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

Characteristic	Symbol	Value	Unit	Conditions
Operating Supply Voltage	V_P - V_N	6.0	V	—
DC Voltage at Any Channel Input	—	(V_N – 0.5) to (V_P + 0.5)	V	—
Peak Pulse Current	I_{PP}	5.0	A	8/20µs, Per Figure 3
ESD Protection – Contact Discharge	$V_{ESD\_CONTACT}$	±8	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V_{ESD_AIR}	±15	kV	IEC 61000-4-2 Standard

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_D	200	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	625	°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 Conditions
Operating Supply Voltage	V_P	—	3.3	5.5	V	—
Operating Supply Current (Note 6)	I_P	—	—	8.0	µA	(V_P – V_N) = 3.3V
Channel Leakage Current (Note 6)	I_R	—	0.1	1.0	µA	V_P = 5V, V_N = 0V
Reverse Breakdown Voltage	V_{BR}	6.0	—	—	V	I_R = 1mA
Clamping Voltage, Positive Transients	V_{CL1}	—	10.0	—	V	I_{PP} = 1A (Note 7)
Clamping Voltage, Negative Transients	V_{CL2}	—	-1.7	—	V	I_{PP} = -1A (Note 7)
Forward Voltage for Top Diode	V_{FD1}	0.60	0.80	0.95	V	I_F = 8mA, any channel to V_P
Forward Voltage for Bottom Diode	V_{FD2}	0.60	0.80	0.95	V	I_F = 8mA, V_N to any channel
Dynamic Resistance	R_{DYN}	—	0.9	—	Ω	I_{PP} = 1A (Note 7)
Channel Input Capacitance	C_T	—	0.85	1.2	pF	V_{IN} = 1.65V, V_P = 3.3V, V_N = 0V, f = 1MHz

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 at http://www.diodes.com/package-outlines.html.
6. Short duration pulse test used to minimize self-heating effect.
7. Clamping voltage value is based on an 8x20µs peak pulse current (I_{pp}) waveform.
8. Measured from any channel to V_N.
9. Measured from V_P to V_N.
10. For information on the impact of Diodes Incorporated's USB 2.0 compatible ESD protectors on signal integrity including eye diagram plots, please refer to AN77 at the following URL: http://www.diodes.com/destools/appnote_dnote.html.

