

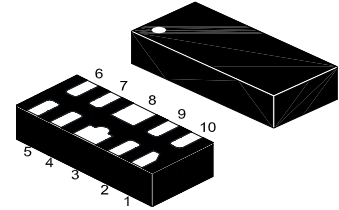
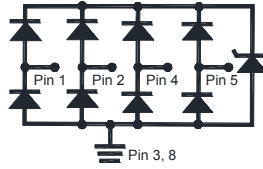
ESDLC3325MP

ESD Protection Diode

Low Capacitance Array for High Speed Data Lines

Features

- Low ESD clamping voltage
- Low capacitance



1. I/O 2. I/O 3. GND 4. I/O 5. I/O
6. NC 7. NC 8. GND 9. NC 10. NC
Marking Code: "F5"
DFN2510-10 Plastic package

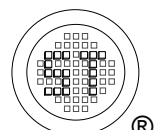
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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 per IEC 61000-4-2	Air Contact V_{ESD}	± 30 ± 25	KV
Operation Junction Temperature Range	T_J	- 40 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	-	-	0.1	μA
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 $I_{TLP} = 4 \text{ A}$, $t_p = 0.2/100 \text{ ns}$, Any I/O to Gnd at $I_{TLP} = 16 \text{ A}$, $t_p = 0.2/100 \text{ ns}$, Any I/O to Gnd	V_{CL}	-	9.5 16.8	-	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}	-	0.61	-	Ω

