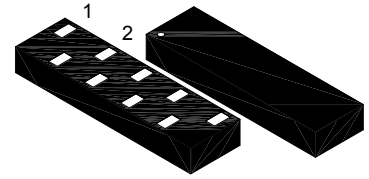
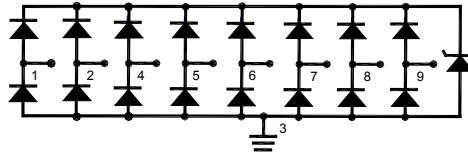


ESDLC3328MP

ESD Protection Diode

Features

- Protects eight high-speed lines
- Low ESD clamping voltage



DFN3810-9 Plastic Package

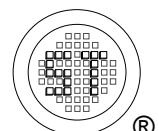
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	75	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	5	A
ESD (IEC61000-4-2) Air Contact	V_{ESD}	± 30 ± 25	KV
Operation Junction Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage, Any I/O to Gnd	V_{RWM}	-	-	3.3	V
Punch-Through Voltage at $I_{PT} = 2 \mu\text{A}$, Any I/O to Gnd	V_{PT}	3.8	-	5.5	V
Reverse Current at $V_{RWM} = 3.3 \text{ V}$, Any I/O to Gnd	I_R	-	-	100	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Any I/O to Gnd at $I_{PP} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Any I/O to Gnd	V_C	-	-	9 12	V
ESD Clamping Voltage at $I_{TLP} = 16 \text{ A}$, $t_{lp} = 0.2/100 \text{ ns}$ at $I_{TLP} = -16 \text{ A}$, $t_{lp} = 0.2/100 \text{ ns}$	V_{CL}	-	13.5 -6.4	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Any I/O to Gnd at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Between I/O pins	C_j	-	-	0.65 0.4	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.4	-	Ω

¹⁾ Dynamic Resistance calculated from $I_{TLP} = 4 \text{ A}$ to $I_{TLP} = 16 \text{ A}$.



