



# 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 (8/20 $\mu$ s Waveform)
- Low Leakage Current, Maximum of 0.1 $\mu$ A@12Vdc
- Very low Clamping voltage
- IEC 61000-4-2 ESD  $\pm$ 30kV air,  $\pm$ 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)

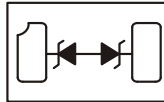
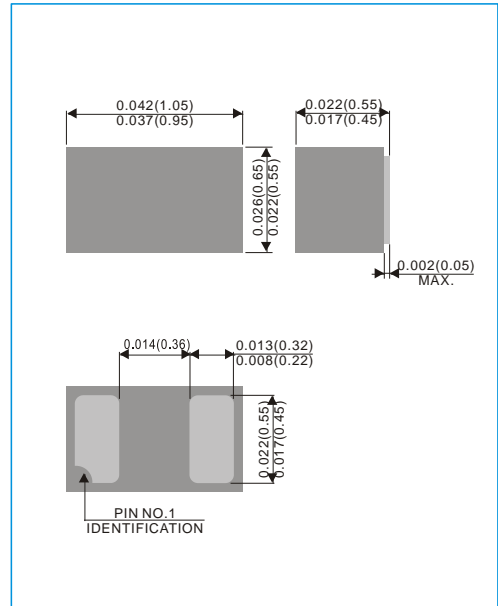


Fig.156(TOP VIEW)

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power (8/20 $\mu$ s Waveform)	PPP	115	W
Peak Pulse Current (8/20 $\mu$ s Waveform)	I <sub>PPM</sub>	5	A
ESD Voltage per IEC61000-4-2 (Contact)	V <sub>ESD</sub>	$\pm$ 30	kV
ESD Voltage per IEC61000-4-2 (Air)	V <sub>ESD</sub>	$\pm$ 30	kV
ESD Voltage (HBM)	V <sub>ESD</sub>	$\pm$ 8	kV
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C



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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V <sub>RWM</sub>		-	-	12	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	13	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =12V	-	-	0.1	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =1A I <sub>PP</sub> =5A	-	-	20 23	V
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz	-	15	-	pF

### TYPICAL CHARACTERISTIC CURVES

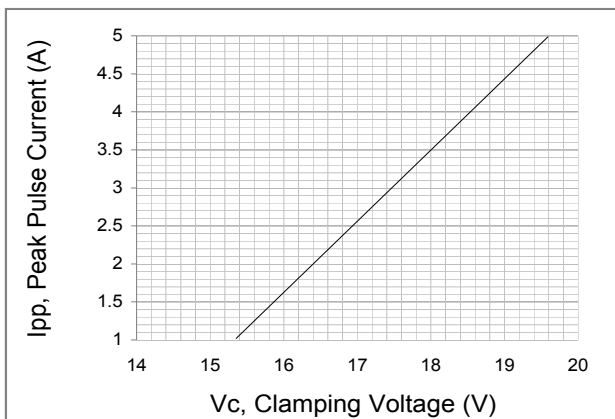


Fig.1 Typical peak clamping voltage(8/20μs)

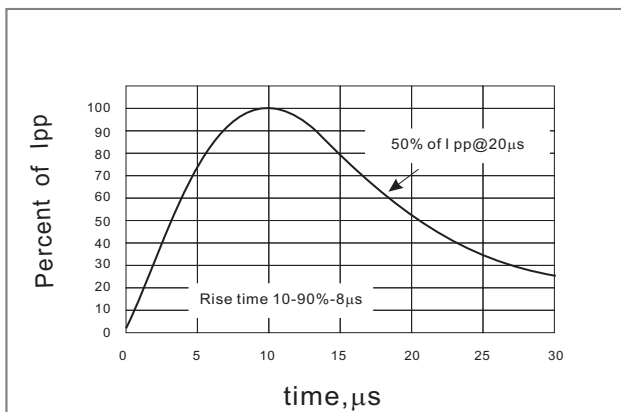


Fig.2 Pulse Waveform

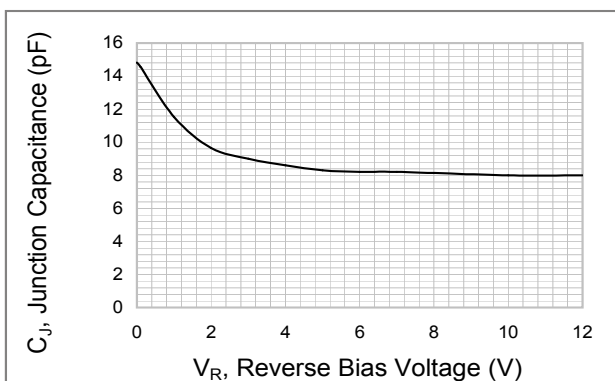


Fig.3 Typical Junction Capacitance

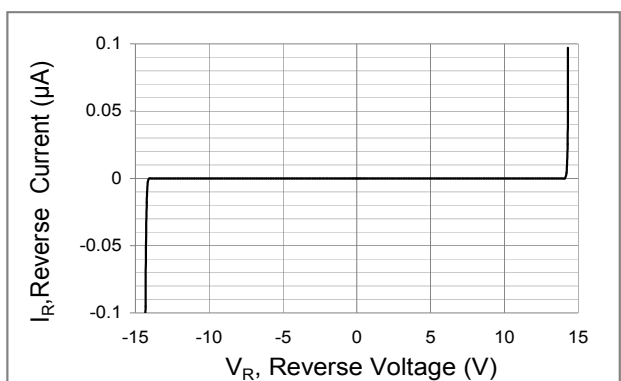


Fig.4 Typical Reverse Characteristics

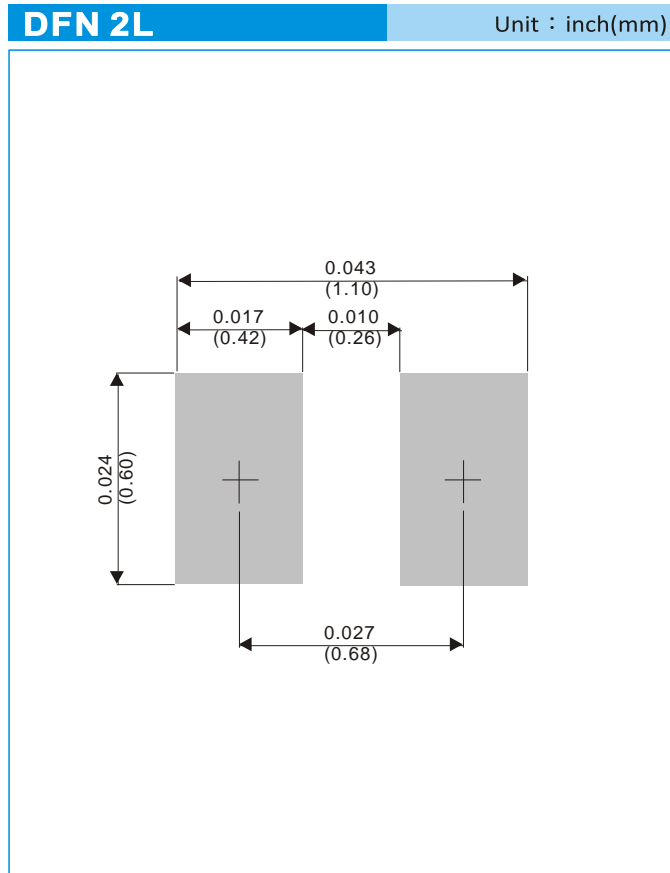


# PJSD12LCFN2

## 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





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