PJSD12LCFN2

BI-DIRECTIONAL ESD PROTECTION DIODE

This bi-directional TVS has been designed to protect sensitive equipment against ESD and to prevent Latch-Up events in CMOS circuitry operating at 12Vdc and below.This offers an integrated solution to protect a single data line where the board space is a premium.

SPECIFICATION FEATURES

- 115W Power Dissipation (8/20μs Waveform)
- Low Leakage Current, Maximum of 0.1μA@12Vdc
- Very low Clamping voltage
- IEC 61000-4-2 ESD ±30kV air, ±30kV Contact Compliance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

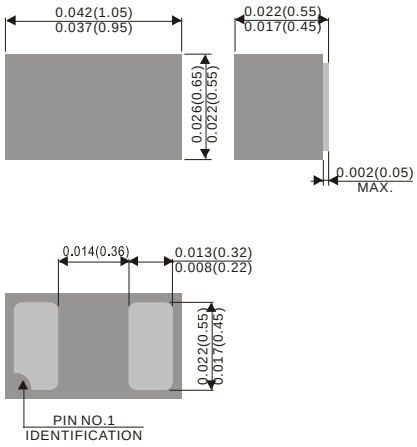
MECHANICAL DATA

- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00004 ounces ,0.001 grams
- Case : DFN 2L, Plastic
- Marking : BX

APPLICATIONS

- Video I/O ports protection
- Set Top Boxes
- Portable Instrumentation

DFN 2L Unit：inch(mm)



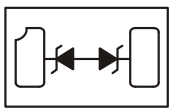


Fig.156(TOP VIEW)

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power (8/20 μs Waveform)	P_{PP}	115	W
Peak Pulse Current (8/20 μs Waveform)	I_{PPM}	5	A
ESD Voltage per IEC61000-4-2 (Contact)	V_{ESD}	± 30	kV
ESD Voltage per IEC61000-4-2 (Air)	V_{ESD}	± 30	kV
ESD Voltage (HBM)	V_{ESD}	± 8	kV
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	°C

PJSD12LCFN2

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM}		-	-	12	V
Reverse Breakdown Voltage	V_{BR}	I_{BR}=1mA	13	-	-	V
Reverse Leakage Current	I_R	V_R=12V	-	-	0.1	μA
Clamping Voltage (8/20μs)	V_C	I_{PP}=1A I_{PP}=5A	- -	- -	20 23	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz	-	15	-	pF

TYPICAL CHARACTERISTIC CURVES

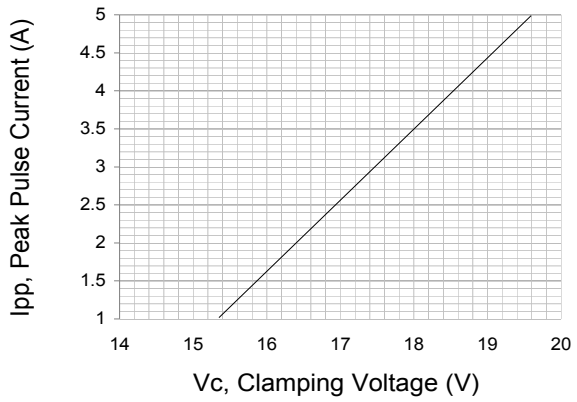


Fig.1 Typical peak clamping voltage(8/20μS)

