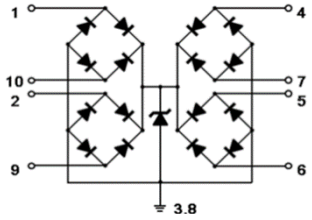
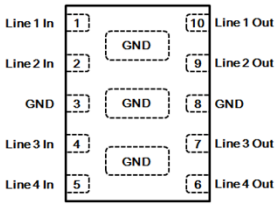
PS8A12-DHA

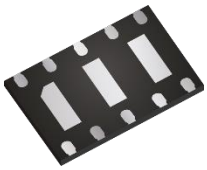
Low Capacitance ESD Protection

Voltage **2.5V**

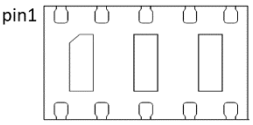
DFN3020-10L







Top view



bottom view

Part Marking	Parameter
8A3B YWXX	8A3B = Marking Code YWXX = Y - Last digit of calendar year W - Weekly XX - Tracking Code

Features

- IEC61000-4-2(ESD)：±30kV Air, ±30kV Contact
- IEC61000-4-4(EFT)：40A(5/50ns)
- IEC61000-4-5(Lightning)：40A(8/20uS)
- Low leakage current, maximum of 1uA at rated voltage
- Ultra Low clamping voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- Pb-Free/Halogen Free/BFR Free and RoHS Compliant

Mechanical Data

- Case：DFN3020-10L Package
- Terminals：Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0084 grams

Applications

- 10M/100M/1000M/2.5G Ethernet Ports
- Video Graphics Cards
- WAN/LAN Equipment
- Switching Systems
- Desktops Servers and Notebooks

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

PARAMETER	SYMBOL	VALUE	UNITS
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
Operating Junction Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

PS8A12-DHA

Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage(Note 1)	V_{RWM}	I/O Pin to GND	-	-	2.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 1mA, I/O Pin to GND	5	-	10	V
Forward Voltage	V_F	I_F = 15mA, GND to I/O Pin	-	1	-	V
Reverse Leakage Current	I_R	V_R = 2.5V, I/O Pin to GND	-	0.5	1	uA
Surge Clamping Voltage (8/20 us)	V_{CL}	I_{PP}= 40A, Line to Ground, two I/O Pins connected together on each line	-	5.3	6.3	V
Clamping Voltage TLP(Note 2)	V_{CL}	I_{TLP} = 16A, Line to Ground, two I/O Pins connected together on each line	-	2	-	V
Off State Junction Capacitance (Note 3)	C_J	V_R = 0V, f = 1MHz, I/O Pins to Ground	-	1.5	2.5	pF

NOTES :

1. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level.
2. Testing using Transmission Line Pulse (TLP) conditions: Z0 = 50Ω, t_P = 100 ns.
3. This parameter is guaranteed by design.

