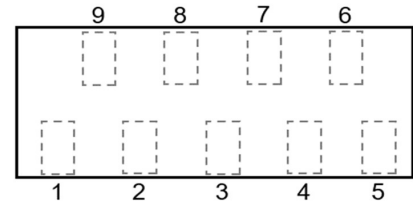
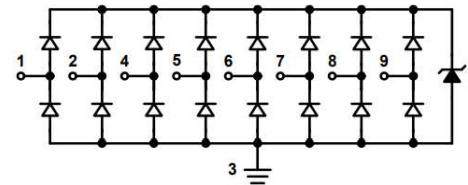


### Features

- Low capacitance: 0.2pF TYP (Between I/O and I/O)
- Package optimized for high-speed lines
- Protects eight data lines
- Low leakage current
- Transient protection for high-speed data lines
  - IEC 61000-4-2 (ESD)  $\pm 25\text{kV}(\text{air}), \pm 20\text{kV}(\text{contact})$
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
- Compliant to Halogen-free



Pin Configuration



Circuit Diagram

### Mechanical Characteristics

- Package: DFN3810-9
- Terminal Connections: See Diagram
- Marking: 3308P

### Absolute Maximum Ratings

Symbol	Parameter	Value	Units
$P_{PP}$	Peak Pulse Power (8/20 $\mu$ s)	56	W
$V_{ESD}$	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$\pm 25$ $\pm 20$	kV
$T_{OPT}$	Operating Temperature	-55/+125	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature	-55/+150	$^{\circ}\text{C}$

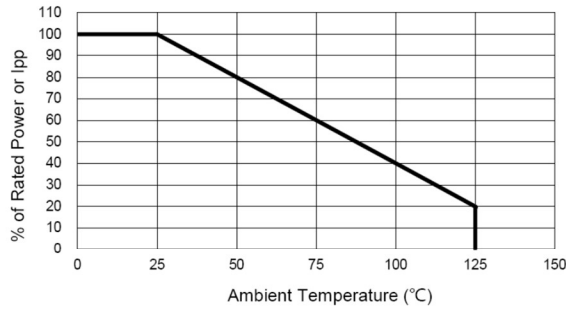
### Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage	Any I/O pin to GND			3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$ Any I/O pin to GND	4.2			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$ Any I/O pin to GND			1.0	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ Any I/O pin to GND			10	V
$V_C$	Clamping Voltage	$I_{PP} = 4\text{A}, t_p = 8/20\mu\text{s}$ Any I/O pin to GND			14	V
$C_{ESD}$	Parasitic Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ Between I/O and GND		0.4	0.5	pF
$C_{ESD}$	Parasitic Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ Between I/O and I/O		0.2	0.3	pF

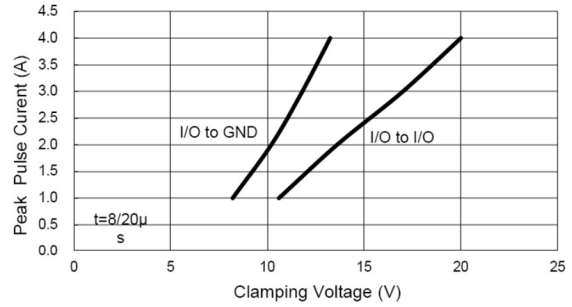
Note: I/O pins are pin 1,2,4,5, 6,7,8,9; GND pins are pin 3.

### Electrical Characteristics

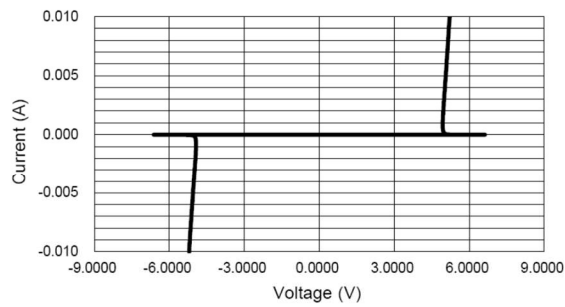
**Fig 1 Power Derating Curve**



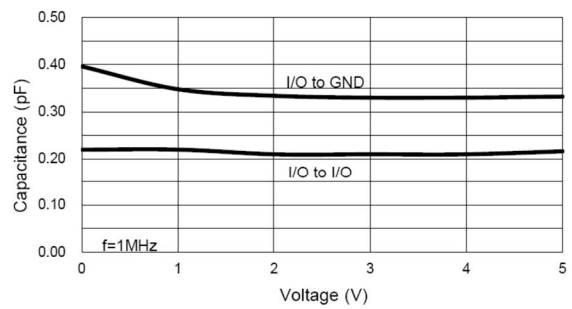
**Fig 2 Clamping Voltage vs Peak Pulse Current**



