DWSUC0324PG-Q ESD Protection Diode

Feature

- Uni-directional configurations
- 75Watts peak pulse power (tp = 8/20μs)
- Working voltage: 3.3V
- Junction Capacitance: 0.3pF(Typ I/O to I/O)
- Low leakage current
- Low clamping voltage
- AEC-Q101 qualified
- IEC 61000-4-2 ±20kV contact ±22kV air
- IEC 61000-4-5 (Lightning) 7A (8/20μs)
- IEC61000-4-4(EFT) 40A (5/50ns)

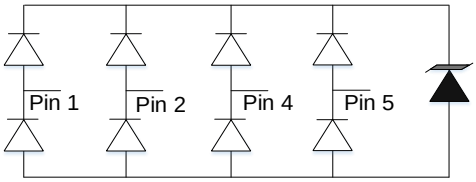
Application

- 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-Q	DFN2510-10L	324G	3000 pcs	7 inches

Absolute Maximum Rating (T_A = 25°C unless otherwise noted)

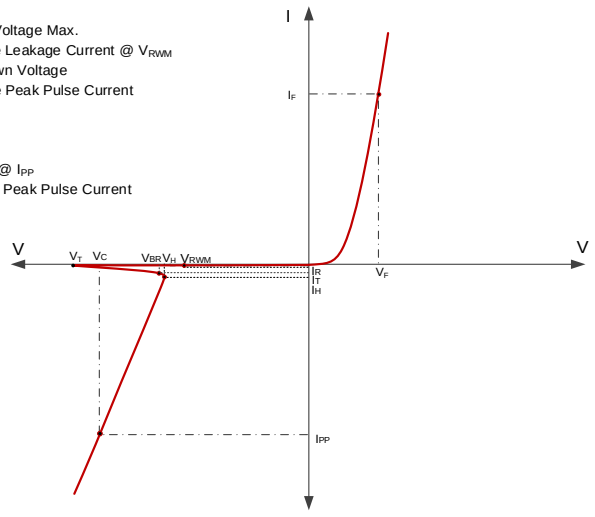
Parameter	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	75	Watts
Peak Pulse Current (t_p =8/20μs) (note1)	I_{pp}	7	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±22 ±20	kV
Lead Soldering Temperature	T_L	260 (10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage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

Electrical Characteristics (T_A = 25°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=1mA, T=25℃ I/O Pin to GND	4.0			V
Reverse Leakage Current	I_R	V_{RWM}=3.3V,T=25℃			0.5	μA
Holding Voltage	V_H	I_H=10mA	4.0			V
Forward Voltage	V_F	I_F=10mA GND to I/O Pin	0.6		1.2	V
Clamping Voltage	V_C	I_{PP}=7A,t_p=8/20μs I/O Pin to GND		8.5	11	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz I/O to I/O		0.3	0.4	pF
		V_R = 0V, f = 1MHz I/O to GND		0.6	0.8	pF

Electrical Parameters (T_A = 25°C unless otherwise noted)

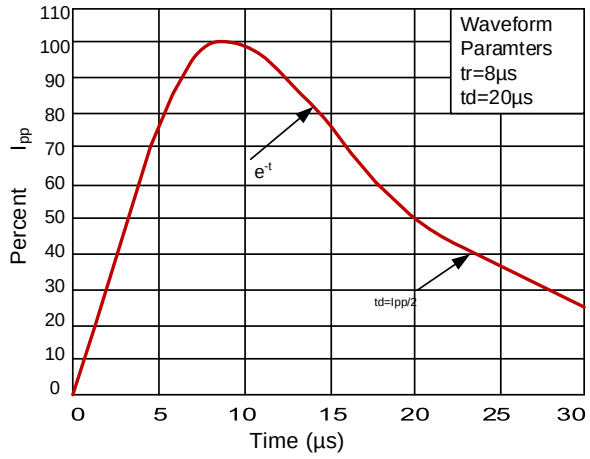
V_{RWM} ·····Reverse Working Voltage Max.
I_R ····· Maximum Reverse Leakage Current @ V_{RWM}
V_{BR} ····· Reverse Breakdown Voltage
I_{PP} ····· Maximum Reverse Peak Pulse Current
V_T ····· Trigger Voltage
V_H ····· Holding Voltage
I_H ····· Holding Voltage
V_C ····· Clamping Voltage @ I_{PP}
I_{PP} ····· Maximum Reverse Peak Pulse Current



