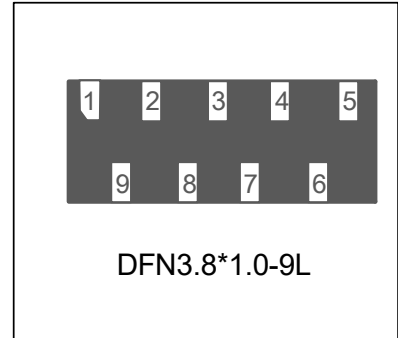




Features

- 100 Watts peak pulse power ($t_p=8/20\mu s$)
- Protects 8 high-speed IO channels
- Low capacitance: 0.3pF typical
- Low leakage current
- Low operating and clamping voltage
- Solid-state silicon-avalanche TVS process technology



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 μs)

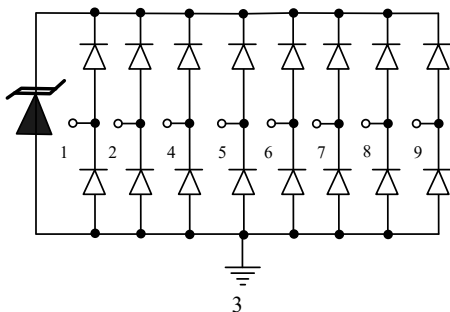
Mechanical Characteristics

- JEDEC DFN3.8*1.0-9L package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS Compliant

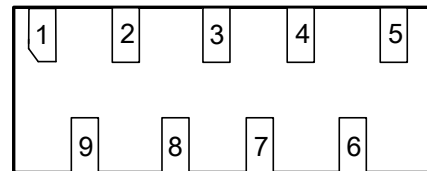
Applications

- High Definition Multi-Media Interface(HDMI)
- DisplayPort interface
- SATA and eSATA interface
- 10/100,1000M Ethernet
- V-By-One
- LVDS interfaces

Circuit Diagram



Schematic & PIN Configuration

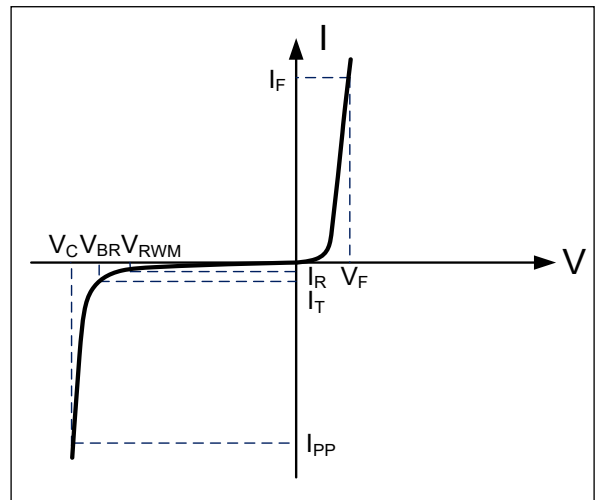


Pin	Identificaion
1,2,4,5,6,7,8,9	I/O
3	Ground

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$) see Figure1 & Figure2	P_{PP}	100	Watts
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	6	A
Lead Soldering Temperature	T_L	260(10sec)	°C
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

DW3.3-8R2P-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T=1mA$	3.7			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25°C$			500	nA
Clamping Voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$		10		V
Clamping Voltage	V_C	$I_{PP}=6A, t_p=8/20\mu s$		15	18	V
Junction Capacitance	C_j	Between I/O pins and Ground $V_R=0V, f=1MHz$			0.8	pF
		Between I/O pins $V_R=0V, f=1MHz$		0.3	0.4	pF

Notes: These specifications are guaranteed by design and characterization.

