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

Characteristic	Symbol	Value	Unit	Condition
Peak Pulse Current, per IEC61000-4-5	I_{PP}	5	A	I/O to V_{SS}, 8/20µs
Peak Pulse Power, per IEC61000-4-5	P_{PP}	30	W	I/O to V_{SS}, 8/20µs
ESD Protection – Contact Discharge, per IEC61000-4-2	$V_{ESD\_CONTACT}$	±12	kV	I/O to V_{SS}
ESD Protection – Air Discharge, per IEC61000-4-2	V_{ESD_AIR}	±12	kV	I/O to V_{SS}

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation Typical (Note 5)	P_D	350	mW
Thermal Resistance, Junction to Ambient Typical (Note 5)	$R_{\theta JA}$	360	°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 Working Voltage	V_{RWM}	—	—	3.3	V	—
Reverse Current	I_R	—	—	1.0	µA	V_R = 3.3V, I/O to V_{SS}
Reverse Breakdown Voltage	V_{BR}	5.5	6.2	—	V	I_R = 1mA, I/O to V_{SS}
Forward Clamping Voltage	V_F	-1.0	-0.85	—	V	I_F = -15mA, I/O to V_{SS}
Holding Reverse Voltage	V_{HOLD}	—	1.3	—	V	I/O to V_{SS}
Reverse Clamping Voltage (Note 6)	V_C	—	3.5	—	V	I_{PP} = 5A, I/O to V_{SS}, 8/20µs
Clamping Voltage (Note 7)	V_C	—	5	—	V	TLP, 16A, t_P = 100ns, I/O to V_{SS}
Clamping Voltage (Note 7)	V_C	—	5	—	V	TLP, -16A, t_P = 100ns, I/O to V_{SS}
Dynamic Reverse Resistance	R_{DIF-R}	—	0.25	—	Ω	TLP, 10A, t_P = 100ns, I/O to V_{SS}
Dynamic Forward Resistance	R_{DIF-F}	—	0.2	—	Ω	TLP, 10A, t_P = 100ns, V_{SS} to I/O
Channel Input Capacitance	$C_{I/O}$	—	0.5	—	pF	$V_{I/O}$ = 0V, V_{SS} = 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. Clamping voltage value is based on an 8x20µs peak pulse current (I_{PP}) waveform.

7. Clamping voltage value is based on a TLP model. TLP conditions: Z_O=50Ω, t_P = 100ns, t_P = 1ns, averageing window; t1=70ns to t2=90ns.

