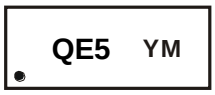
Marking Information



QE5 = Product Type Marking Code
YM = Date Code Marking
Y = Year (ex: I = 2021)
M = Month (ex: 9 = September)

QE5 = Product Type Marking Code
YWX = Date Code Marking
Y = Year (ex: 1 = 2021)
W = Week
(ex: a = Week 27; z Represents Week 52 and 53)
X = Internal Code (ex: U = Monday)

Date Code Key for YM

Year	2016	…	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Code	D	…	I	J	K	L	M	N	O	P	R	S

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Date Code Key for YWX

Year	2016	…	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Code	6	…	1	2	3	4	5	6	7	8	9	0

Week	1-26	27-52	53
Code	A-Z	a-z	z

Internal Code	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Code	T	U	V	W	X	Y	Z

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

Characteristic	Symbol	Value	Unit	Condition
Peak Pulse Current, per IEC 61000-4-5	I_{PP}	5.5	A	I/O to V_{SS}, 8/20µs
Peak Pulse Power, per IEC 61000-4-5	P_{PP}	52	W	I/O to V_{SS}, 8/20µs
Operating Voltage (DC)	V_{DC}	3.6	V	I/O to V_{SS}
ESD Protection – Contact Discharge, per IEC 61000-4-2	$V_{ESD\_CONTACT}$	±14	kV	I/O to V_{SS}
ESD Protection – Air Discharge, per IEC 61000-4-2	V_{ESD_AIR}	±16	kV	I/O to V_{SS}
Operating Temperature	T_{OP}	-55 to +85	°C	—
Storage Temperature	T_{STG}	-55 to +150	°C	—

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

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	—	—	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}
Reverse Clamping Voltage (Note 6)	V_C	—	8.2	9.5	V	I_{PP} = 5.5A, I/O to V_{SS}, 8/20µs
ESD Clamping Voltage	V_{ESD}	—	7.5	—	V	TLP, 10A, t_P = 100ns, I/O to V_{SS}
Dynamic Reverse Resistance	R_{DIF-R}	—	0.2	—	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	$C_{I/O}$	—	0.55	0.65	pF	$V_{I/O}$ = 2.5V, V_{SS} = 0V, f = 1MHz
Delta $C_{I/O}$	$C_{I/OMAX}$-$C_{I/OMIN}$	—	0.04	—	pF	$C_{I/OMAX}$-$C_{I/OMIN}$

Notes: 5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes Incorporated's website at http://www.diodes.com/package-outlines.html.
6. Clamping voltage value is based on an 8µs x20µs peak pulse current (I_{PP}) waveform.

