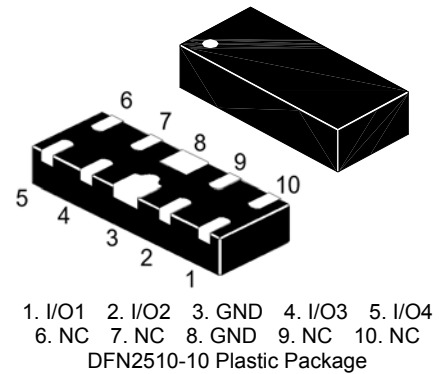
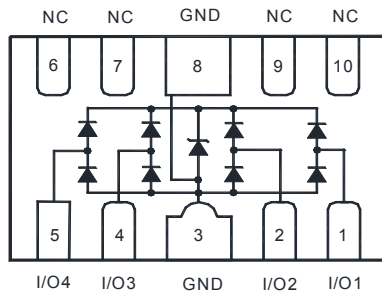


ESDLC8859MP

ESD Protection Diode

Features

- Low clamping voltage
- Low operating voltage
- Protects 4 Lines
- Low capacitance



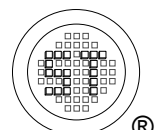
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	12	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 15 ± 15	KV
Junction Temperature Range	T_J	- 40 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	6	-	-	V
Reverse Current at $V_{RWM} = 5 \text{ V}$	I_R	-	-	1	μA
Forward Voltage at $I_F = 15 \text{ mA}$	V_F	-	0.85	-	V
Clamping Voltage at $I_{PP} = 2 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 12 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	-	10 20	V
ESD Clamping Voltage at $I_{TLP} = 4 \text{ A}$, $t_p = 0.2/100 \text{ ns}$ at $I_{TLP} = 16 \text{ A}$, $t_p = 0.2/100 \text{ ns}$	V_{CL}	-	9.6 14.5	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Between I/O Pins to GND at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$, Between I/O Pins	C_J	-	1.5 0.8	2 1	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.41	-	Ω

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



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Electrical Characteristic Curves

