



DWSUC0324PG ESD Protection Diode

Feature

- Uni-directional configurations
- 75Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 3.3V
- Junction Capacitance: 0.3pF(Typ I/O to I/O)
- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 $\pm 20kV$ contact $\pm 22kV$ air
- IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- IEC61000-4-4(EFT) 40A (5/50ns)

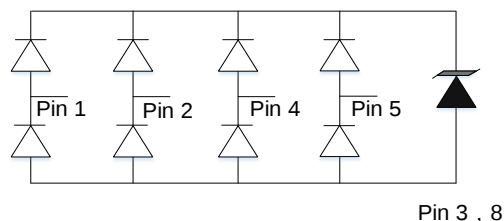
Application

- Digital Visual Interface(DVI)
- HDMI1.3,HDMI1.4 and HDMI2.0
- PCI express
- Notebooks, Desktops, and Servers
- SATA interfaces

Mechanical Data

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

Schematic & PIN Configuration



Pin 3 , 8

Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWSUC0324PG	DFN2510-10L		3000 pcs	7 inches

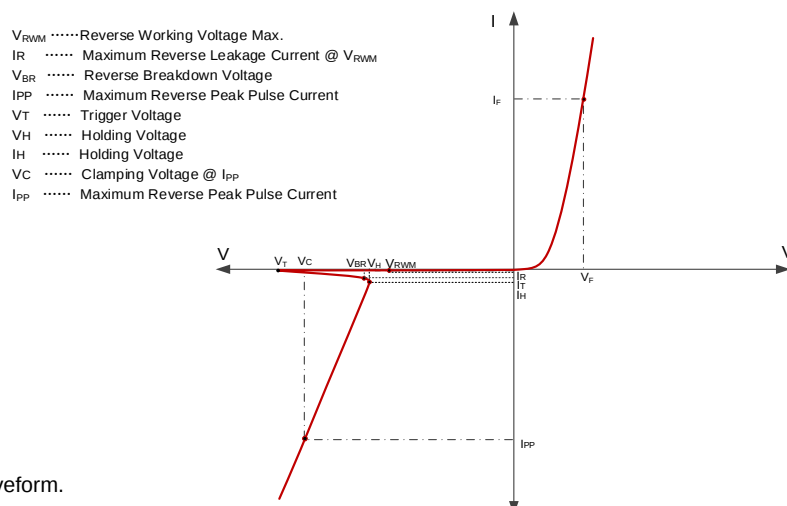
Absolute Maximum Rating ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	75	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) (note1)	I_{pp}	7	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 22 ± 20	kV
Lead Soldering Temperature	T_L	260 (10seconds)	$^\circ\text{C}$
Junction Temperature	T_J	-55 to + 125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to + 125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	I/O Pin to GND			3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$, $T = 25^\circ\text{C}$ I/O Pin to GND	4.0			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$, $T = 25^\circ\text{C}$			0.5	μA
Holding Voltage	V_H	$I_H = 10\text{mA}$	4.0			V
Forward Voltage	V_F	$I_F = 10\text{mA}$ GND to I/O Pin	0.6		1.2	V
Clamping Voltage	V_C	$I_{PP} = 7\text{A}$, $t_p = 8/20\mu\text{s}$ I/O Pin to GND		8.5	11	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$ I/O to I/O		0.3	0.4	pF
		$V_R = 0\text{V}$, $f = 1\text{MHz}$ I/O to GND		0.6	0.8	pF

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

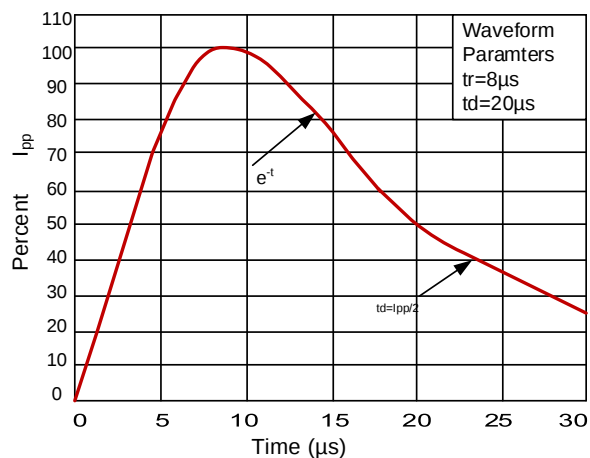


Note1: 8/20 μs pulse waveform.