ESDLC3328MP

Electrical Characteristic Curves

Fig 1. Pulse Waveform

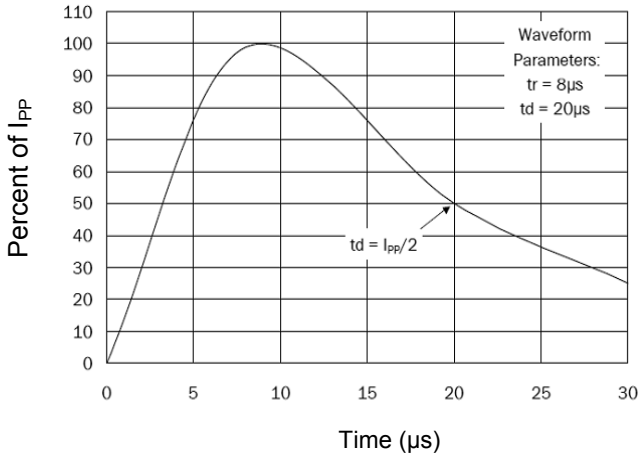


Fig 2. Power Derating Curve

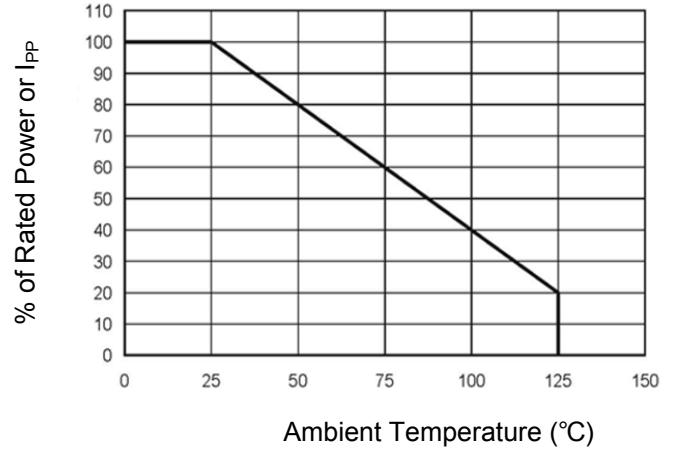


Fig 3. Clamping Voltage Curve

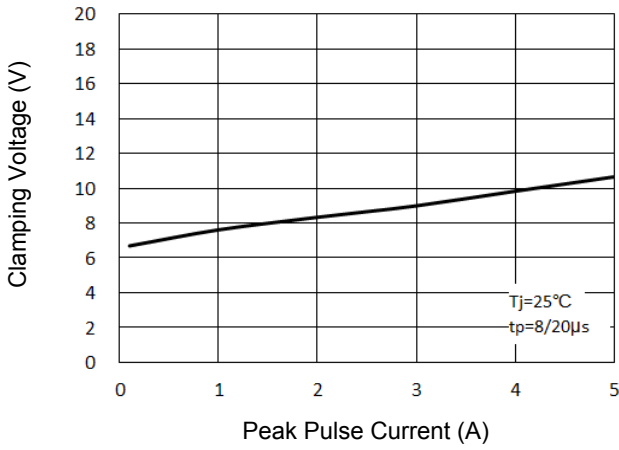


Fig 4. Junction Capacitance

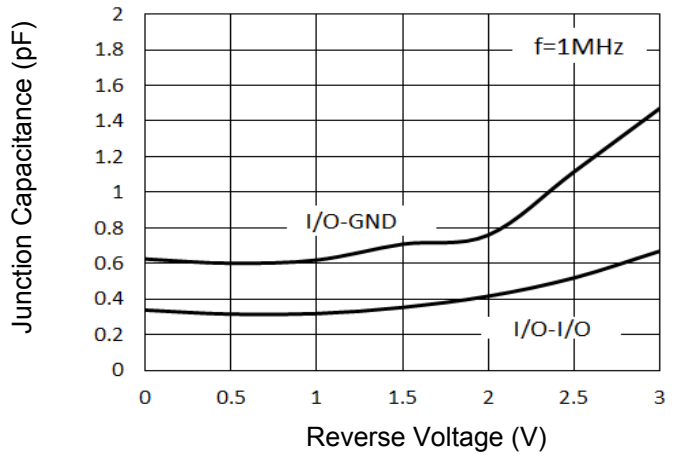


Fig 5. TLP Curve (Positive)

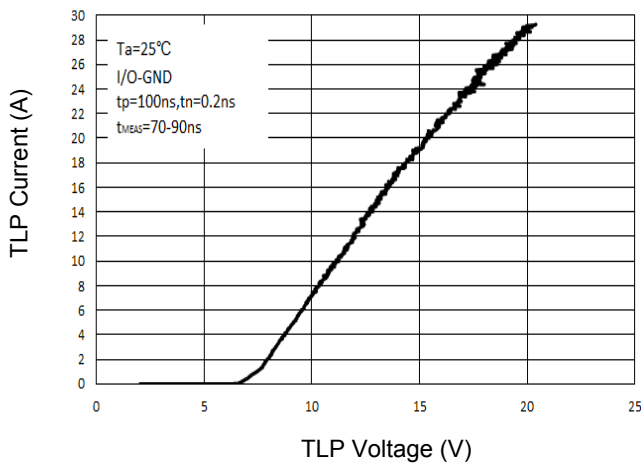
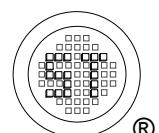
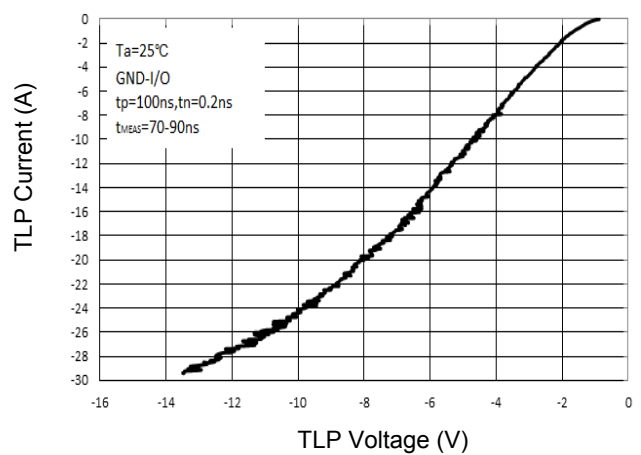


Fig 6. TLP Curve (Negative)

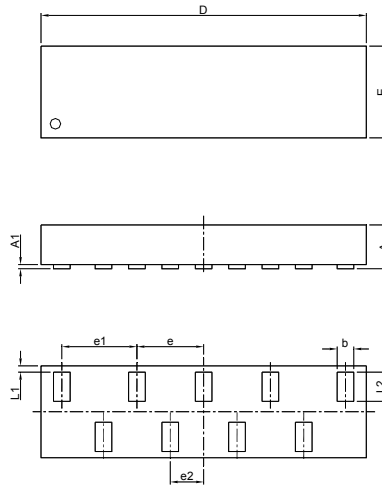


ESDLC3328MP

PACKAGE OUTLINE

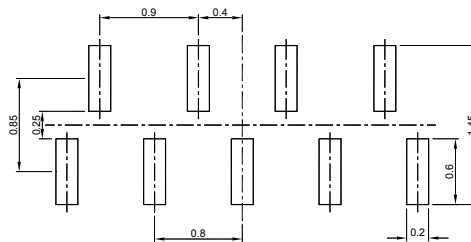
Plastic surface mounted package; 2 leads

DFN3810-9



UNIT	A	A1	b	D	E	e	e1	e2	L1	L2
mm	0.475	0	0.15	3.70	0.90	0.80	0.90	0.40	0.025	0.25
	0.525	0.05	0.25	3.90	1.10				0.075	0.35

Recommended Soldering Footprint

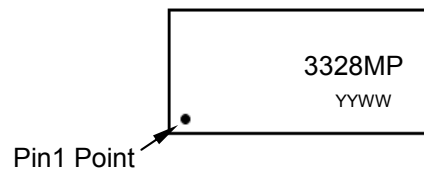


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN3810-9	12	4 ± 0.1	0.157 ± 0.004	178	7	5,000

Marking information

- " 3328MP " = Part No.
- " YYWW " = Date Code Marking
- " YY " = Year
- " WW " = Week
- Font type: Arial



Disclaimer: Our company reserve the right to make modifications, enhancements, improvements, corrections or other changes to improve product design, functions and reliability, anytime without notice. Semtech Electronics Limited makes no warranties, representations or warranties regarding the suitability of its products for any particular purpose, and does not accept any liability arising from the application or use of any product or circuit such as: Apply to medical, military, aircraft, space or life support equipment and expressly waive any and all liability, including but not limited to special, consequential or collateral damage.

