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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Current	I_{PP}	5	A	8/20µs, Per Figure 3
ESD Protection – Contact Discharge	$V_{ESD\_Contact}$	±25	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V_{ESD_Air}	±30	kV	Standard IEC 61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_D	300	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\Theta JA}$	417	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V_{RWM}	—	—	5.5	V	—
Channel Leakage Current (Note 6, 7)	I_R	—	1	100	nA	V_R = 3V
Reverse breakdown voltage	V_{BR}	6.0	—	9.0	V	I_R = 1mA, from pin 5 to pin 2
Forward Voltage	V_F	—	0.8	—	V	I_F = 8mA
Clamping Voltage, Positive Transients	V_{CL1}	—	10.0	—	V	I_{PP} = 1A, t_p = 8/20µs, I/O to GND
Clamping Voltage, Negative Transients	V_{CL2}	—	-1.7	—	V	I_{PP} = -1A, t_p = 8/20µs, I/O to GND
Clamping Voltage, Positive Transients	V_{CL1}	—	14.5	—	V	I_{PP} = 5A, t_p = 8/20µs, I/O to GND
Clamping Voltage, Negative Transients	V_{CL2}	—	-5.0	—	V	I_{PP} = -5A, t_p = 8/20µs, I/O to GND
Dynamic Resistance	R_{DYN}	—	0.9	—	Ω	I_{PP} = 1A, t_p = 8/20µs
I/O to GND Capacitance	$C_{(I/O-GND)}$	—	1.0	1.5	pF	$V_{(I/O-GND)}$ = 0V, f = 1MHz
I/O to I/O Capacitance	$C_{(I/O-I/O)}$	—	0.6	—	pF	$V_{(I/O-I/O)}$ = 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. Measured from pin 1, 3, 4, 5 and 6 to GND.
8. For information on the impact of Diodes' 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

