

PJE5UFN10A

Ultra Low Capacitance TVS/ESD Protection

V_{RWM}

5 V

Features

- IEC61000-4-2(ESD): $\pm 15\text{kV}$ Air, $\pm 8\text{kV}$ Contact Compliance
- IEC61000-4-4(EFT): 20A(5/50nS)
- IEC61000-4-5(Lightning): 2.5A(8/20 μ S)
- Low leakage current, maximum 1 μ A at rated voltage
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std.
(Halogen Free)

Mechanical Data

- Case: DFN2510-10L, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00004 ounces, 0.0011 grams
- Marking: JE5U

Applications

- USB3.0 Data Line Protection
- High Definition Multi-Media Interface Protection
- Monitors and Flat Panel Displays Notebook computers
- Video Line Protection & Base Stations
- 10/100/1000 Ethernet
- HD/SD, IDSL Secondary IC Side Protection
- Control Signal Lines Protection

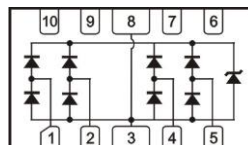
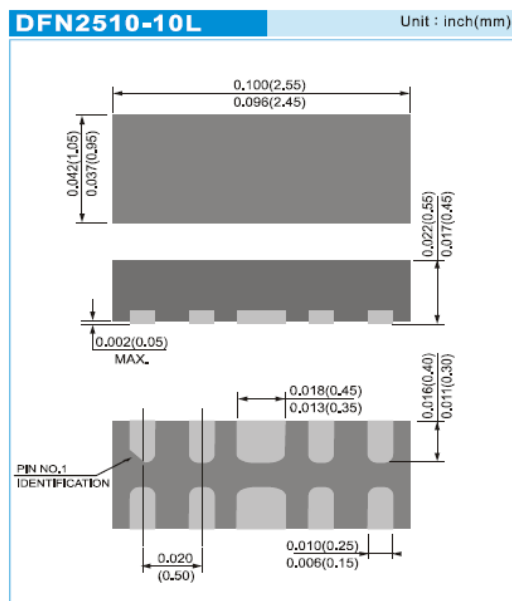


Fig.175(Top View)

Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V _{ESD}	± 15	kV
ESD IEC61000-4-2(Contact)		± 8	
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