PS8A12-DHA

TYPICAL CHARACTERISTIC CURVES

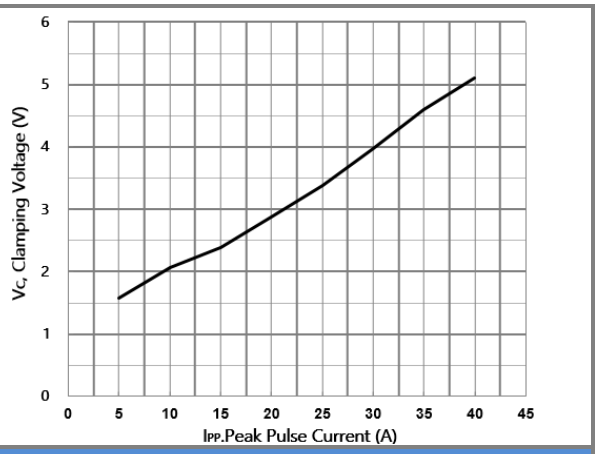


Fig.1 Typical Peak Clamping Voltage

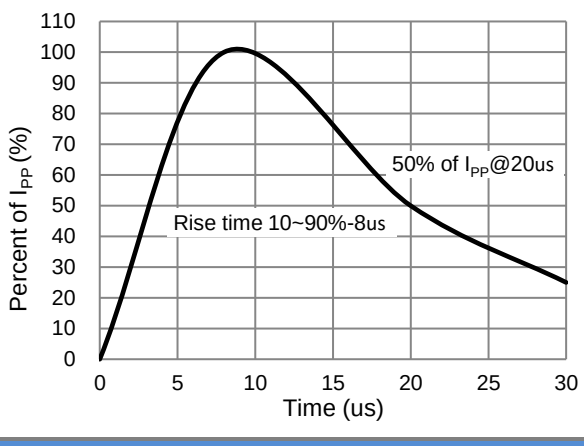


Fig.2 Pulse Waveform

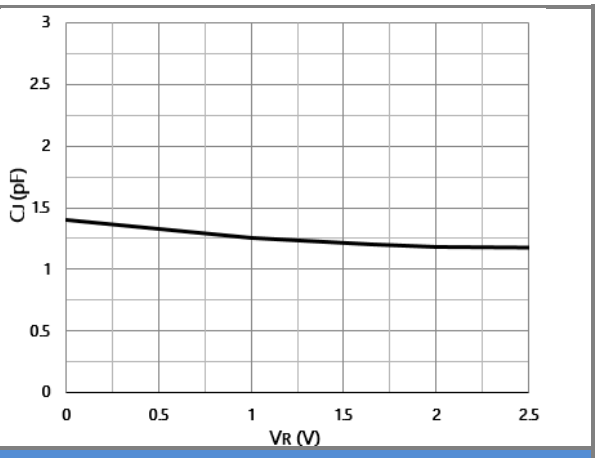


Fig.3 Typical Junction Capacitance

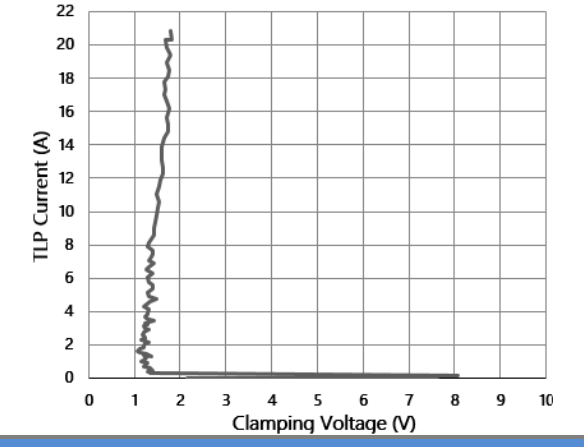


Fig.4 Positive TLP Measurement

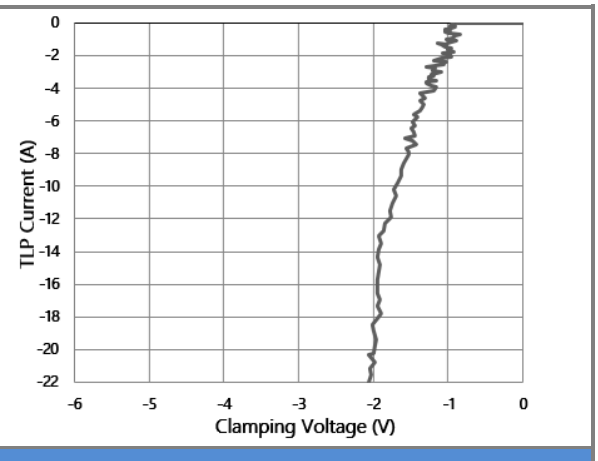


Fig.5 Negative TLP Measurement

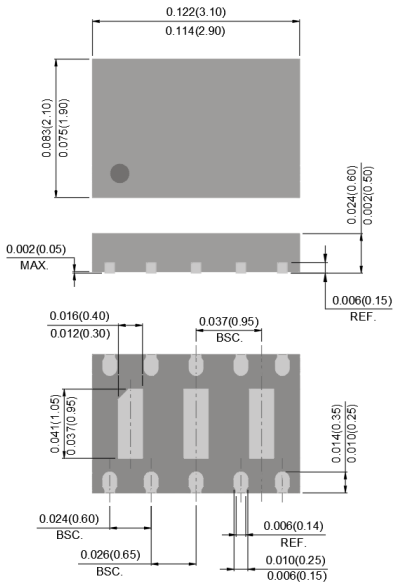
PS8A12-DHA

Product and Packing Information

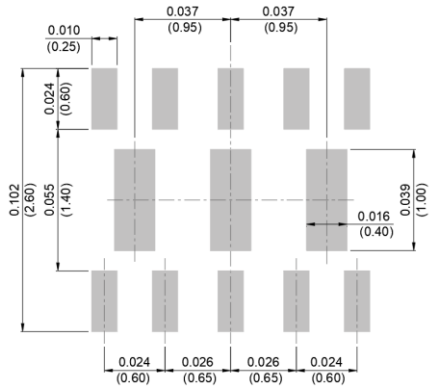
Part No.	Package Type	Packing Type	Marking
PS8A12-DHA	DFN3020-10L	3K pcs / 7" reel	8A3B

Packaging Information & Mounting Pad Layout

DFN3020-10L Dimension — Unit: inch(mm)



DFN3020-10L Pad Layout — Unit: inch(mm)



PS8A12-DHA

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.