



DWUC10F3V4U-Q ESD Protection Diode

Feature

- Uni-directional ESD protection of four lines
- 91W Peak pulse Power (8/20us)
- Working voltage: 3.3V
- Junction Capacitance: 0.3pF(Typ I/O to I/O)
- Low clamping voltage
- Low leakage current
- AEC-Q101 qualified
- IEC 61000-4-2 $\pm 12\text{kV}$ contact $\pm 17\text{kV}$ air
- IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- IEC 61000-4-4 (E FT) 40A (5/50ns)

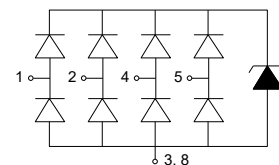
Application

- HDMI/USB2.0
- Monitors and flat panel displays
- 10/100/1000 ethernet
- Notebook computers
- SIM ports
- ATM interface

Mechanical Data

- Package: DFN2510-10L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWUC10F3V4U-Q	DFN2510-10L		3000 pcs	7 inches



Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

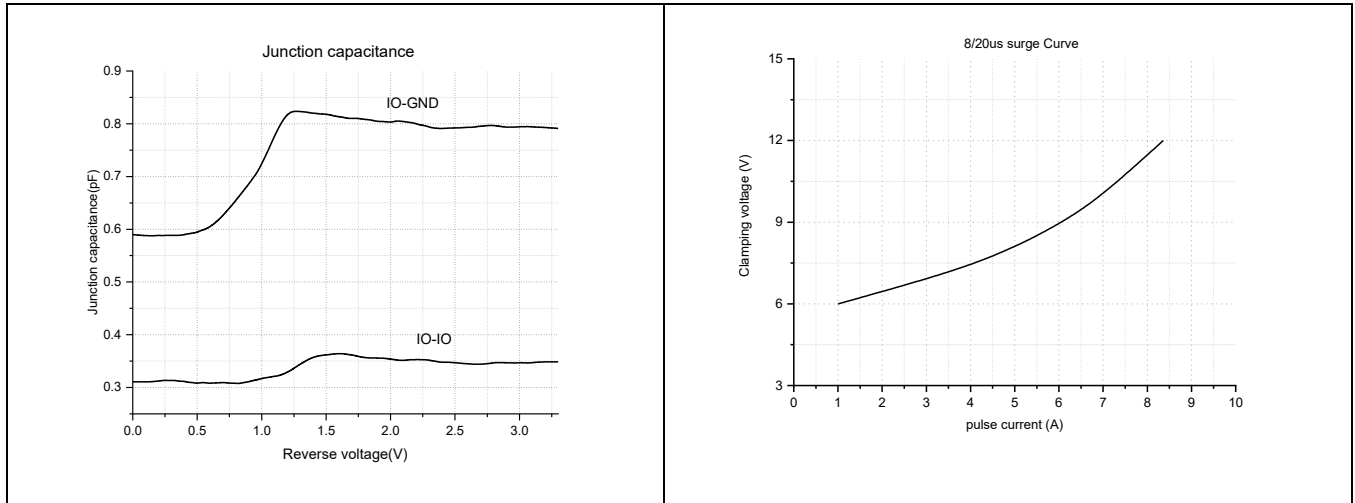
Parameter	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)@ 25°C	P_{pk}	-	91	W
Peak pulse current ($t_p=8/20\mu\text{s}$)@ 25°C	I_{PP}		7	A
ESD (IEC61000-4-2 air discharge) @ 25°C	V_{ESD}	-	17	kV
ESD (IEC61000-4-2 contact discharge) @ 25°C	V_{ESD}	-	12	kV
Junction temperature	T_J	-	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40	125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55	150	$^{\circ}\text{C}$
Lead temperature	T_L	-	260	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

