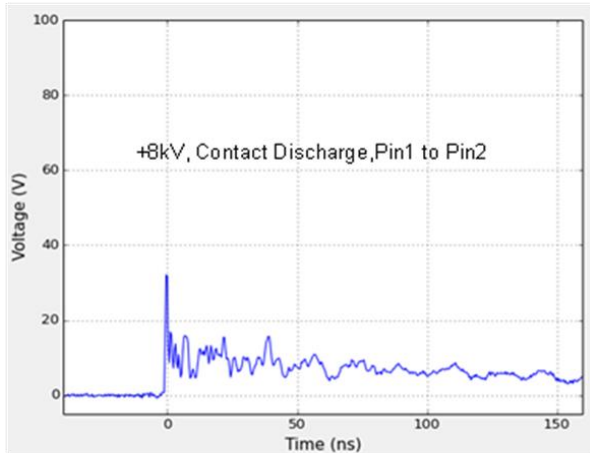
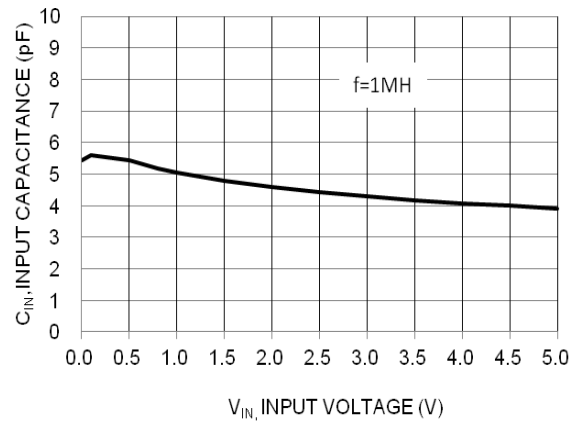
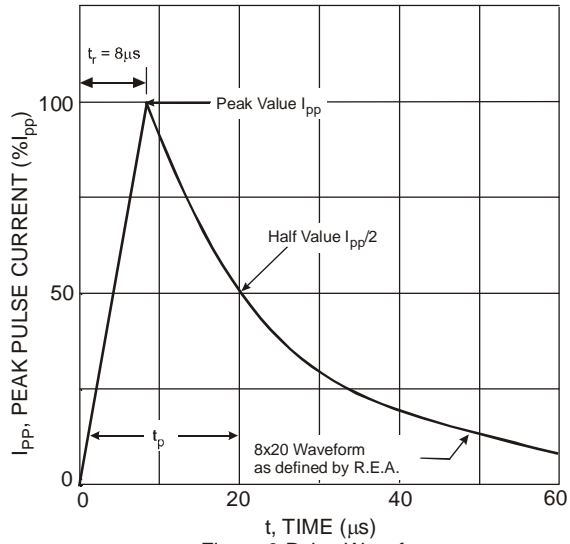


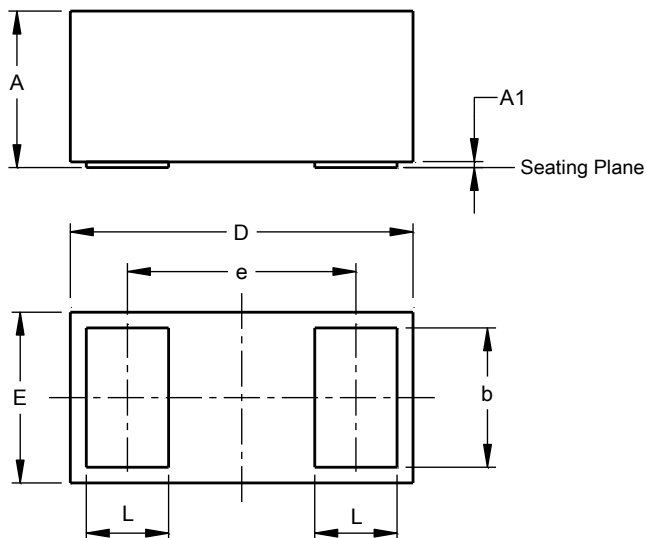
Figure 2 Pulse Derating Curve



## Package Outline Dimensions (Note 7)

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

**X2-DSN0603-2**



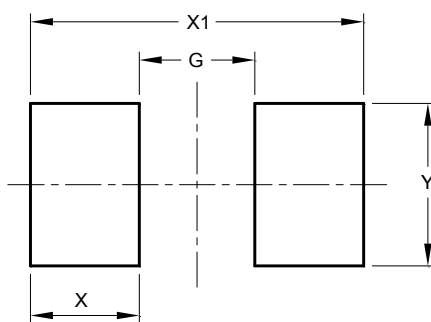
X2-DSN0603-2			
Dim	Min	Max	Typ
A	0.280	0.320	0.300
A1	0.00	0.020	0.010
b	0.220	0.260	0.240
D	0.575	0.625	0.600
E	0.275	0.325	0.300
e	-	-	0.400
L	0.120	0.160	0.140
All Dimensions in mm			

Note: 7. Device side walls are electrically active bare silicon. Avoid contact of solder or flux on the side walls during the PCB assembly process.

## Suggested Pad Layout

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

**X2-DSN0603-2**



Dimensions	Value (in mm)
G	0.206
X	0.194
Y	0.291
X1	0.594

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