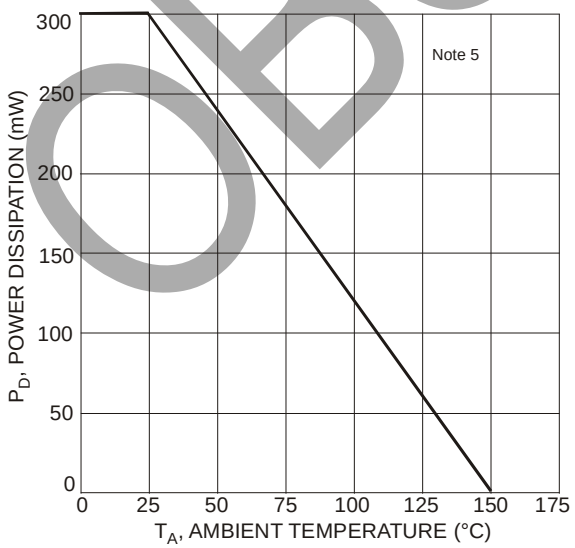


Figure 1 Power Derating Curve

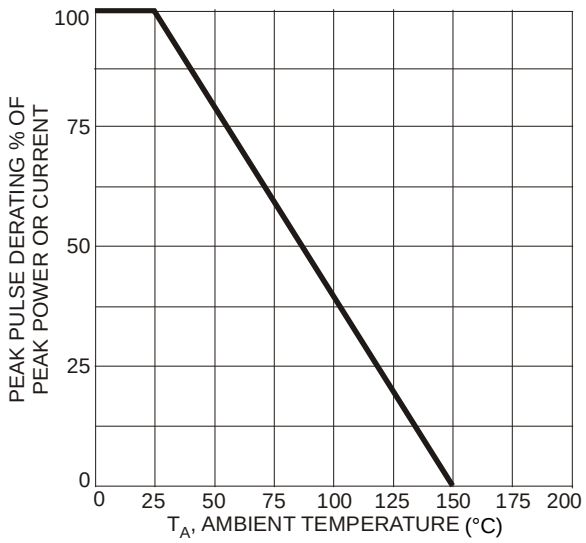


Figure 2 Pulse Derating Curve

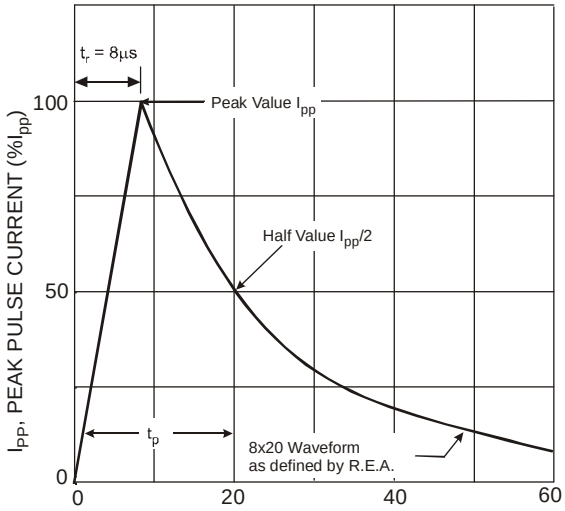


Figure 3 Pulse Waveform

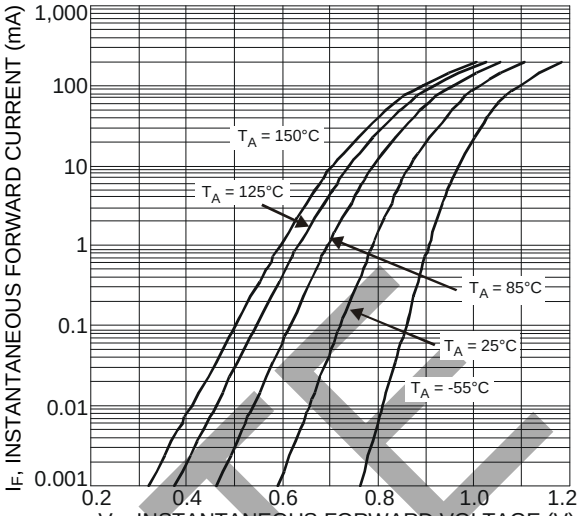


Figure 4 Typical Forward Characteristics

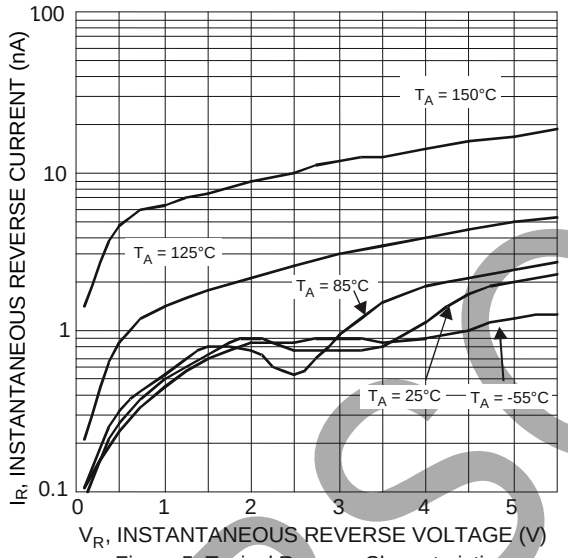


Figure 5 Typical Reverse Characteristics

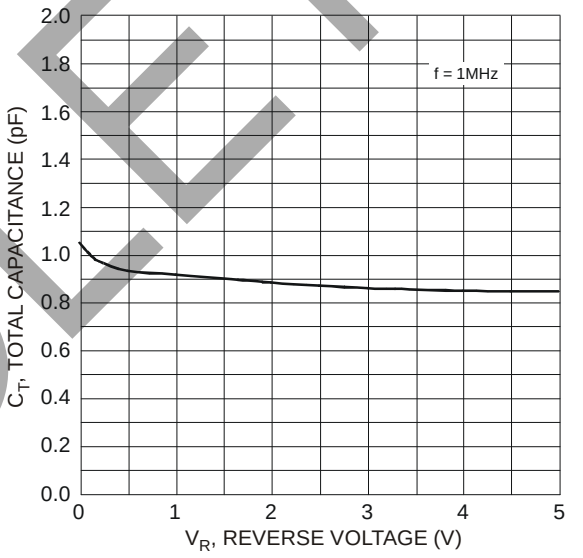


Figure 6 Typical Total Capacitance vs. Reverse Voltage

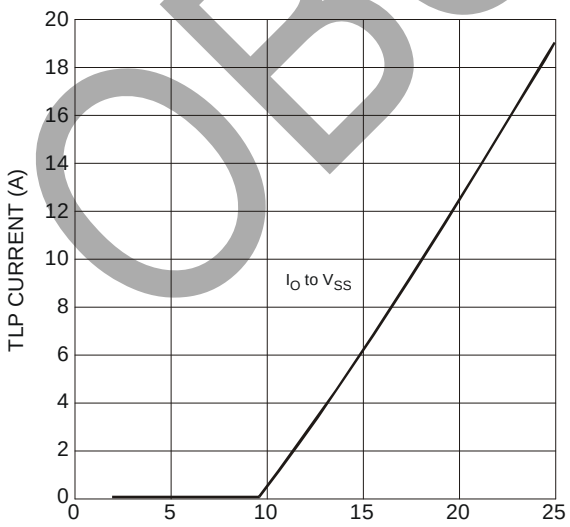
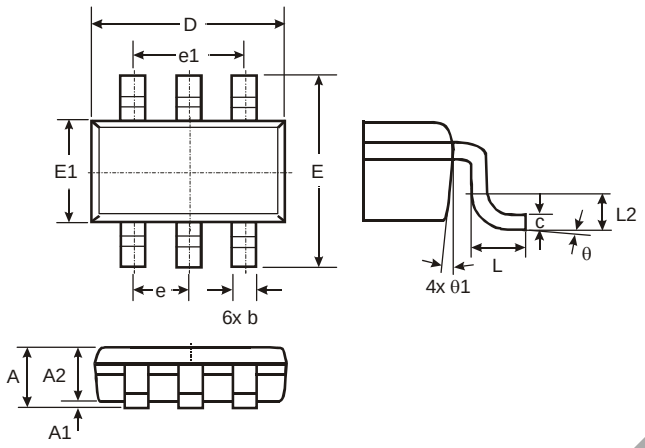


Figure 7 Transmission Line Pulsing (TLP) Current vs. Voltage

Package Outline Dimensions

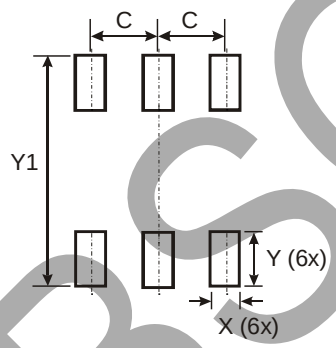
Please see http://www.diodes.com/package-outlines.html for the latest version.



TSOT26			
Dim	Min	Max	Typ
A	–	1.00	–
A1	0.01	0.10	–
A2	0.84	0.90	–
D	–	–	2.90
E	–	–	2.80
E1	–	–	1.60
b	0.30	0.45	–
c	0.12	0.20	–
e	–	–	0.95
e1	–	–	1.90
L	0.30	0.50	
L2	–	–	0.25
θ	0°	8°	4°
θ1	4°	12°	–
All Dimensions in mm			

Suggested Pad Layout

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



Dimensions	Value (in mm)
C	0.950
X	0.700
Y	1.000
Y1	3.199

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