

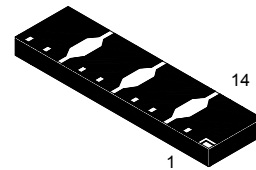
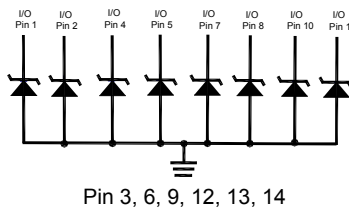
ESDLC8008MP

ESD Protection Diode

Low Capacitance Array for High Speed Data Lines

Features

- Low capacitance
- Integrated 4 Pairs (8 Lines) high speed data
- Single connect , flow through routing



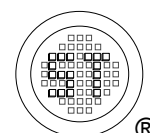
DFN5515-14 Plastic Package

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	80	W
ESD (IEC 61000-4-2) Air Contact	V_{ESD}	± 20	KV
Operation Temperature Range	T_{opr}	- 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 at I/O Pin to GND	V_{RWM}	-	-	3.3	V
Reverse Breakdown Voltage at $I_t = 1 \text{ mA}$, I/O Pin to GND	$V_{(BR)R}$	5.5	-	8.5	V
Reverse Current at $V_{RWM} = 3.3 \text{ V}$, I/O Pin to GND	I_R	-	-	0.5	μA
Clamping Voltage at $I_{TLP} = 8 \text{ A}$, I/O to GND $t_p = 100 \text{ ns}$, $t_r = 0.2 \text{ ns}$, $t_{MEAS} = 70-90 \text{ ns}$	V_{CL}	-	6	-	V
Clamping Voltage at $I_{TLP} = 16 \text{ A}$, I/O to GND $t_p = 100 \text{ ns}$, $t_r = 0.2 \text{ ns}$, $t_{MEAS} = 70-90 \text{ ns}$	V_{CL}	-	7.3	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$ between I/O Pins and GND	C_j	-	0.5	0.6	pF
Dynamic Resistance I/O to GND	R_{dyn}	-	0.16	-	Ω



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Electrical Characteristic Curves

