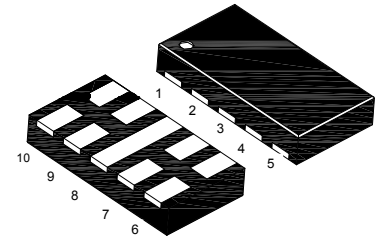
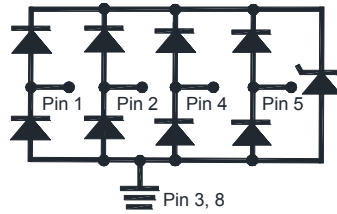


# ESDLC0544MP

## ESD Protection Diode

### Features

- Protects four I/O lines
- Low capacitance
- Low clamping voltage
- Low operating voltage



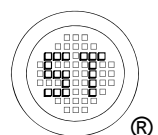
1. I/O 2. I/O 3. GND 4. I/O 5. I/O  
6. NC 7. NC 8. GND 9. NC 10. NC  
DFN2010-10H Plastic package

### 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	$V_{ESD}$	$\pm 18$ $\pm 12$	KV
Operating 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.	Max.	Unit
Reverse Stand-Off Voltage at Pin 1, 2, 4 or 5 to GND	$V_{RWM}$	-	5	V
Reverse Breakdown Voltage at $I_T = 1 \text{ mA}$ , Pin 1, 2, 4 or 5 to GND	$V_{(BR)R}$	6.5	11	V
Reverse Current at $V_{RWM} = 5 \text{ V}$ , Pin 1, 2, 4 or 5 to GND	$I_R$	-	0.1	$\mu\text{A}$
Clamping Voltage at $I_{PP} = 1 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , Pin 1, 2, 4 or 5 to GND	$V_C$	-	12	V
Clamping Voltage at $I_{PP} = 5 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , Pin 1, 2, 4 or 5 to GND	$V_C$	-	15	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$ , Pin 1, 2, 4 or 5 to GND	$C_j$	-	0.6	pF
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$ , Between I/O Pins	$C_j$	-	0.4	pF