Fig 1. Pulse Waveform

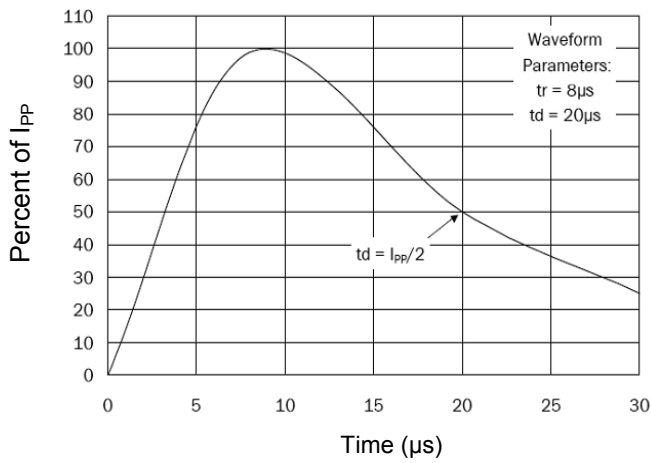


Fig 2. Power Derating Curve

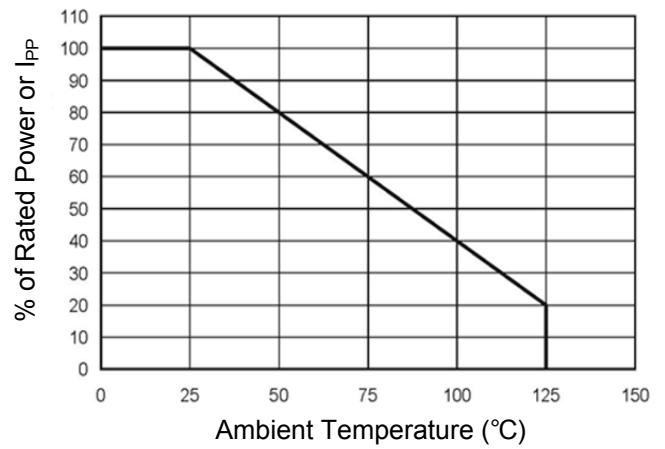


Fig 3. Clamping Voltage Curve

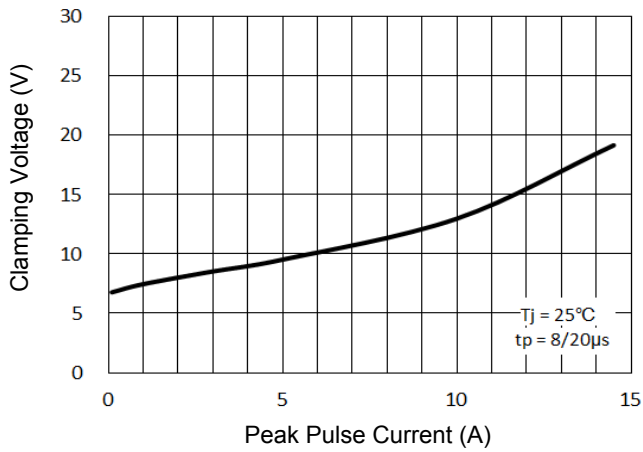


Fig 4. Junction Capacitance

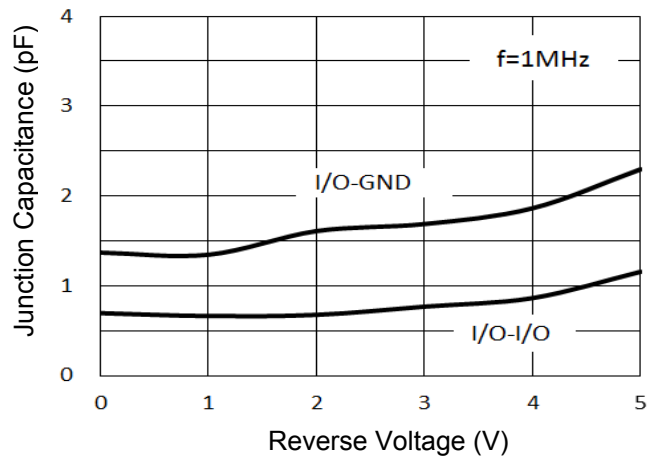
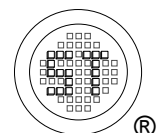
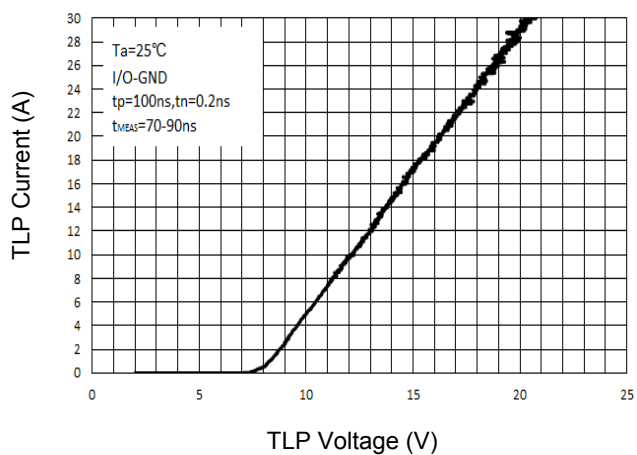


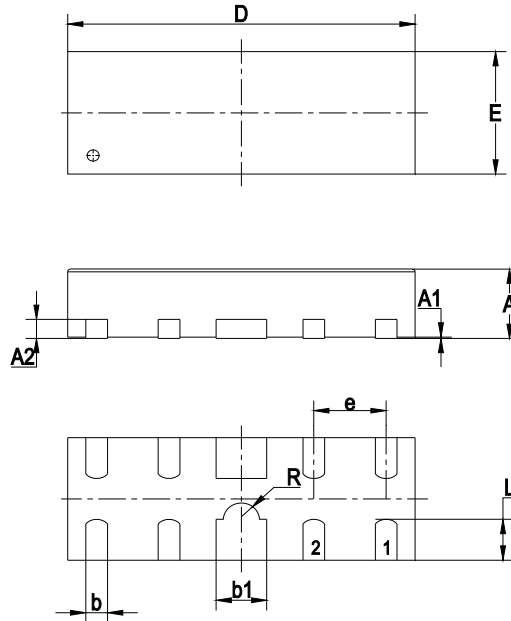
Fig 5 TLP Curve



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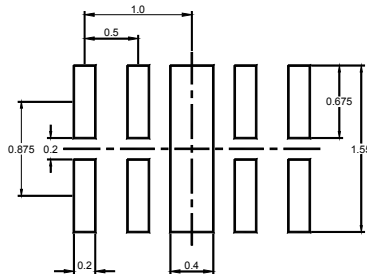
Package Outline Dimensions (Units: mm)

DFN2510-10



UNIT	A	A1	A2	b	b1	D	E	e	L	R
mm	0.46 0.51	0 0.05	0.13 Typ.	0.15 0.25	0.35 0.45	2.40 2.60	0.90 1.10	0.50 Typ.	0.30 0.425	0.125 Typ.

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

- " E5 " = Part No.
- " YYWW " = Date Code Marking
- " YY " = Year
- " WW " = Week
- Font type: Arial

