



DWSLC3304N ESD Protection Diode

Feature

- Uni-directional ESD protection of four lines
- 400Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 3.3V
- Junction Capacitance: 2.8pF(Typ I/O to I/O)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 25kV$ contact $\pm 25kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 26A (8/20 μs)

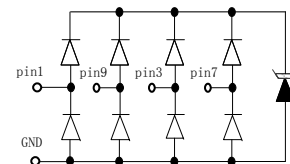
Application

- USB 2.0
- 10/100/1000 Ethernet
- DVI
- T1/E1 Secondary Protection
- T3/E3 Secondary Protection
- Analog Video

Mechanical Data

- Package: DFN2626-10L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWSLC3304N	DFN2626-10L	M34 •	3000 pcs	7 inches



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

Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu\text{s}$)	P_{PP}	400	Watts
Peak Pulse Current ($t_p=8/20\mu\text{s}$) (note1)	I_{PP}	26	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 25 ± 25	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	$^{\circ}\text{C}$

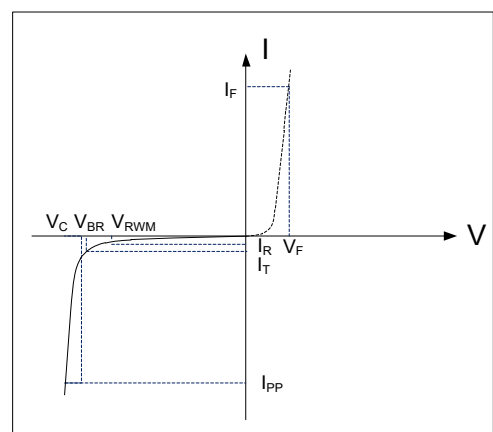
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	4			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}, T=25^{\circ}\text{C}$		0.2	0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$		26		A
Clamping Voltage	V_C	$I_{PP}=26\text{A}, t_p=8/20\mu\text{s}$		17		V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$ I/O to I/O		2.8		pF
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$ I/O to GND		5.5		pF

Electrical Parameters

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Note.: 8/20 μs pulse waveform.





Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

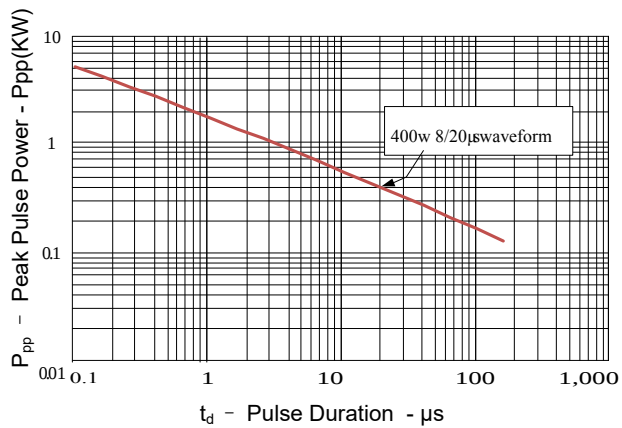


Figure 2: Power Derating Curve

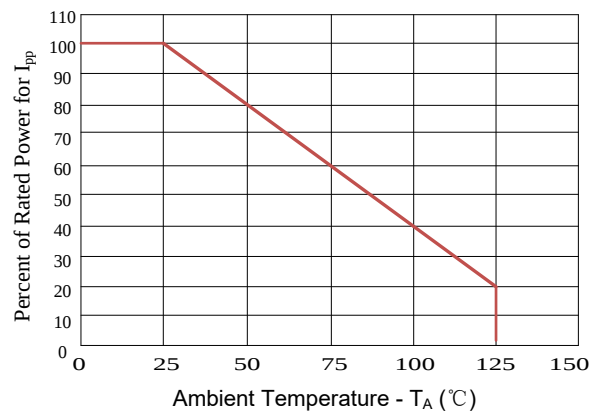


Figure3: Pulse Waveform

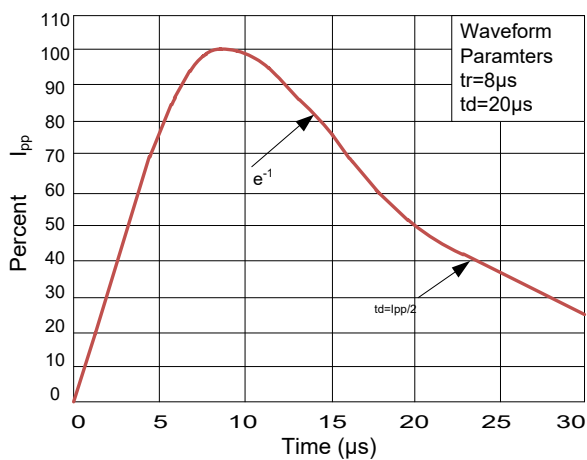
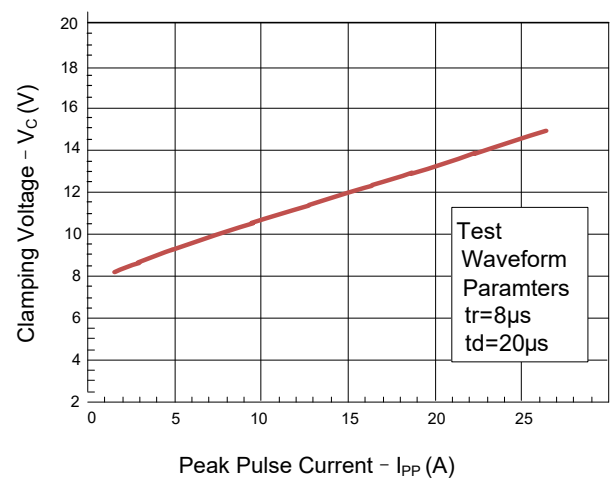
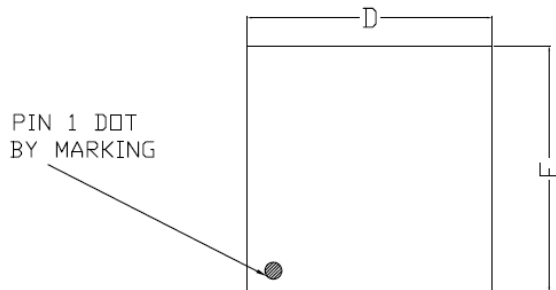


Figure 4: Clamping Voltage vs. I_pp

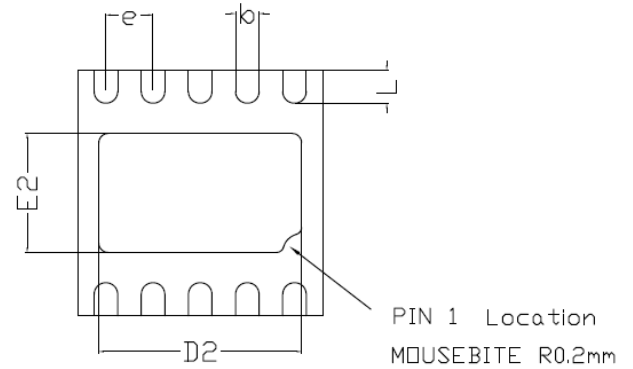




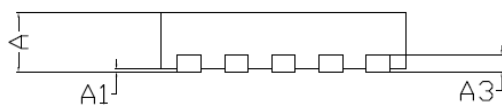
DFN2626-10L Outline Drawing



TOP VIEW



BOTTOM VIEW



SIDE VIEW

COMMON DIMENSIONS(MM)			
PKG.			
UT: ULTRA THIN			
REF.	MIN.	NOM.	MAX.
A	0.50	0.55	0.60
A1	0.00	-	0.05
A3	0.15 REF.		
D	2.55	2.60	2.65
E	2.55	2.60	2.65
D2	2.00	2.15	2.25
E2	1.11	1.26	1.36
b	0.20	0.25	0.30
L	0.25	0.35	0.45
e	0.5 BSC		