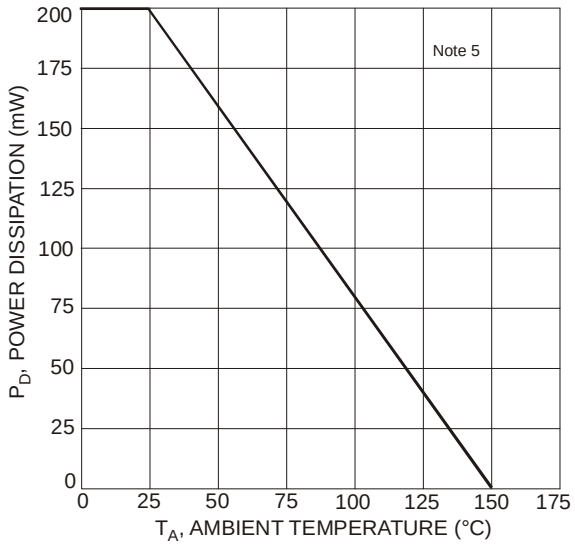

Figure 1 Power Derating Curve

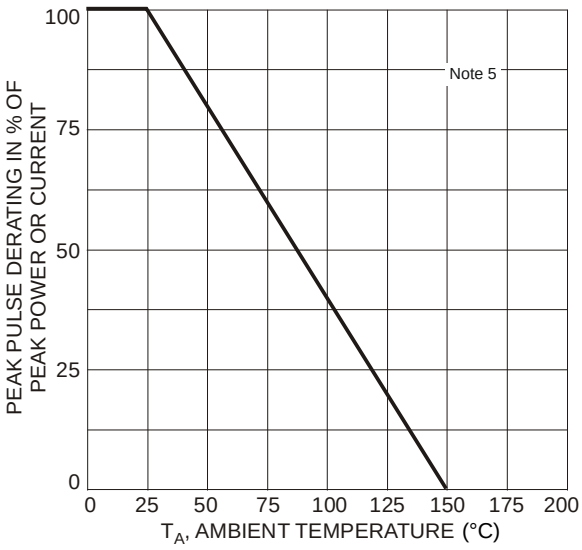

Figure 2 Pulse Derating Curve

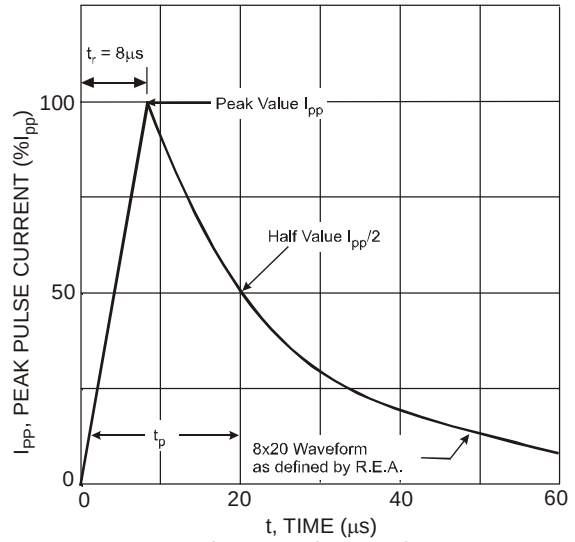

Figure 3 Pulse Waveform

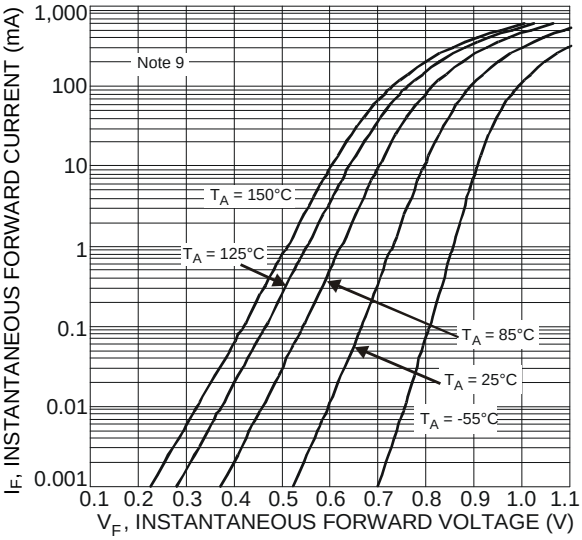

Figure 4 Typical Forward Characteristics

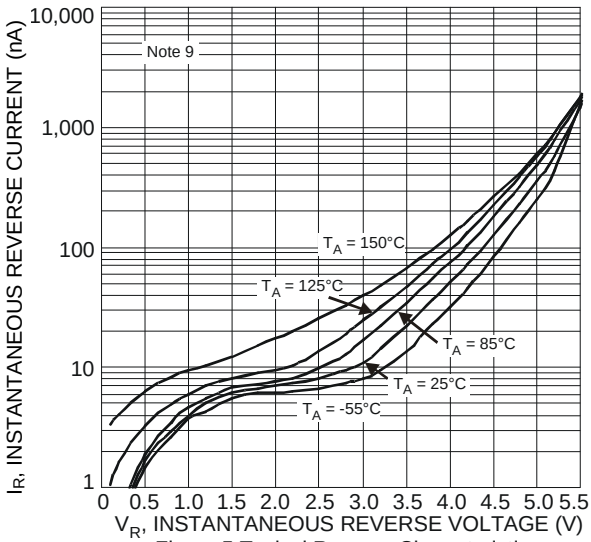

Figure 5 Typical Reverse Characteristics

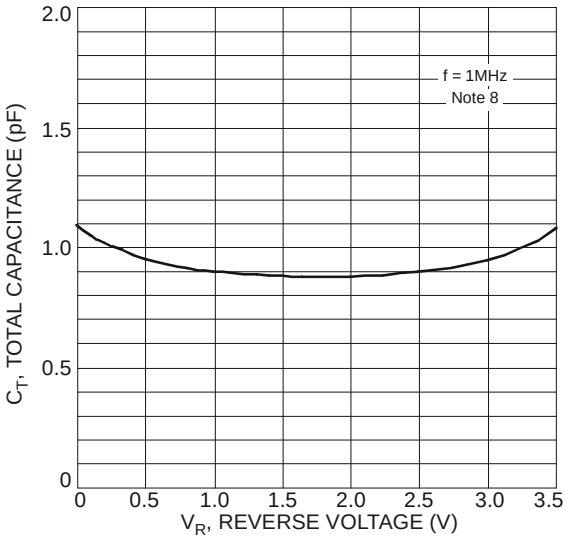

Figure 6 Typical Total Capacitance vs. Reverse Voltage

Package Outline Dimensions

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

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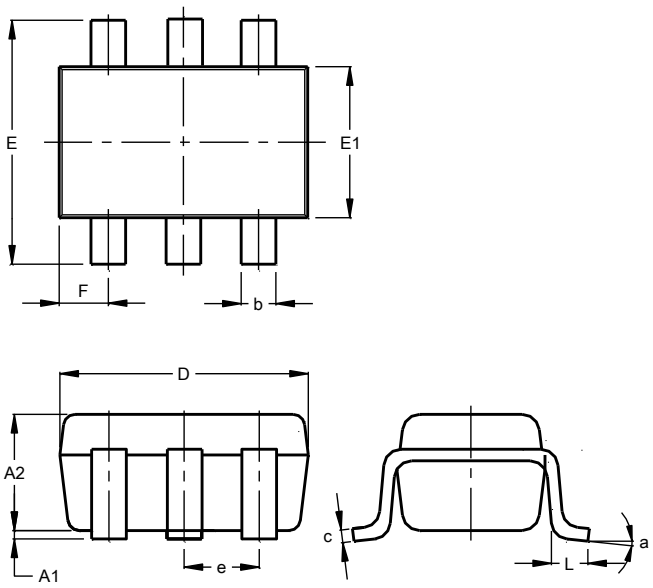

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Dim	**Min**	**Max**	**Typ**
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.10	0.30	0.25
c	0.10	0.22	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
F	0.40	0.45	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

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

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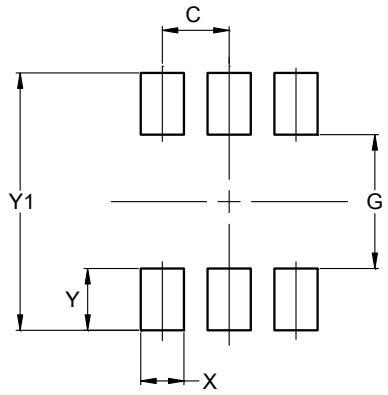

Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.420
Y	0.600
Y1	2.500

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