Fig 1. Pulse Waveform

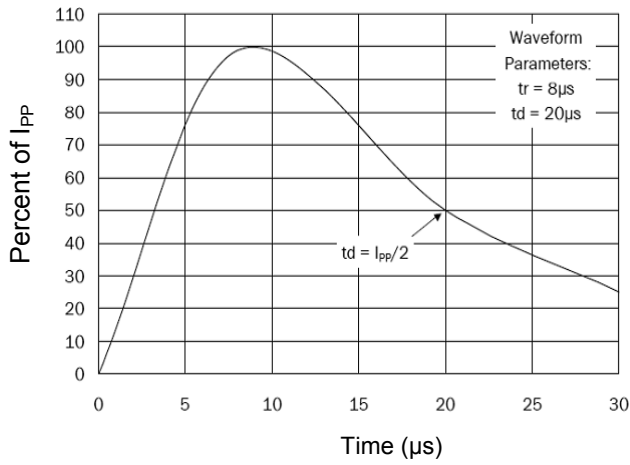


Fig 2. Power Derating Curve

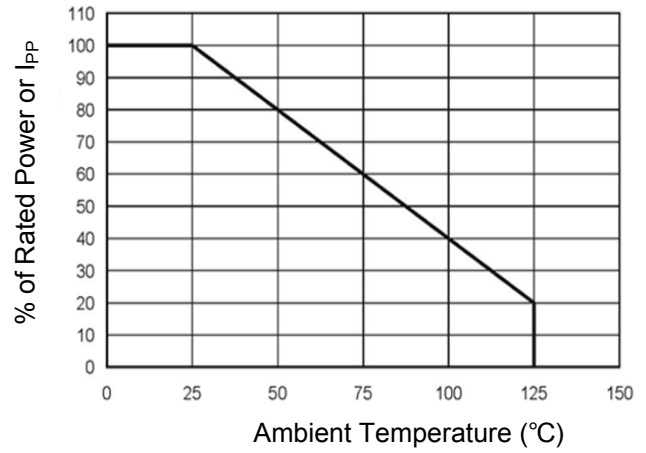


Fig 3. Clamping Voltage Curve

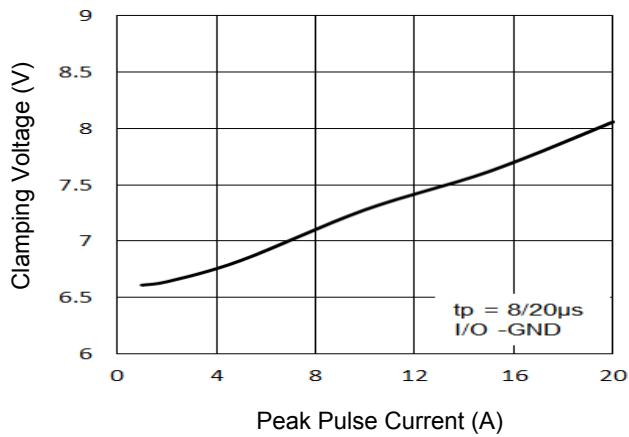


Fig 4. Junction Capacitance

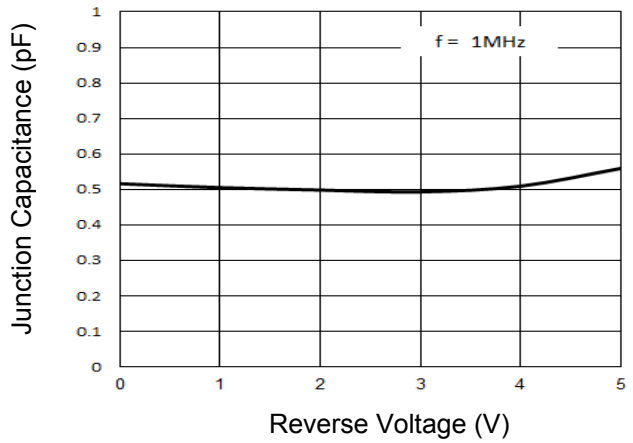


Fig 5. Peak Pulse Power vs Time

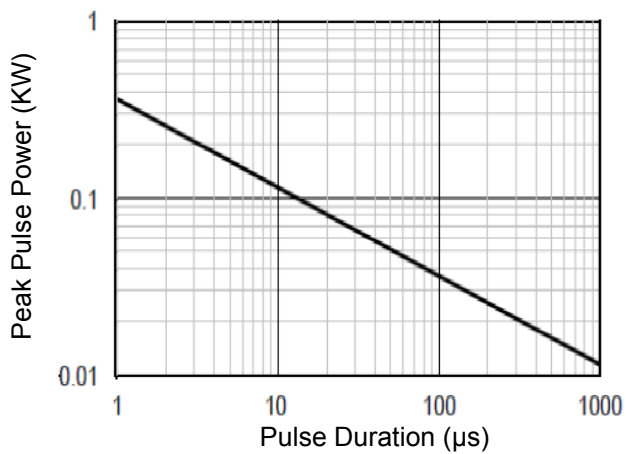
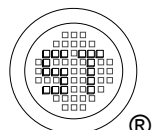
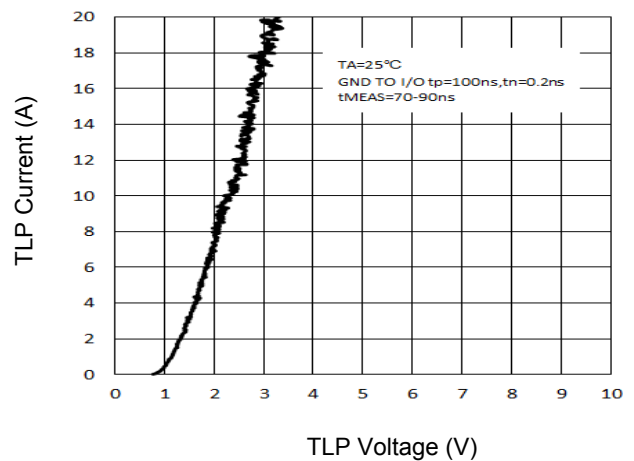