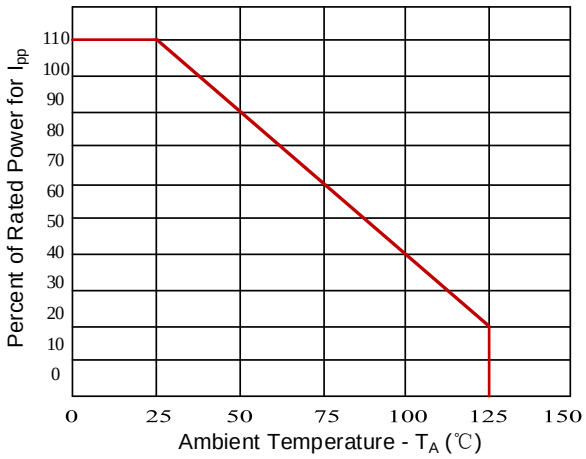
Note1：8/20μs pulse waveform.

Typical Characteristic (T_A = 25°C unless otherwise noted)

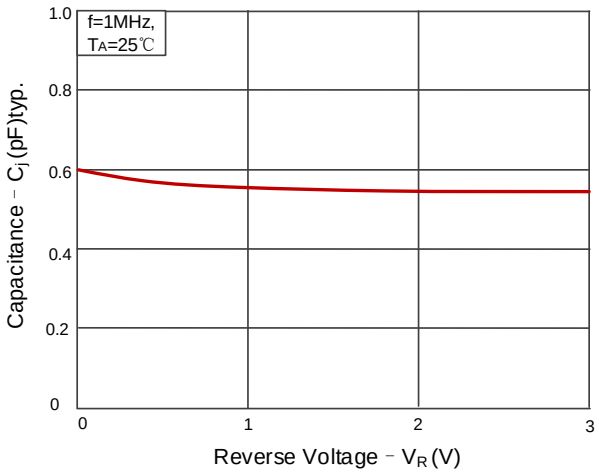
8/20μs Pulse Waveform



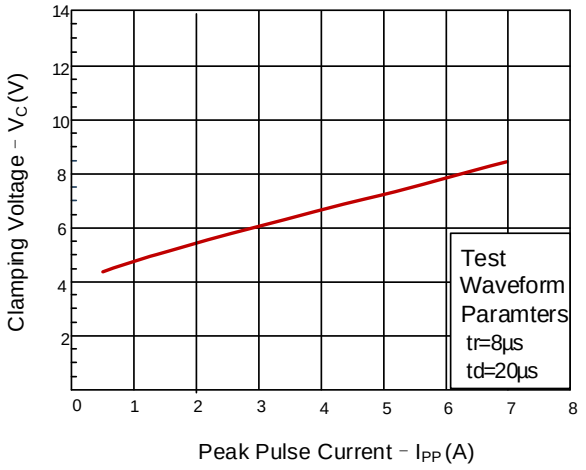
Power Derating Curve



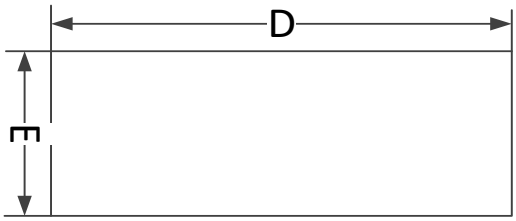
Capacitance vs. Reverse Voltage



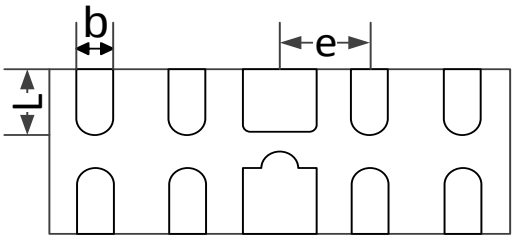
Clamping Voltage vs.Ipp



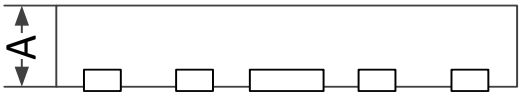
DFN2510-10L Outline Drawing



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