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



Electrical Characteristics Curves

Fig 1. Pulse Waveform

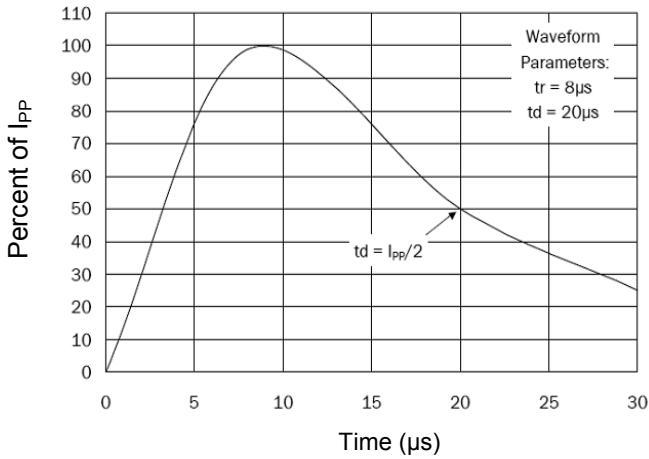


Fig 2. Power Derating Curve

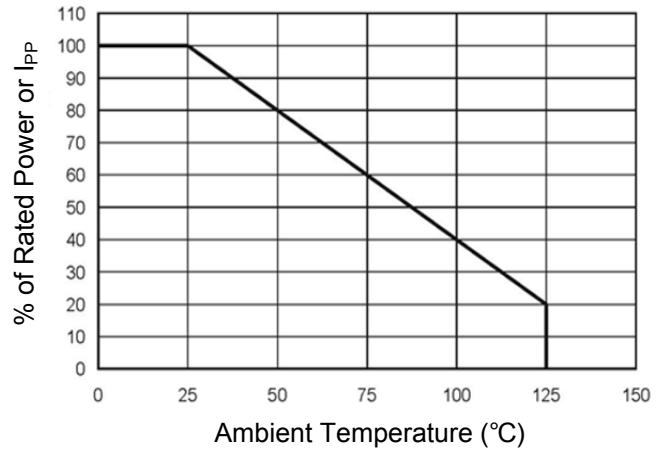


Fig 3. Clamping Voltage Curve

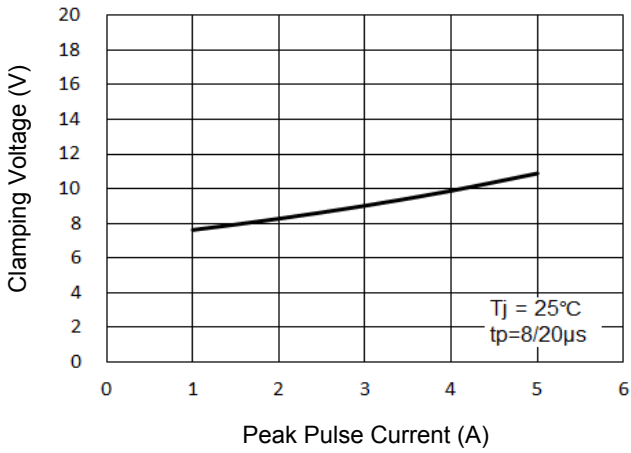


Fig 4. Junction Capacitance

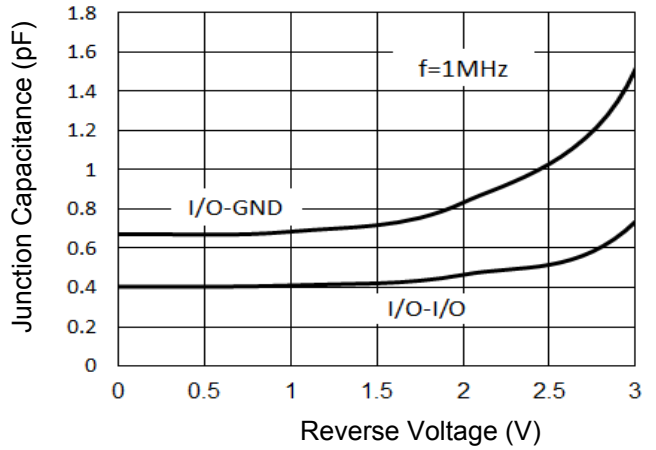
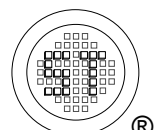
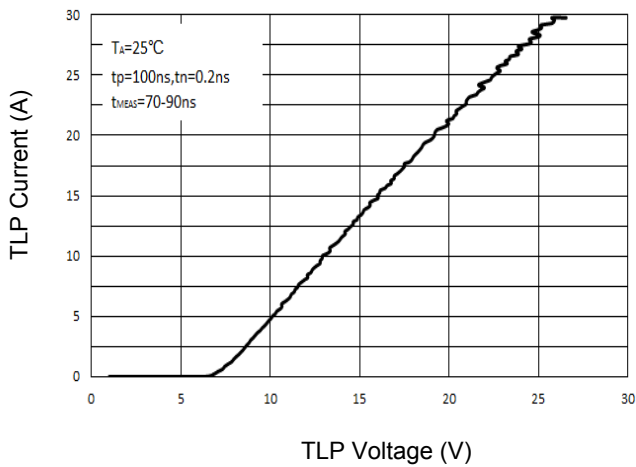


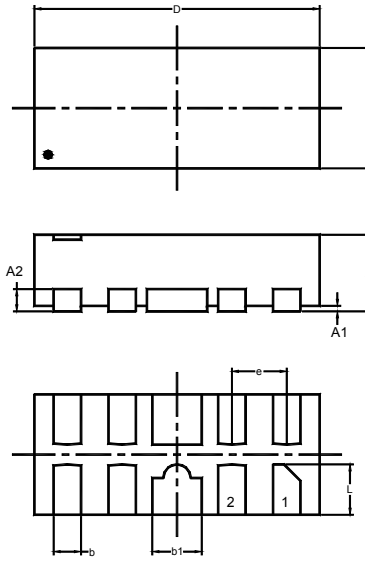
Fig 5. TLP Curve



ESDLC3325MP

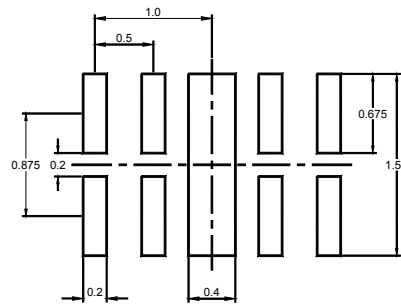
Package Outline Dimensions (Units: mm)

DFN2510-10



UNIT	A	A1	A2	b	b1	D	E	e	L
mm	0.46 0.51	0 0.05	0.13	0.15 0.25	0.35 0.45	2.40 2.60	0.90 1.10	0.50	0.30 0.425

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN2510-10	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

- " F5 " = Part No.
- " YYWW " = Date Code Marking
- " YY " = Year
- " WW " = Week
- Font type: Arial

