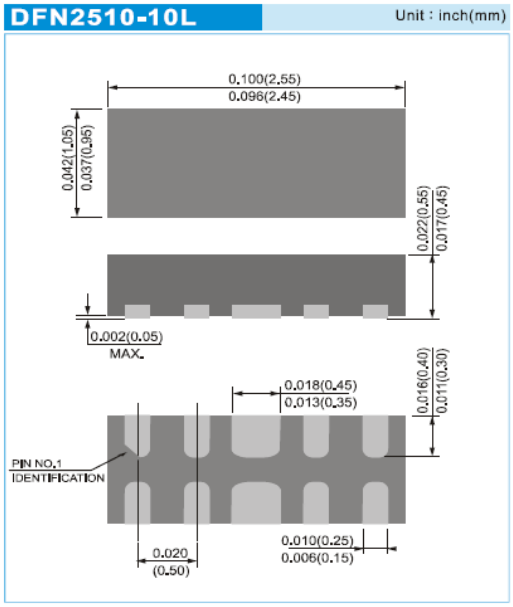
PJE5UFN10A-AU

Ultra Low Capacitance TVS/ESD Protection

V_{RWM}	5 V



Features

- IEC61000-4-2(ESD): ±15kV Air, ±8kV Contact Compliance
- IEC61000-4-4(EFT): 20A(5/50nS)
- IEC61000-4-5(Lightning): 2.5A(8/20μS)
- Low leakage current, maximum 1μA at rated voltage
- Acqire quality system certificate : TS16949
- AEC-Q101 qualified
- 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
- HDSL, IDSL Secondary IC Side Protection
- Control Signal Lines Protection

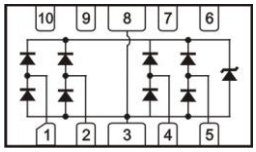


Fig.175(Top View)

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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±15 ±8	kV
Operating Junction Temperature	T_J	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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Electrical Characteristics (T_A=25°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_{BR}=1mA, Between any I/O pins to GND	6	-	9	V
Reverse leakage current	I_R	V_R=5V, any I/O pin to GND	-	-	1	μA
Clamping Voltage	V_{CL}	I_{PP}=1A, t_P=8/20μs, any I/O pin to GND	-	9.5	12	V
		I_{PP}=2.5A, t_P=8/20μs, any I/O pin to GND	-	11	13	
Clamping Voltage TLP(Note 1)	V_{CL}	I_{PP}=4A, t_P=100ns, any I/O pin to GND	-	12	-	V
		I_{PP}=8A, t_P=100ns, any I/O pin to GND	-	14	-	
Dynamic Resistance(Note 1)	R_{DYN}	t_P=100ns	-	0.5	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f=1MHz, Between any I/O pins to GND	-	0.6	0.8	pF
		0Vdc Bias f=1MHz, Between any I/O pins	-	0.35	0.4	

NOTES :

1. Testing using Transmission Line Pulse (TLP) conditions: Z_0 = 50Ω , t_P = 100 ns.

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TYPICAL CHARACTERISTIC CURVES