# ESDLC0544MP

## Electrical Characteristics Curves

Fig 1. Pulse Waveform

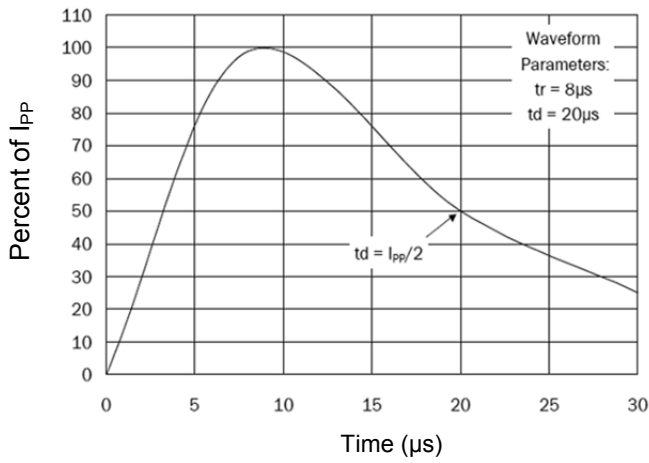


Fig 2. Power Derating Curve

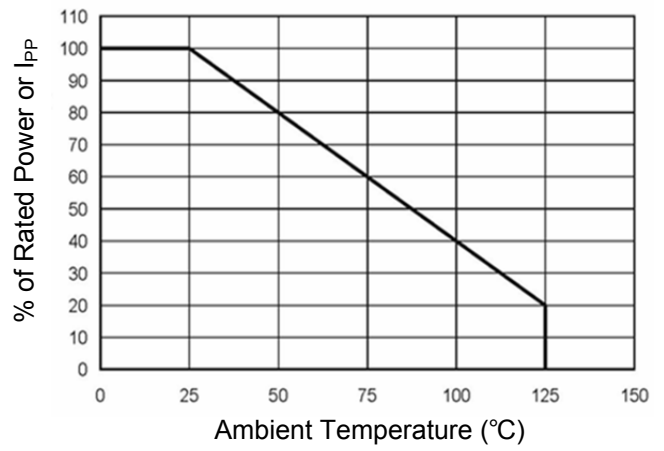


Fig 3. Clamping Voltage Curve

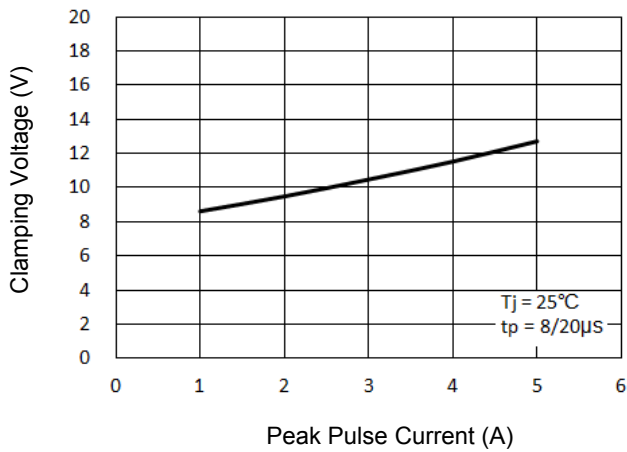


Fig 4. Junction Capacitance

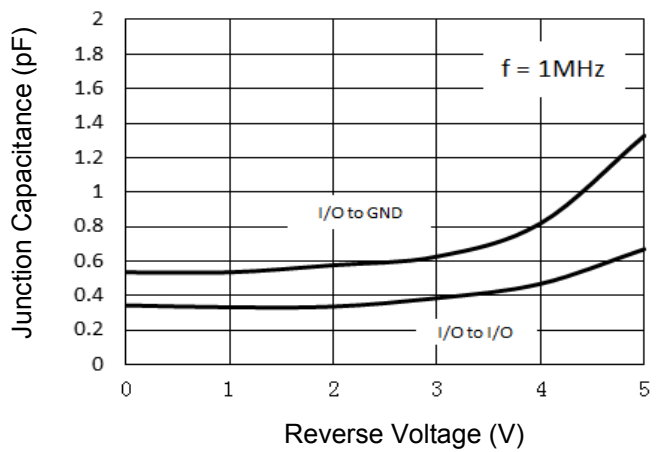
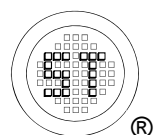
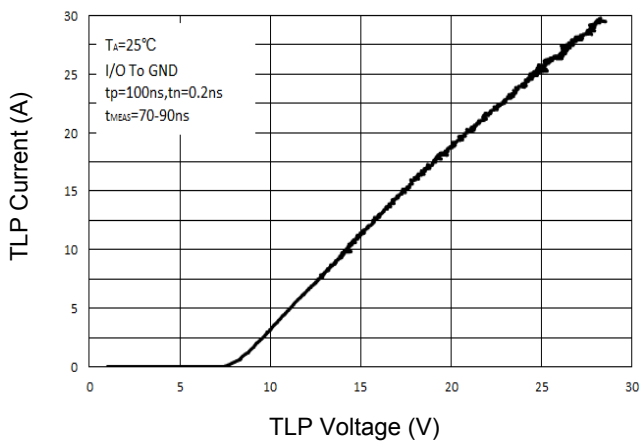


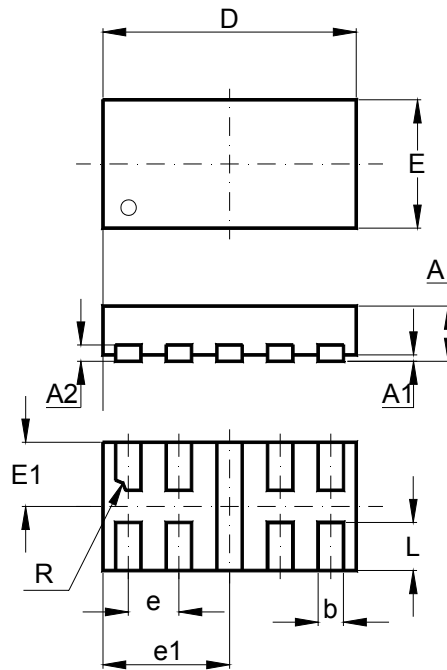
Fig 5 TLP Curve



# ESDLC0544MP

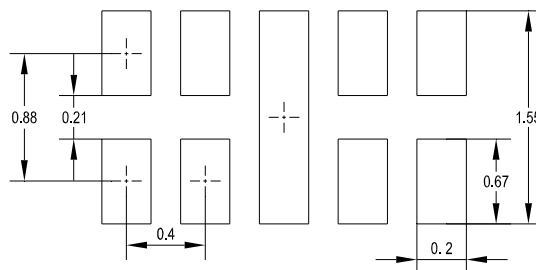
Package Outline Dimensions (Units: mm)

DFN2010-10H



UNIT	A	A1	A2	b	D	E	E1	e	e1	L	R
mm	0.46 0.51	0 0.05	0.13 Typ.	0.15 0.25	1.95 2.08	0.95 1.08	0.54 Typ.	0.4 Typ.	1.04 typ	0.32 0.43.	0.075 Typ.

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN2010-10H	8	4 ± 0.1	0.157 ± 0.004	178	7	5,000

## Marking information

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