Ver.: A1 2019-02-22 WA



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

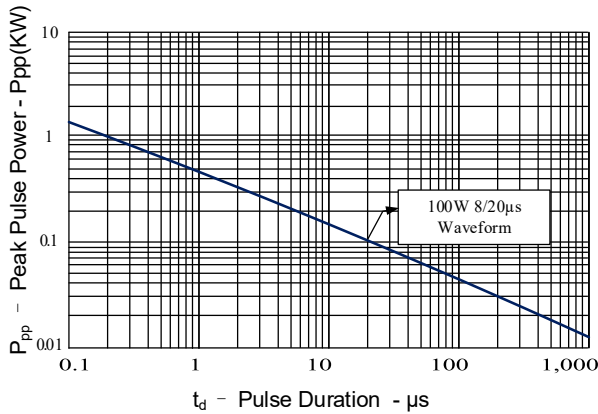


Figure 2: Power Derating Curve

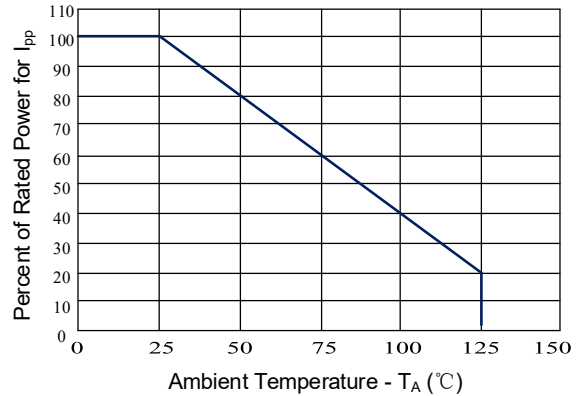


Figure3: Pulse Waveform

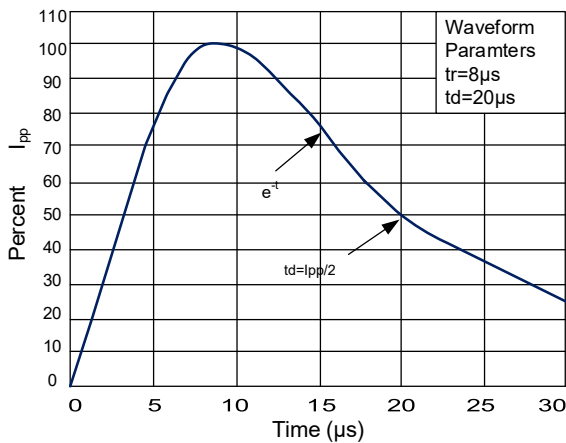


Figure 4: Clamping Voltage vs. Peak Pulse Current

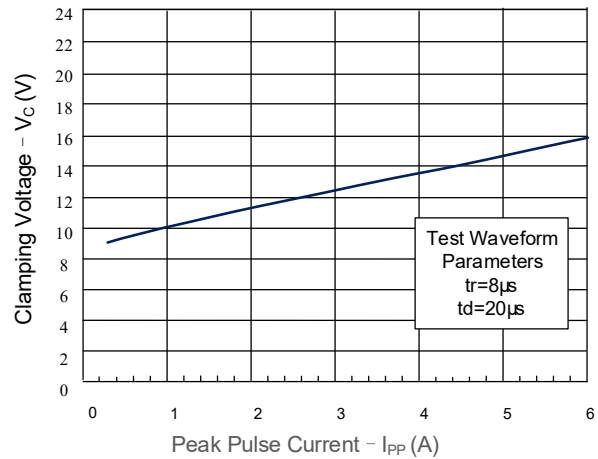


Figure 5: Normalized Junction Capacitance vs. Reverse Voltage

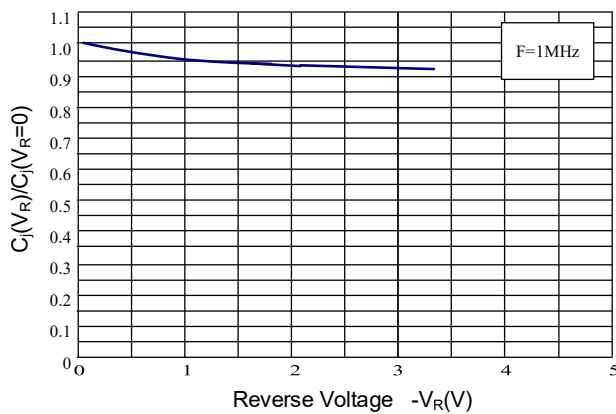
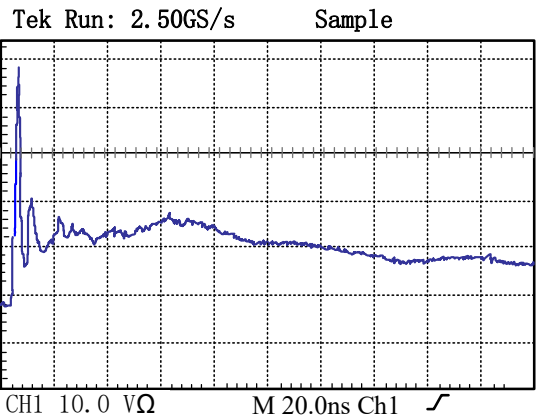


Figure 6: ESD Clamping(8kV Contact per IEC 61000-4-2)





Outline Drawing – DFN3.8*1.0-9L

PIN1 INDICATOR (LASER MARK)

SEATING PLANE

NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).

DFN3.8*1.0-9L

DIMENSIONS			
DIM	MILLIMETERS		
	MIN	NOM	MAX
D	3.75	3.80	3.85
E	0.95	1.00	1.05
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
A2	0.15REF		
b	0.15	0.20	0.25
e	0.80BSC		
e1	0.90BSC		
L	0.20	0.25	0.30
K	0.45	0.50	0.55

NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY.
CONSULT YOUR MANUFACTURING TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

DIMENSIONS		
DIM	INCHES	MILLIMETERS
P	0.031	0.80
P1	0.035	0.90
d	0.012	0.30
Y	0.024	0.60
Y1	0.061	1.55

Marking Codes

Part Number	DW3.3-8R2P-E
Marking Code	.8R2P

Package Information

Qty: 3k/Reel