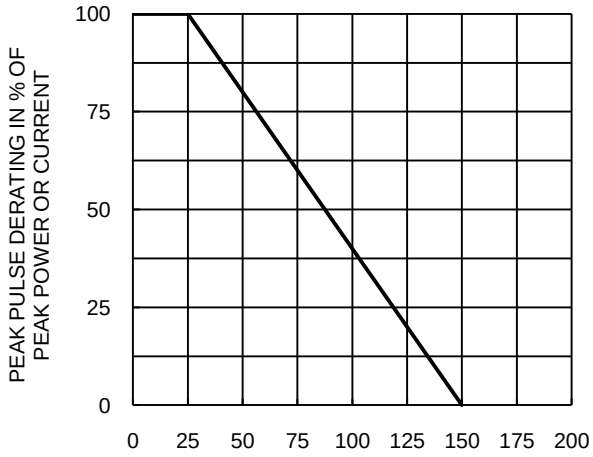


Figure 1. Pulse Derating Curve

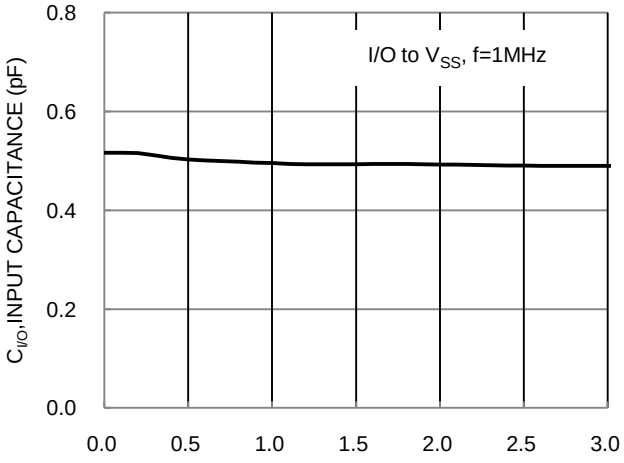


Figure 2. Input Capacitance vs. Input Voltage

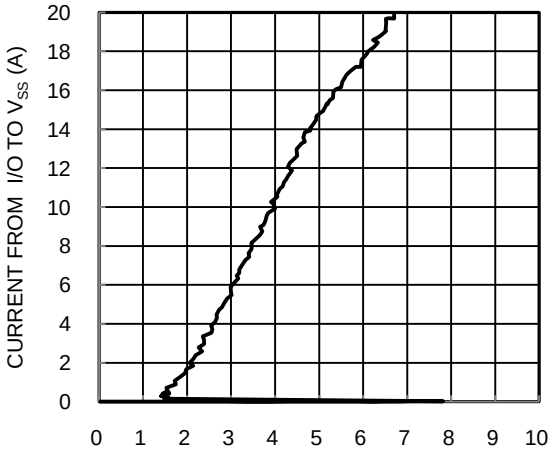
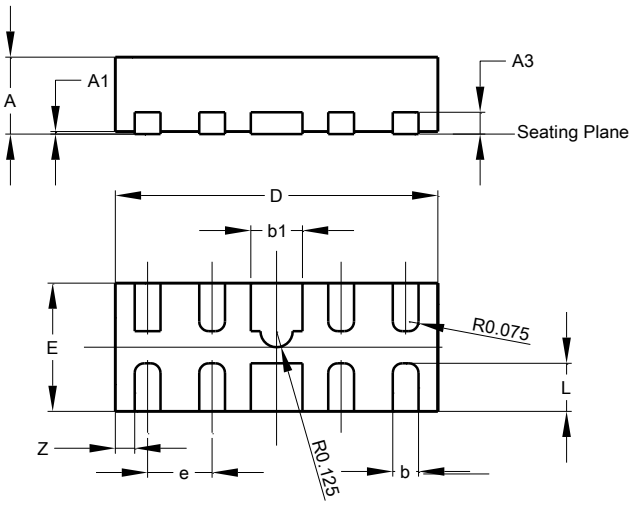


Figure 3. Current vs. Voltage

Package Outline Dimensions

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

U-DFN2510-10

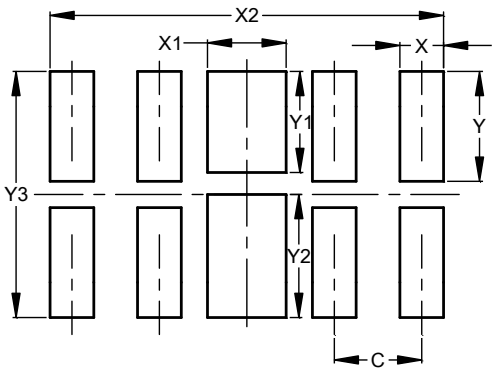


U-DFN2510-10			
Dim	**Min**	**Max**	**Typ**
A	0.545	0.605	0.575
A1	0.00	0.05	0.03
A3	-	-	0.13
b	0.15	0.25	0.20
b1	035	0.45	0.40
D	2.450	2.575	2.500
e	-	-	0.50
E	0.950	1.075	1.000
L	0.325	0.425	0.375
Z	-	-	0.150
All Dimensions in mm			

Suggested Pad Layout

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

U-DFN2510-10



Dimensions	Value (in mm)
C	0.500
X	0.250
X1	0.450
X2	2.250
Y	0.625
Y1	0.575
Y2	0.700
Y3	1.400

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