

## Discription

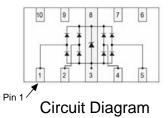
The HPLR0524P-LF-T7 is a 4-channel ultra low capacitance rail clam ESD protection diodes array . Each channel consists of a pair of diodes that steer positive or negative ESD current to either the positive or negative rail . A zener diode is integrated in to the array between the positive and negative supply rails. In the typical applications, the negative rail pin (assigned as GND) is connected with system ground . The Positive ESD current is steered to the ground through an ESD diode and Zener diode and the positive ESD voltage is clamped to the zener voltage.

## Features

- ★ 4 channels of ESD protection;
- ★ Provides ESD protection to IEC61000-4-2 level 4
  - ±17kV air discharge
- ±12kV contact discharge;
- ★ Ultra-low Capacitance:0.6pF(Typical)
- ★ Low clamping voltage;
- ★ Low operating voltage;
- ★ Solid-state silicon technology
- ★ Protecting four I/O line
- ★ RoHS compliant and Halogen Free.



DFN2510-10L



#### **Orderingin formation**

Product ID	Pack	Qty(PCS)
HPLR0524P-LF-T7	DFN2510-10L	3000

## Absolute Ratings(Tamb = 25°C)

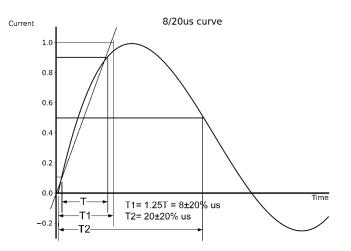
Symbol	Parameter	Value	Units
P <sub>PP</sub>	Peak Pulse Power (t <sub>p</sub> = 8/20µs)	60	W
IPP	Peak Pulse Current(8/20us)	4.5	А
TL	Maximum lead temperature for soldering during 10s	260	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>op</sub>	Operating Temperature Range	-40 to +125	°C
Tj	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±17 ±12	KV



# Electrical Characteristics (Ta= 25°C)

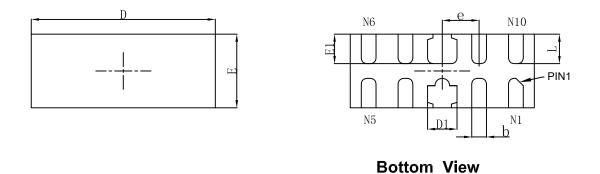
Symbol	Parameter	Test Condition	Min	Тур	Max	Units
Vrwm	Reverse Working Voltage				5.0	V
V <sub>BR</sub>	Reverse Breakdown Voltage	I⊤ = 1mA	6.0			V
IR	Reverse Leakage Current	V <sub>RWM</sub> = 5.0V			1.0	μA
Vc	Clamping Voltage	$I_{RWM} = 1A, t_p = 8/20 \mu s$		8.5		V
VC	Clamping Voltage	$I_{RWM} = 3A, t_p = 8/20 \mu s$		12		V
C	Junction Capacitance	$V_R = 0V$ , f = 1MHz Any I/O pin to GND		0.6		pF
С	Junction Capacitance	$V_R = 0V$ , f = 1MHz Any I/O pin to I/O		0.3		pF

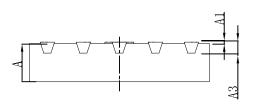
# **Typical Characteristics**





## **Outline And Dimensions**

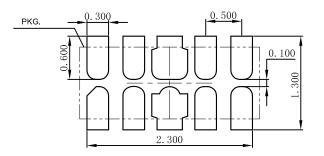




# Side View

Symbol	<b>Dimensions In Millimeters</b>		Dimensions In Inches		
	Min.	Max.	Min.	Max.	
А	0.450	0.550	0.017	0.022	
A1	0.000	0.050	0.000	0.002	
A3	0.152REF.		0.006REF.		
D	2.450	2.550	0.096	0.100	
E	0.950	1.050	0.037	0.041	
D1	0.350	0.450	0.014	0.018	
E1	0.350	0.450	0.014	0.018	
b	0.150	0.250	0.006	0.010	
е	0.500TYP.		0.020TYP.		
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## **Soledering Footprint**





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