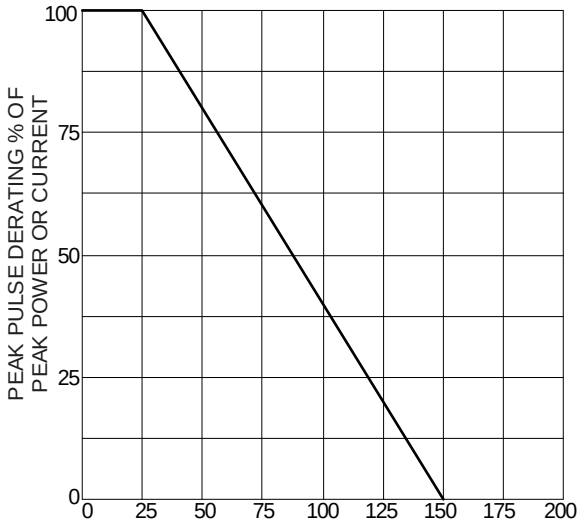


Figure 1 Pulse Derating Curve

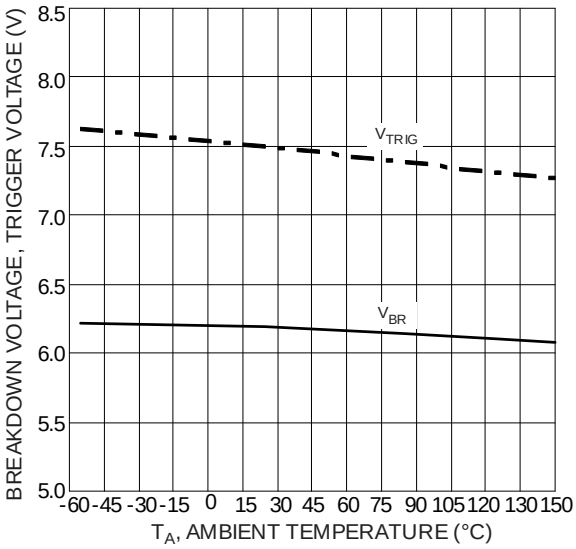


Figure 2 V_{BR}, Trigger Voltage vs. Ambient Temperature

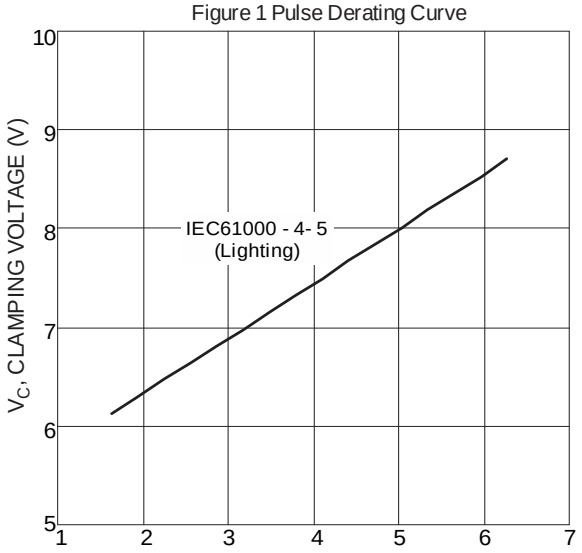


Figure 3 Clamping Voltage Characteristic

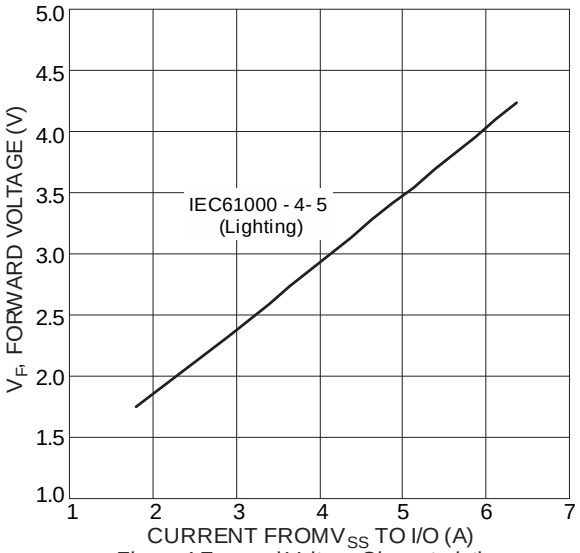


Figure 4 Forward Voltage Characteristic

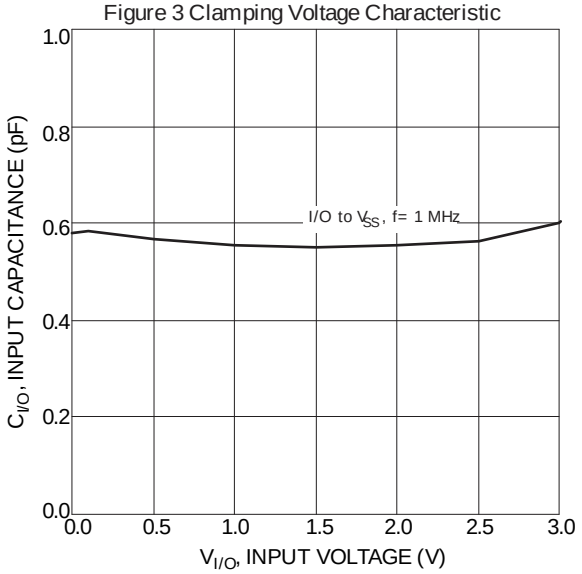


Figure 5 Input Capacitance vs. Input Voltage

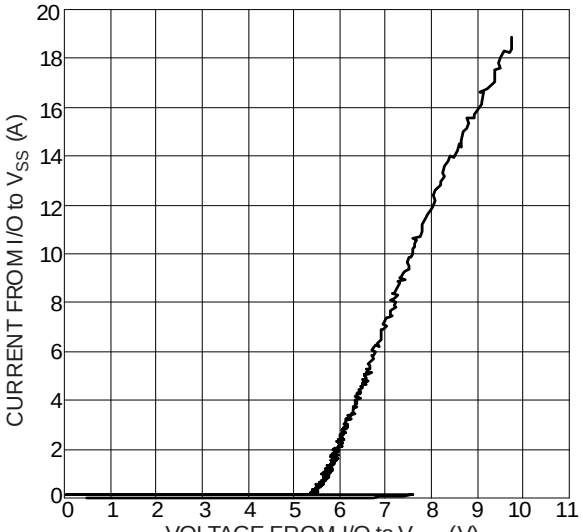
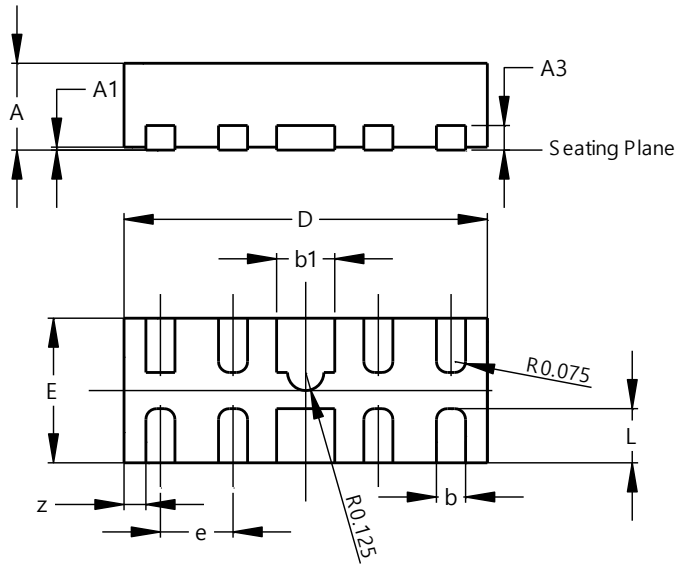


Figure 6 Current vs. Voltage

Package Outline Dimensions

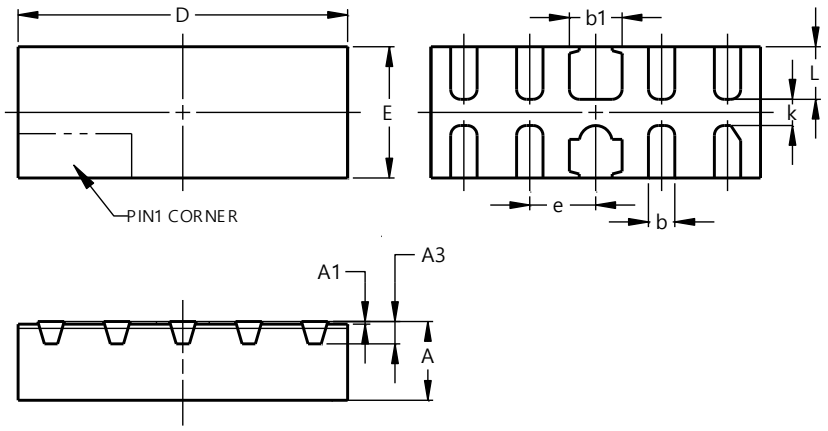
Please see http://www.diodes.com/package-outlines.html for the latest version.