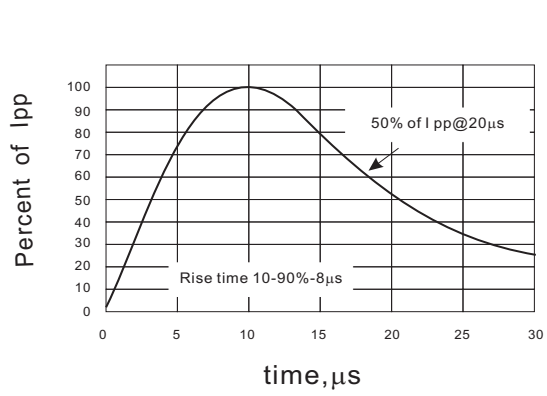


Fig.2 Pulse Waveform

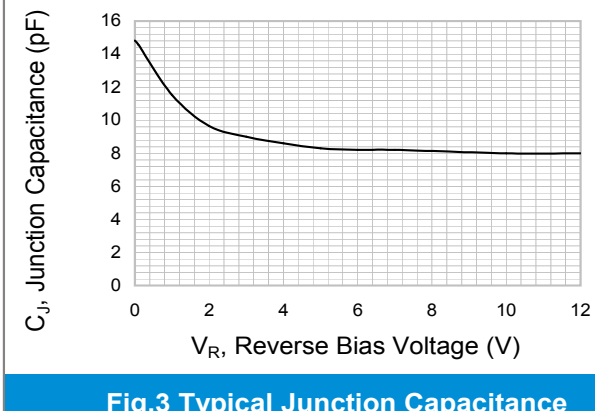


Fig.3 Typical Junction Capacitance

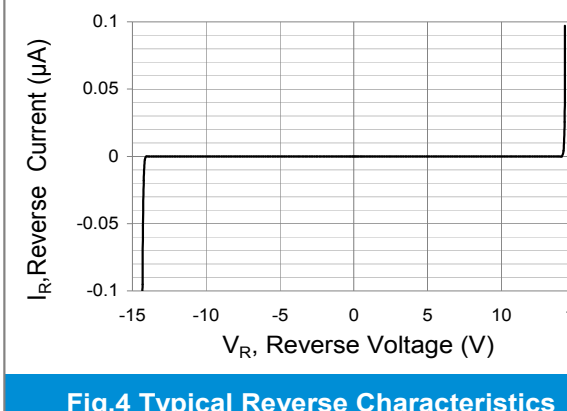


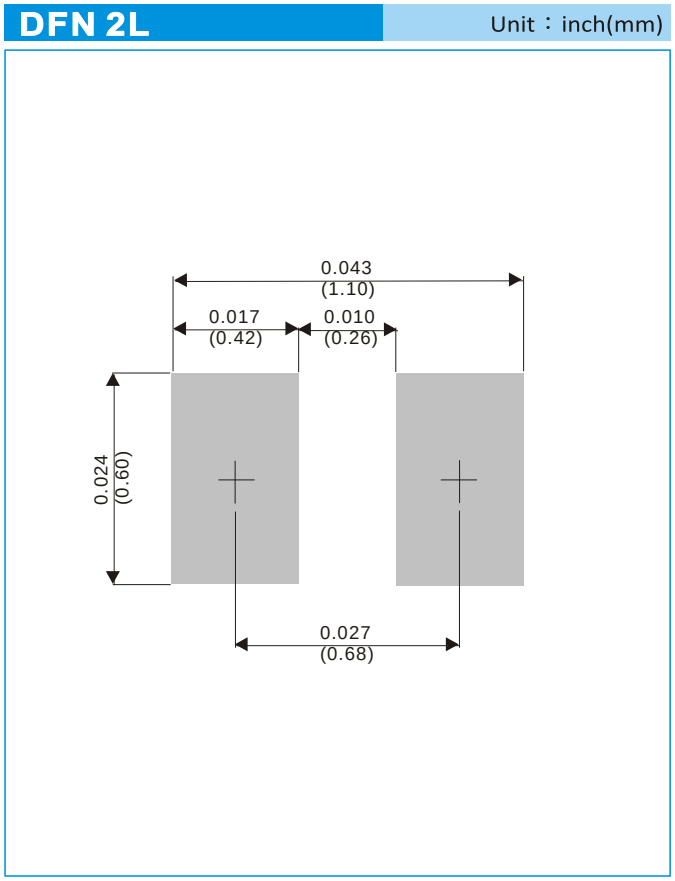
Fig.4 Typical Reverse Characteristics

PJSD12LCFN2

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PJSD12LCFN2_R1_00001	DFN 2L	8K pcs / 7” reel	BX	Halogen free

MOUNTING PAD LAYOUT



PJSD12LCFN2

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.