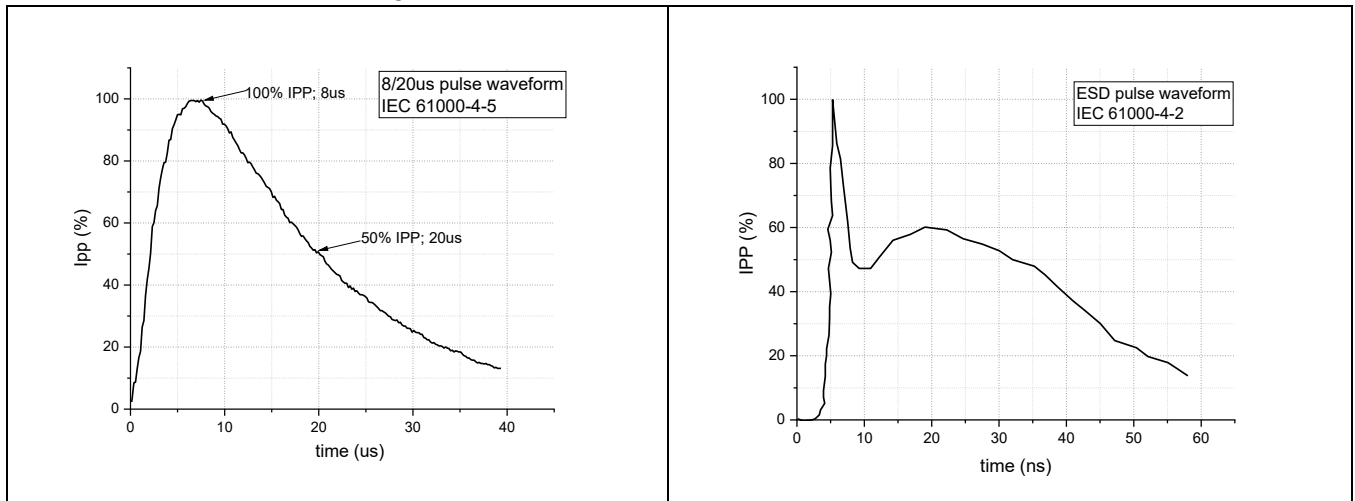
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	4			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$			1	μA
Holding Voltage	V_C	$I_{PP}=1\text{A}$; $t_p=8/20\mu\text{s}$		6	9	V
Clamping Voltage	V_C	$I_{PP}=7\text{A}$; $t_p=8/20\mu\text{s}$		10	13	V
Junction Capacitance	C_J	I/O to GND; $V_R=0\text{V}$; $f=1\text{MHz}$		0.6	1.0	pF
Junction Capacitance	C_J	I/O to I/O; $V_R=0\text{V}$; $f=1\text{MHz}$		0.3	0.5	pF



Typical Characteristics



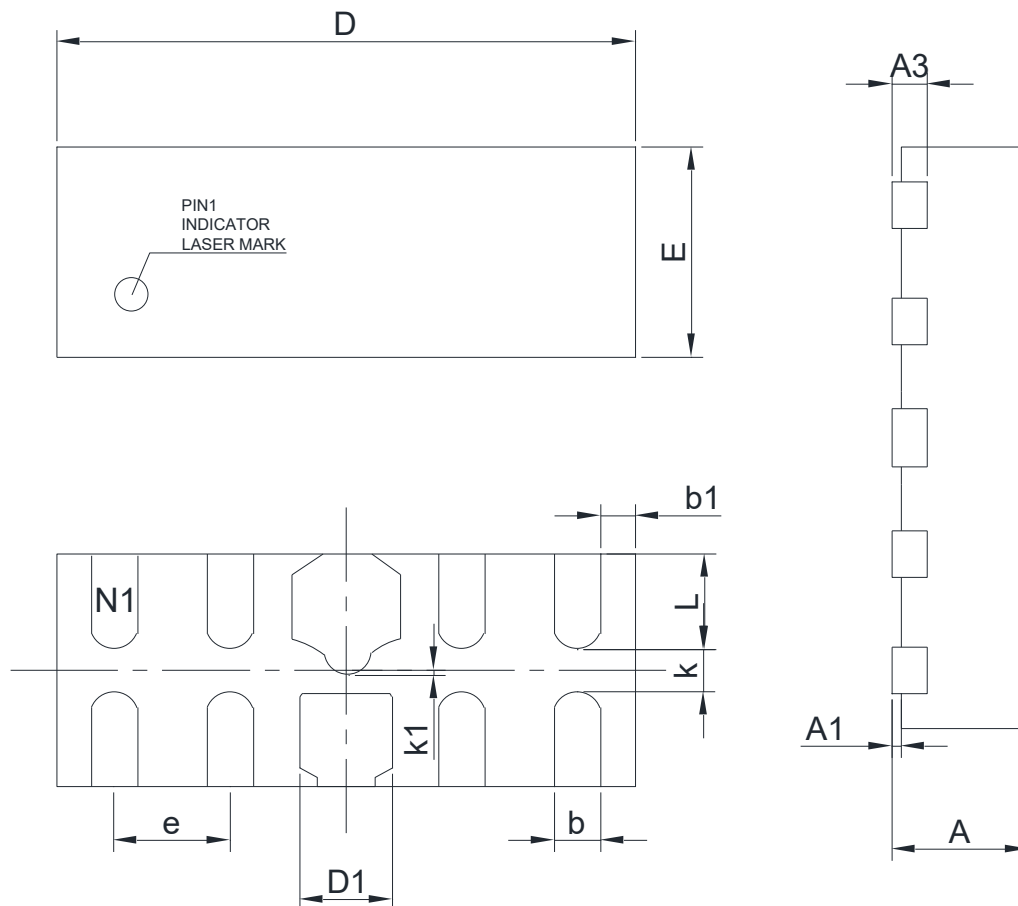
Measurement Wave According to IEC Standard