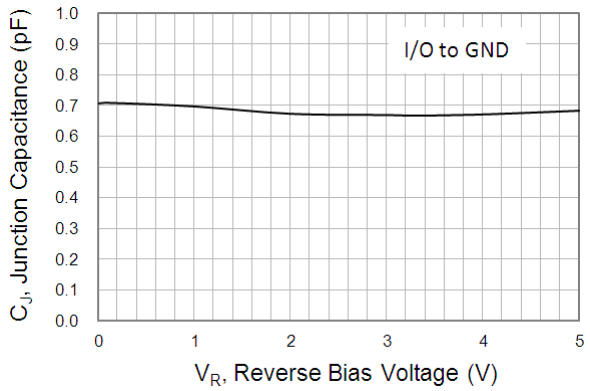

Fig.1 Typical Junction Capacitance

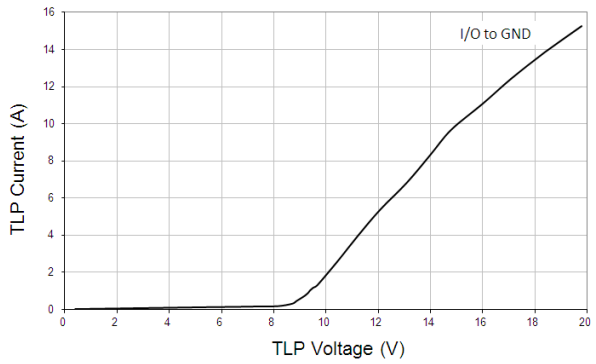

Fig2 Transmission Line Pulsing (TLP) Measurement

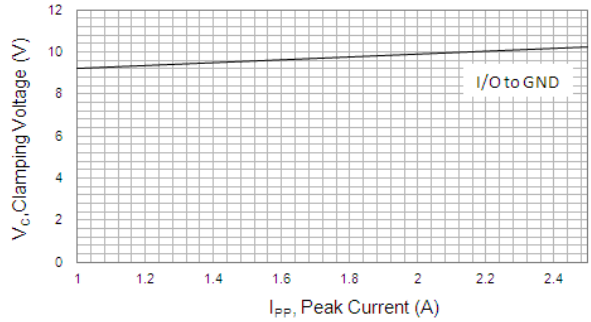

Fig.3 Typical Peak Clamping Voltage(8/20μs)

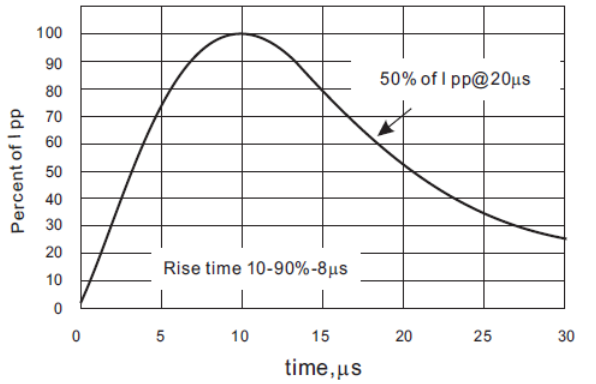

Fig.4 8/20μs Pulse Waveform

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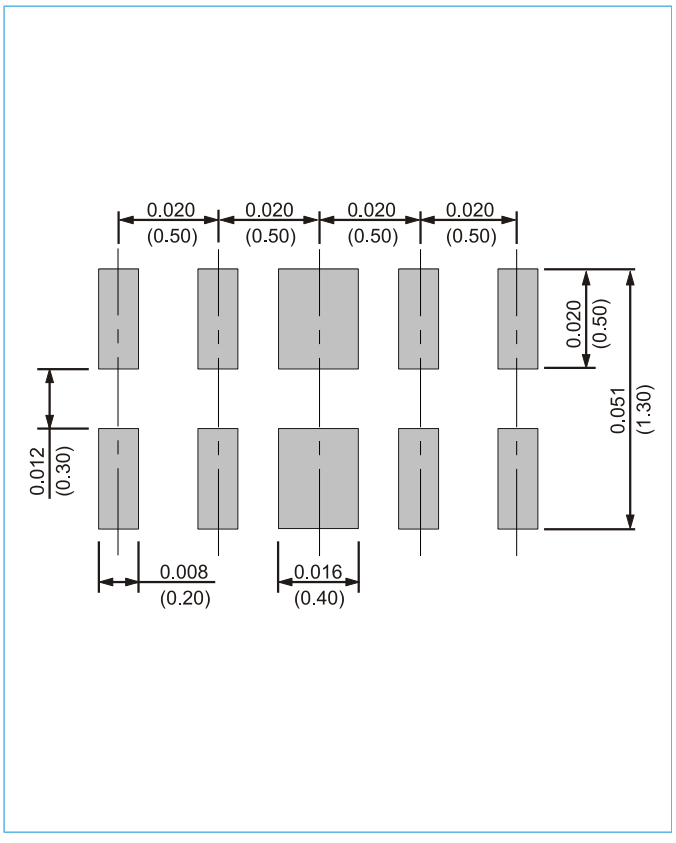
PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing type	Marking	Version
PJE5UFN10A-AU_R1_000A1	DFN2510-10L	5K pcs / 7” reel	JE5U	Halogen free
PJE5UFN10A-AU_R2_000A1	DFN2510-10L	12K pcs / 13” reel	JE5U	Halogen free

MOUNTING PAD LAYOUT

DFN2510-10L Unit : inch(mm)



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