

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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P <sub>PP</sub>	120	W	8/20μs, per Figure 1
Peak Pulse Current	I <sub>PP</sub>	10	A	8/20μs, per Figure 1
ESD Protection – Contact Discharge	V <sub>ESD_Contact</sub>	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V <sub>ESD_Air</sub>	±30	kV	IEC 61000-4-2 Standard

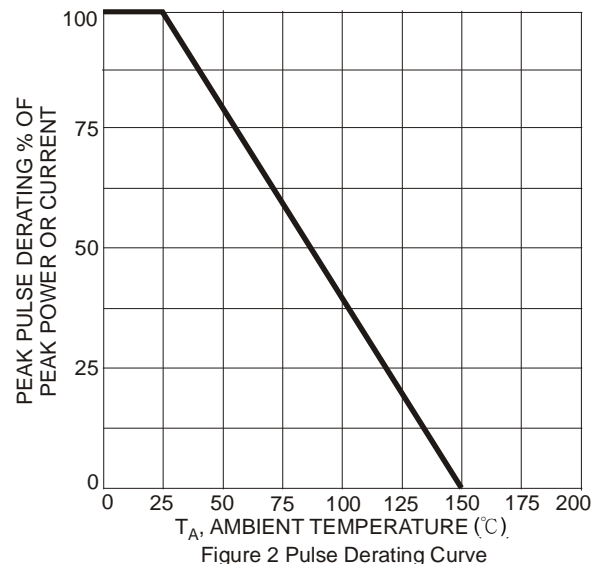
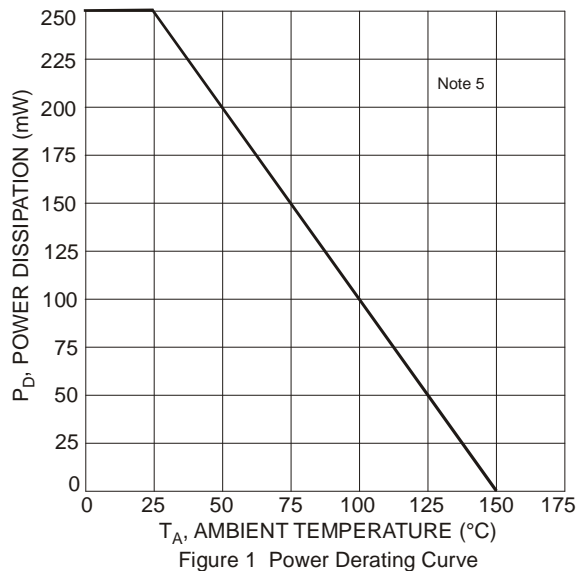
**Thermal Characteristics**

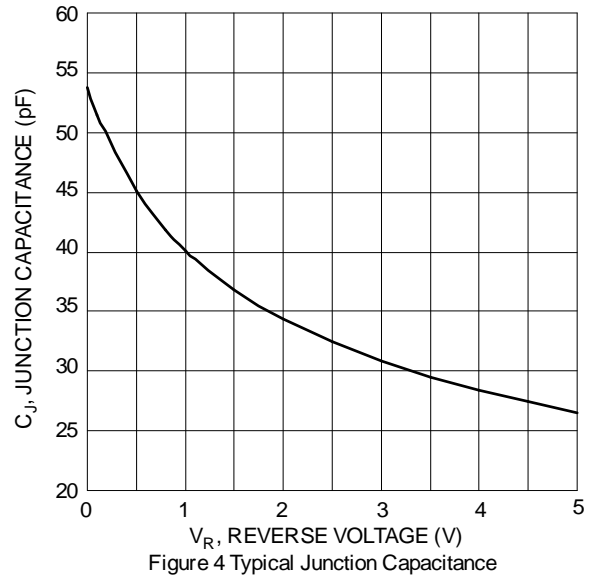
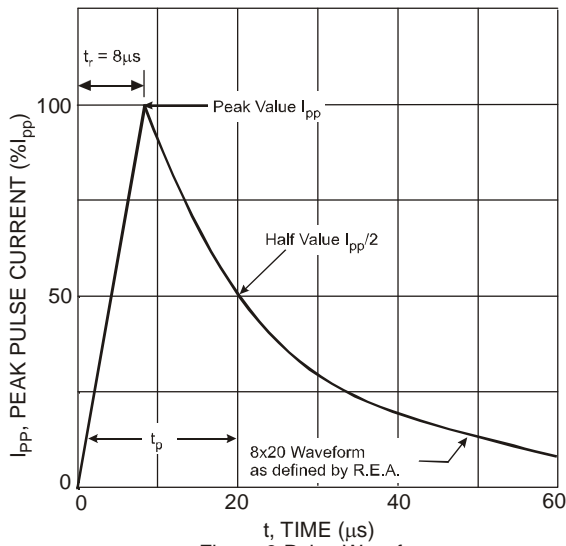
Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P <sub>D</sub>	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	R <sub>θJA</sub>	500	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

**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>	—	—	500	nA	V <sub>RWM</sub> = 5V
Breakdown Voltage	V <sub>BR</sub>	6.2	—	—	V	I <sub>R</sub> = 1mA
Clamping Voltage, Positive Transients	V <sub>CL</sub>	—	—	8	V	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20μS
		—	—	11	V	I <sub>PP</sub> = 10A, t <sub>p</sub> = 8/20μS
ESD Clamping Voltage, Positive Transient, TLP	V <sub>ESD_CLP</sub>	—	8.75	—	V	I <sub>TLP</sub> = 10A, t <sub>p</sub> = 100ns
ESD Clamping Voltage, Negative Transient, TLP	V <sub>ESD_CLN</sub>	—	-2.0	—	V	I <sub>TLP</sub> = -10A, t <sub>p</sub> = 100ns
Differential Resistance	R <sub>DYN</sub>	—	0.15	—	Ω	I <sub>TLP</sub> = 10A to 20A, t <sub>p</sub> = 100ns, I/O to GND
Channel Input Capacitance	C <sub>IN</sub>	—	55	—	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., 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.

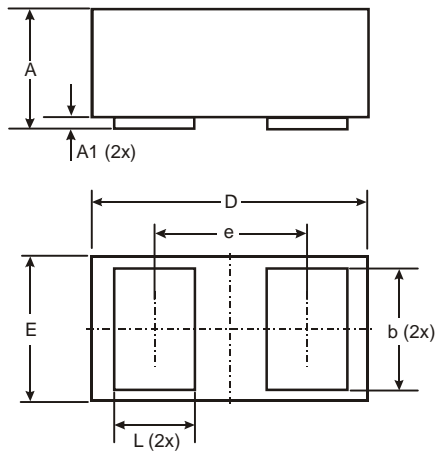




## Package Outline Dimensions

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

### X3-DFN0603-2

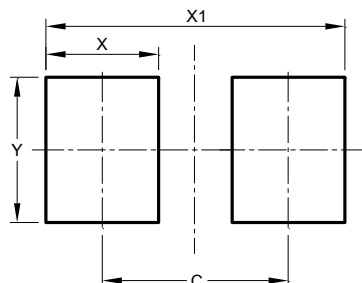


X3-DFN0603-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

## 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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