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

Characteristic	Symbol	Value	Unit	Condition
Peak Pulse Current	I_{PP}	1.5	A	8/20µs (Note 7)
ESD Protection – Contact Discharge	$V_{ESD\_CONTACT}$	±15	kV	Standard IEC61000-4-2
ESD Protection – Air Discharge	V_{ESD_AIR}	±15	kV	Standard IEC61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 7)	P_D	300	mW
Thermal Resistance, Junction to Ambient T_A = +25°C	$R_{\theta JA}$	417	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Standoff Voltage	V_{RWM}	—	—	5.5	V	–
Channel Leakage Current (Note 8)	I_R	—	—	100	nA	V_R = 5V, Any I/O to GND
Reverse Breakdown Voltage	V_{BR}	6.0	—	—	V	I_R = 1mA
Clamping Voltage, Positive Transients (Note 9)	V_C	—	10	12	V	I_{PP} = 1A, t_P = 8/20µs
Channel Input Capacitance (Note 10)	C_T	—	0.5	—	pF	V_R = 0V, f = 1MHz, Any I/O to GND
		—	0.4	0.65		V_R = 2.5V, f = 1MHz, Any I/O to GND
Dynamic Resistance	R_{DYN}	—	0.9	—	Ω	I_{PP} = 1A, t_P = 8/20µs

Notes:
7. 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 at http://www.diodes.com/package-outlines.html.
8. Short duration pulse test used to minimize self-heating effect.
9. Clamping voltage value is based on an 8x20µs peak pulse current (I_{PP}) waveform.
10. Measured from any I/O to GND.