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	0.35	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			

U-DFN2510-10 (Type CJ)

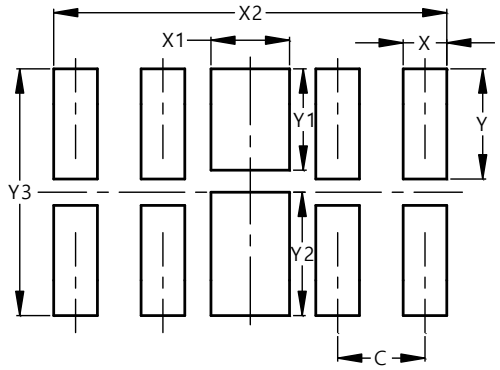


U-DFN2510-10 (Type CJ)			
Dim	**Min**	**Max**	**Typ**
A	0.545	0.605	--
A1	0.00	0.05	--
A3	0.152REF		
b	0.150	0.250	--
b1	0.350	0.450	--
D	2.450	2.575	--
E	0.950	1.075	--
e	--	--	0.500
E	0.950	1.075	1.000
L	0.350	0.450	--
k	0.200REF		
All Dimensions in mm			

Suggested Pad Layout

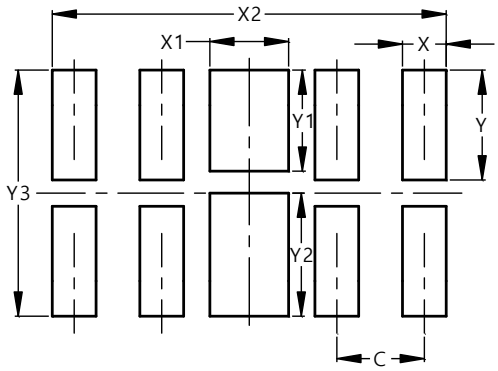
Please see http://www.diodes.com/package-outlines.html for the latest version.

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

U-DFN2510-10 (Type CJ)



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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