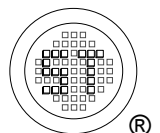
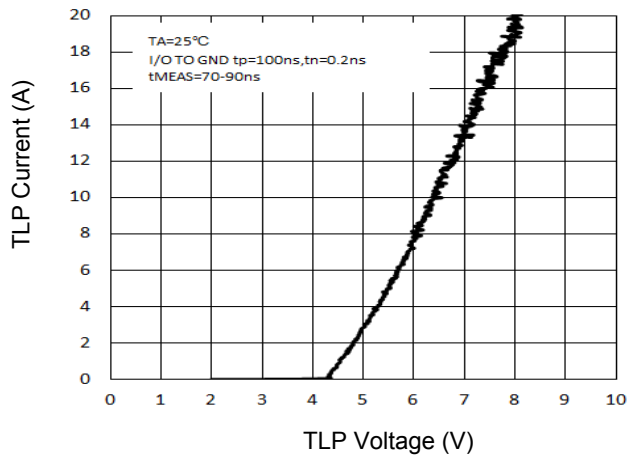
Fig 6. TLP Curve



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Electrical Characteristics Curves

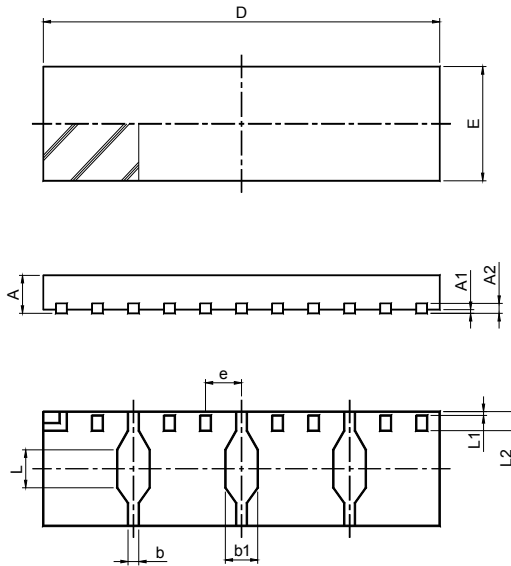
Fig. 7 TLP Curve



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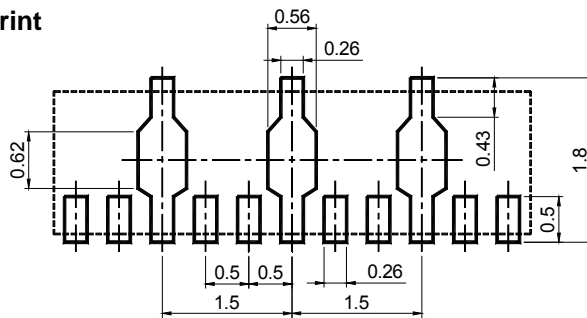
Package Outline Dimensions (Units: mm)

DFN5515-14



UNIT	A	A1	A2	b	b1	D	E	e	L	L1	L2
mm	0.45 0.55	0 0.05	0.13 Typ.	0.15 0.25	0.45 0.55	5.4 5.6	1.4 1.6	0.50 Typ.	0.50 0.70	0 0.05	0.20 0.40

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN5515-14	12	4 ± 0.1	0.157 ± 0.004	178	7	5,000

Marking information

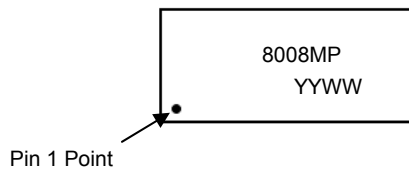
" 8008MP " = Part No.

" YYWW " = Date Code Marking

" YY " = Year

" WW " = Week

Font type: Arial



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