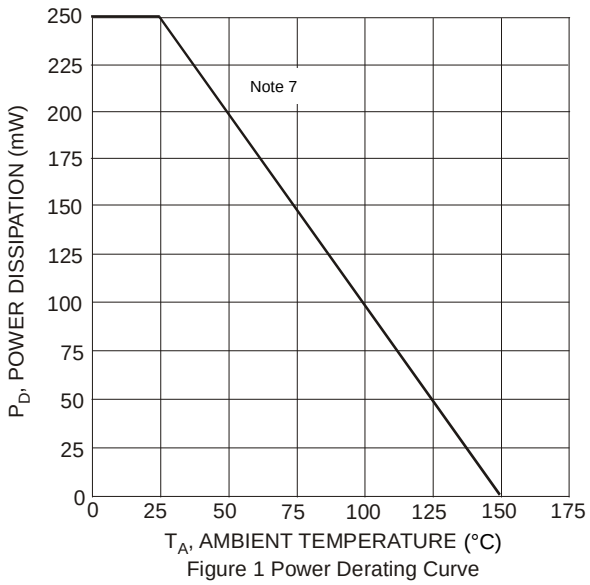


Figure 1 Power Derating Curve

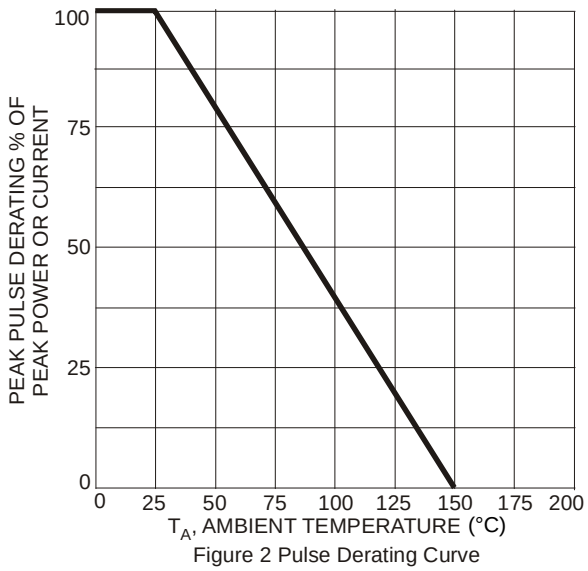


Figure 2 Pulse Derating Curve

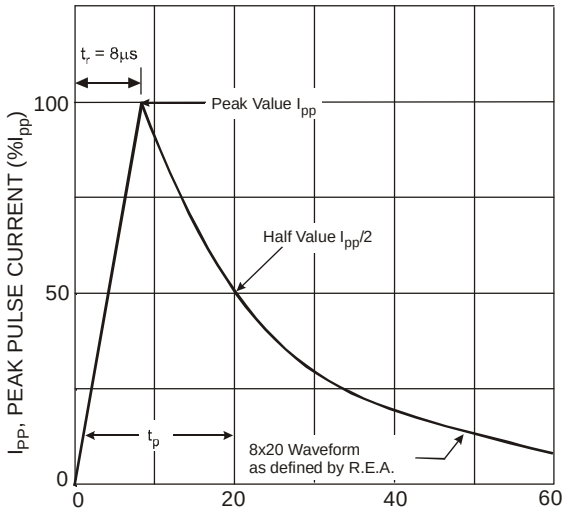


Figure 3 Pulse Waveform

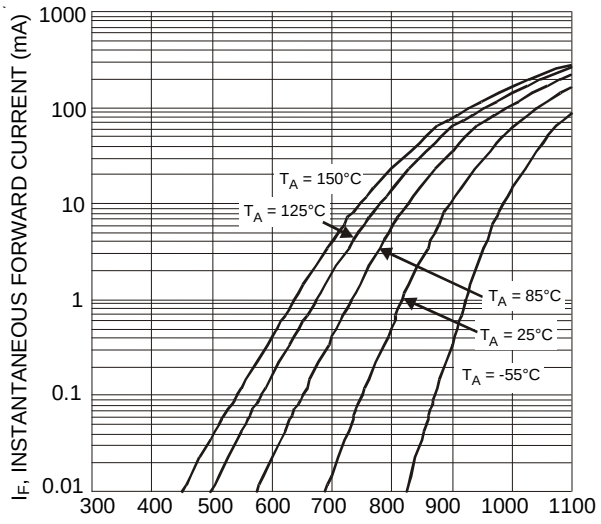


Figure 4 Typical Forward Characteristics

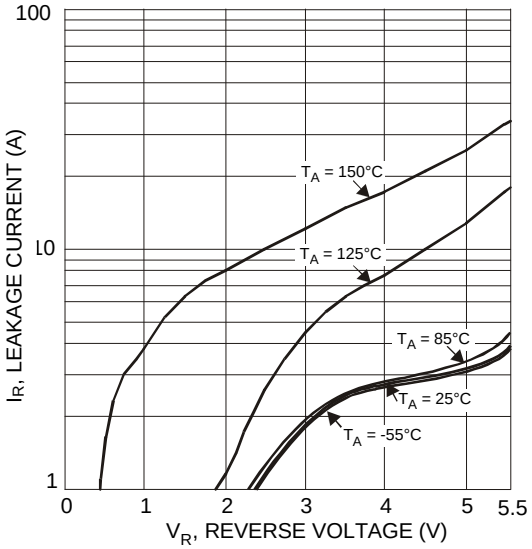


Figure 5 Typical Reverse Characteristics

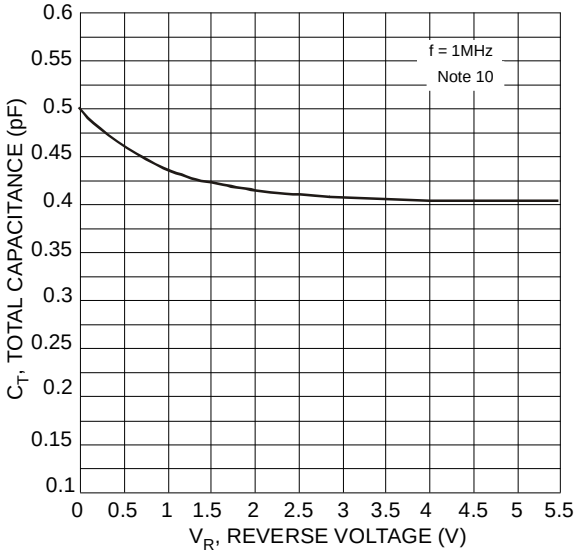
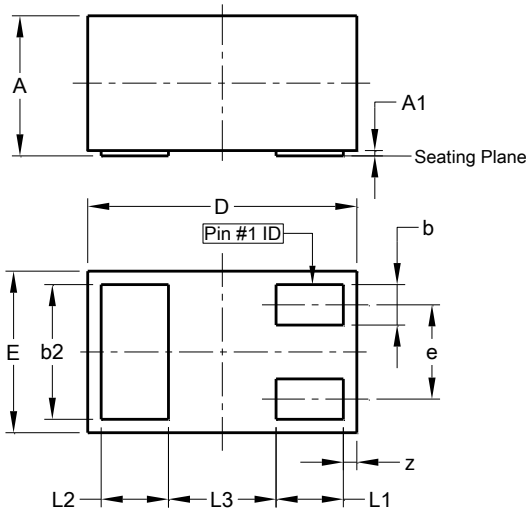


Figure 6 Total Capacitance vs. Reverse Voltage

Package Outline Dimensions

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

X1-DFN1006-3

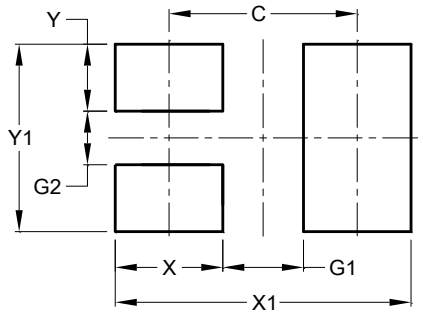


X1-DFN1006-3			
Dim	**Min**	**Max**	**Typ**
A	0.47	0.53	0.50
A1	0.00	0.05	0.03
b	0.10	0.20	0.15
b2	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.35
L1	0.20	0.30	0.25
L2	0.20	0.30	0.25
L3	-	-	0.40
z	0.02	0.08	0.05
All Dimensions in mm			

Suggested Pad Layout

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

X1-DFN1006-3



Dimensions	Value (in mm)
C	0.70
G1	0.30
G2	0.20
X	0.40
X1	1.10
Y	0.25
Y1	0.70

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