DFN2510-10L Dimension

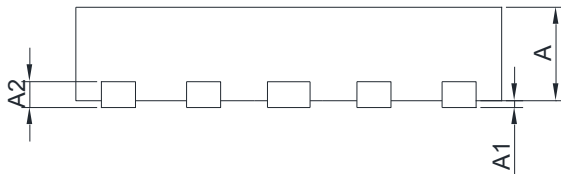
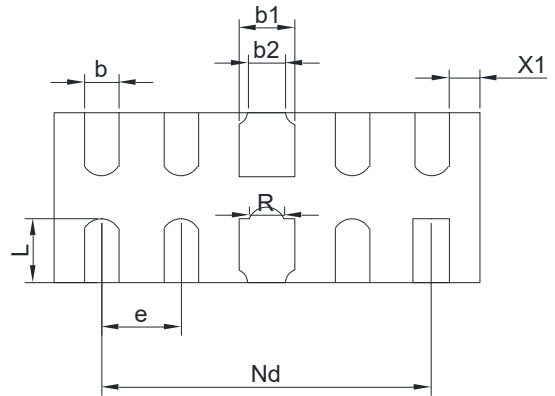
POD A(C)



Dimensions in Millimeter							
Symbol	Min.	Nom.	Max.	Symbol	Min.	Nom.	Max.
A	0.450	0.500	0.550	D	2.450	2.500	2.550
A1	0.000	0.025	0.050	E	0.950	1.000	1.050
A3	0.110 REF			e	0.500 TYP		
b	0.180	0.220	0.260	k1	0.060	0.080	0.100
b1	0.100	0.150	0.200	L	0.350	0.400	0.450
D1	0.350	0.400	0.450	K	0.210	0.220	0.230



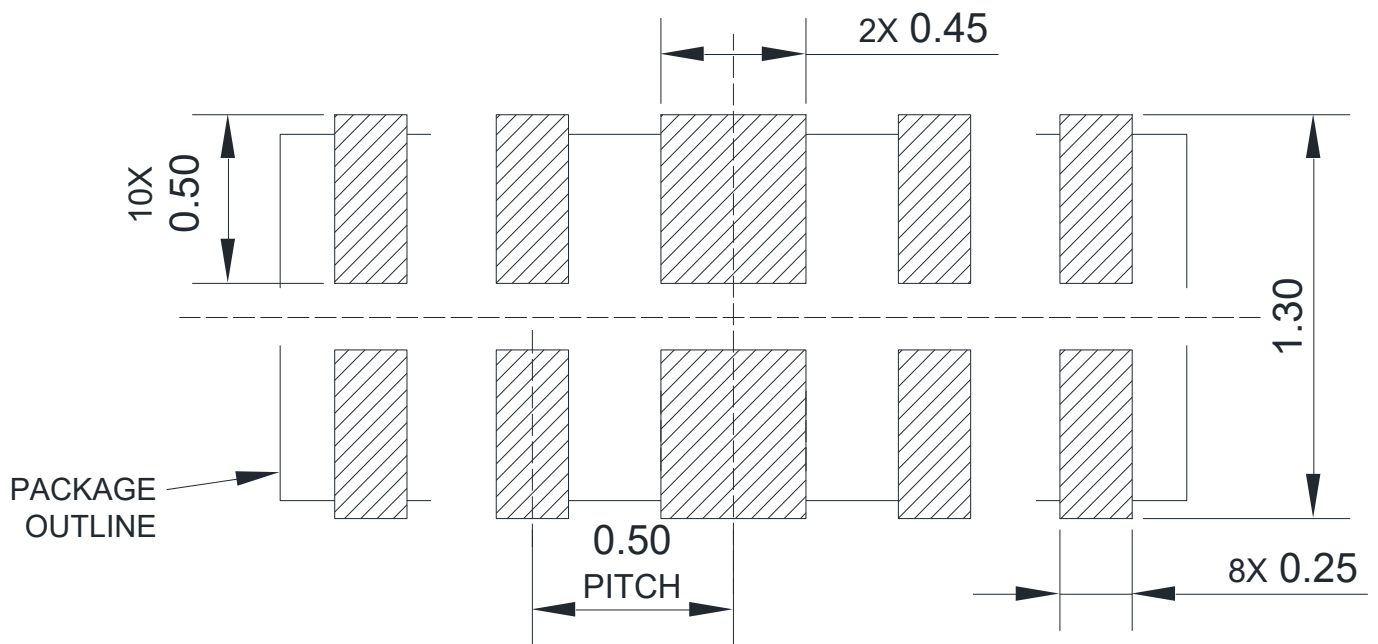
POD B(A)



Dimensions in Millimeter(mm)					
SYMBOL	MIN	MAX	SYMBOL	MIN	MAX
A	0.50	0.60	b2	0.20REF	
A1	0.00	0.05	D	2.45	2.55
A2	0.15REF		E	0.95	1.05
b	0.15	0.25	L	0.33	0.43
b1	0.35	0.45	e	0.50BSC	
Nd	2.00BSC		X1	0.08	0.22



Recommended Soldering Footprint



DIMENSIONS: MILLIMETERS