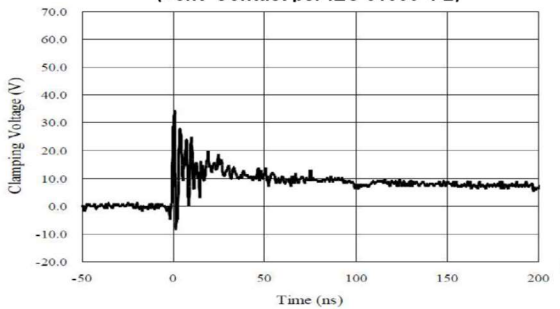
**Fig 3 Voltage Sweeping of I/O to I/O**



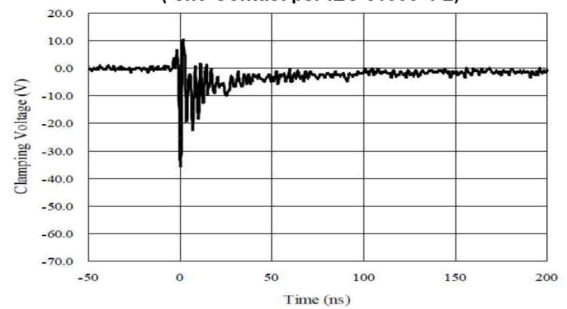
**Fig 4 Voltage vs Capacitance**



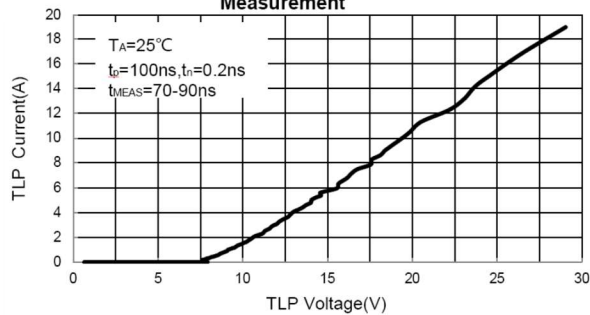
**Fig 5 ESD Clamping of I/O to GND (+8kV Contact per IEC 61000-4-2)**



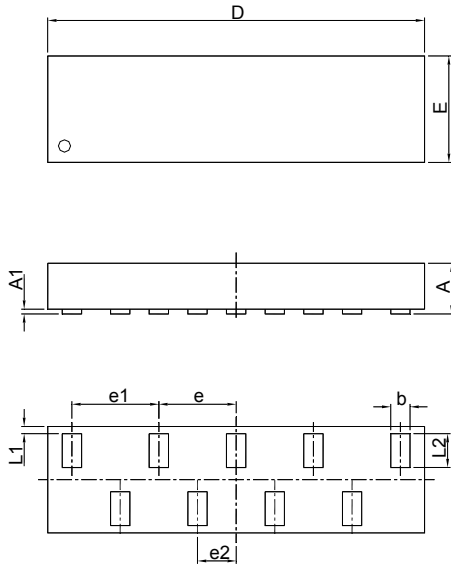
**Fig 6 ESD Clamping of I/O to GND (-8kV Contact per IEC 61000-4-2)**



**Fig7 Transmission Line Pulsing (TLP) Measurement**

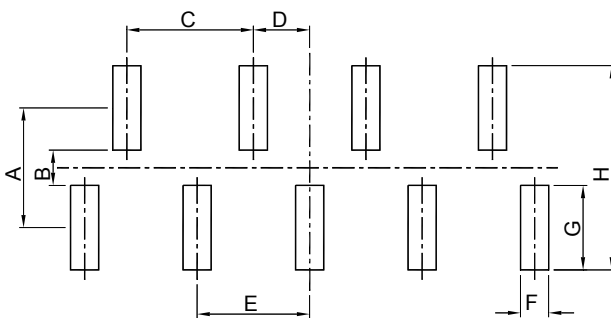


### DFN3810-9 Package Outline Drawing



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.475	0.525	0.019	0.021
A1	0.000	0.050	0.000	0.002
b	0.150	0.250	0.006	0.010
D	3.700	3.900	0.146	0.154
E	0.900	1.100	0.035	0.043
e	0.800		0.032	
e1	0.900		0.035	
e2	0.400		0.016	
L1	0.025	0.075	0.001	0.003
L2	0.250	0.350	0.010	0.014

### Suggested Land Pattern



SYMBOL	DIMENSIONS	
	MILLIMETERS	INCHES
A	0.850	0.033
B	0.250	0.010
C	0.900	0.035
D	0.400	0.016
E	0.800	0.031
F	0.200	0.008
G	0.600	0.024
H	1.450	0.057