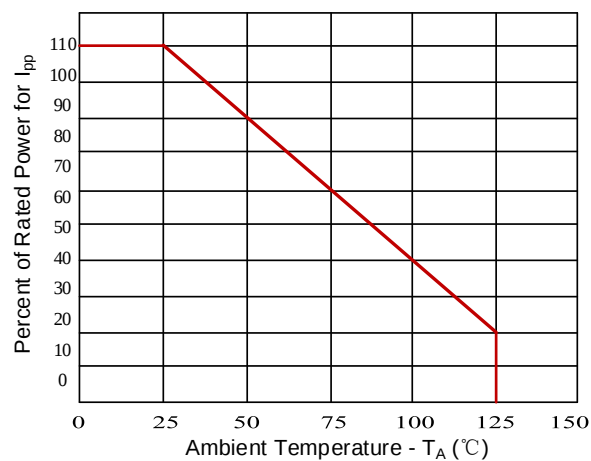


Typical Characteristic ($T_A = 25^\circ\text{C}$ unless otherwise noted)

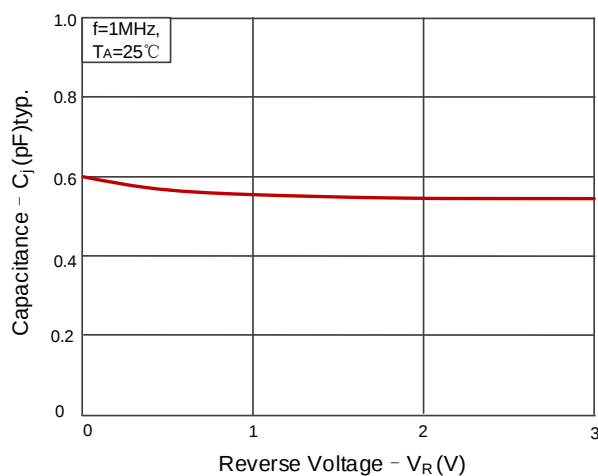
8/20 μs Pulse Waveform



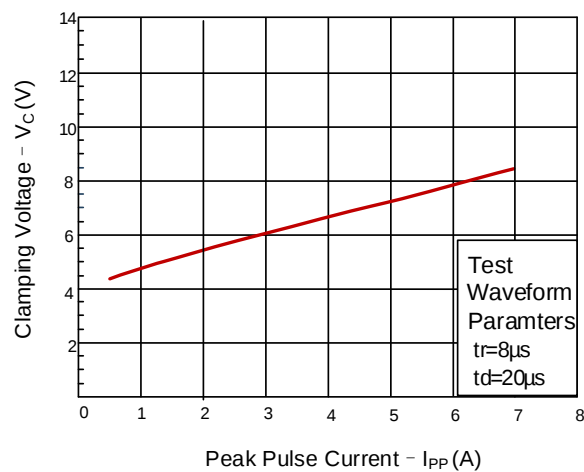
Power Derating Curve



Capacitance vs. Reverse Voltage

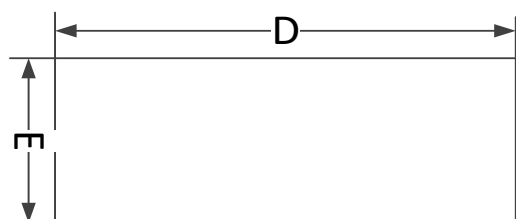


Clamping Voltage vs. I_{pp}

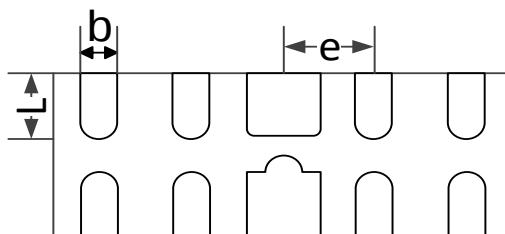




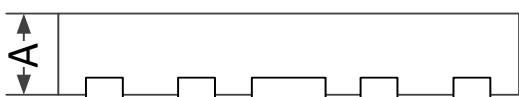
DFN2510-10L Outline Drawing



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Common Dimension (mm)			
PKG	DFN2510-10L		
REF.	MIN.	NOM.	MAX.
A	0.450	0.500	0.600
b	0.150	0.200	0.250
D	2.450	2.500	2.550
E	0.950	1.000	1.050
e	0.500BSC		
L	0.350	0.400	0.450