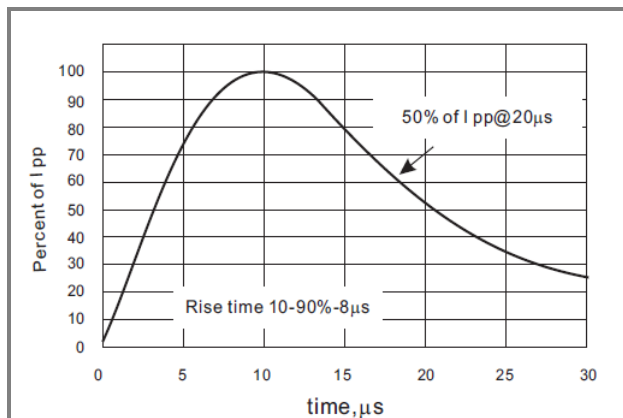
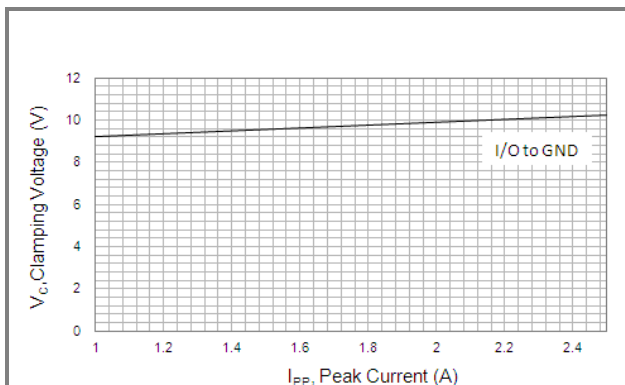
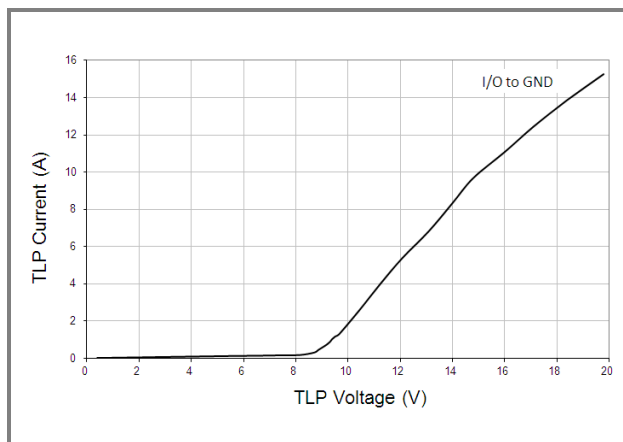
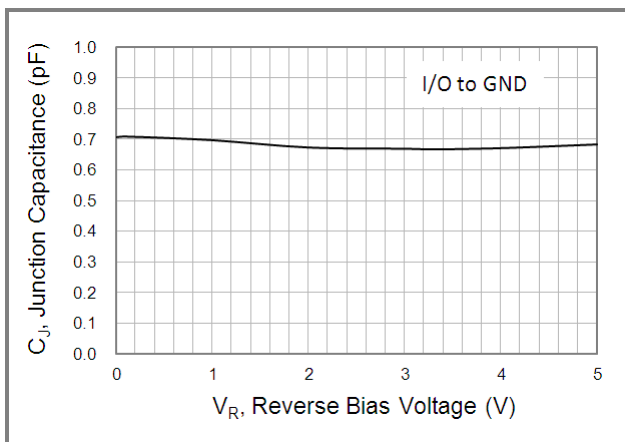
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{\text{BR}}=1\text{mA}$, Between any I/O pins to GND	6	-	9	V
Reverse leakage current	I_{R}	$V_{\text{R}}=5\text{V}$, any I/O pin to GND	-	-	1	μA
Clamping Voltage	V_{CL}	$I_{\text{PP}}=1\text{A}$, $t_{\text{P}}=8/20\mu\text{s}$, any I/O pin to GND	-	9.5	12	V
		$I_{\text{PP}}=2.5\text{A}$, $t_{\text{P}}=8/20\mu\text{s}$, any I/O pin to GND	-	11	13	
Clamping Voltage TLP ^(Note 1)	V_{CL}	$I_{\text{PP}}=4\text{A}$, $t_{\text{P}}=100\text{ns}$, any I/O pin to GND	-	12	-	V
		$I_{\text{PP}}=8\text{A}$, $t_{\text{P}}=100\text{ns}$, any I/O pin to GND	-	14	-	
Dynamic Resistance ^(Note 1)	R_{DYN}	$t_{\text{P}}=100\text{ns}$	-	0.5	-	Ω
Off State Junction Capacitance	C_{J}	0Vdc Bias $f=1\text{MHz}$, Between any I/O pins to GND	-	0.6	0.8	pF
		0Vdc Bias $f=1\text{MHz}$, Between any I/O pins	-	0.35	0.4	

NOTES :

1. Testing using Transmission Line Pulse (TLP) conditions: $Z_0 = 50\Omega$, $t_{\text{P}} = 100\text{ ns}$.

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TYPICAL CHARACTERISTIC CURVES

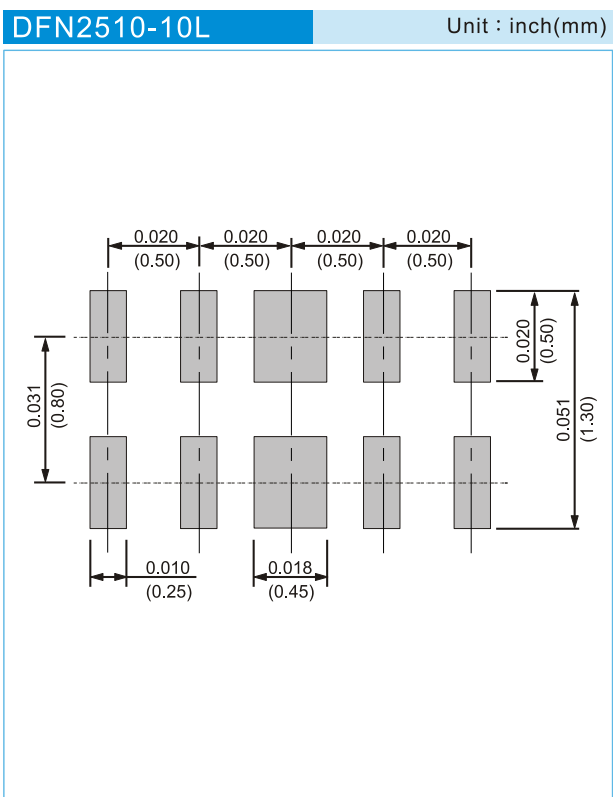


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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PJE5UFN10A	DFN2510-10L	5K pcs / 7" reel	JE5U
PJE5UFN10A	DFN2510-10L	12K pcs / 13" reel	JE5U

Mounting Pad Layout



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