



# PJSD05LCFN2

## 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 5Vdc and below. This offers an integrated solution to protect a single data line where the board space is a premium.

### SPECIFICATION FEATURES

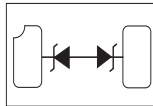
- 40W Power Dissipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 1µA@5Vdc
- Very low Clamping voltage
- IEC 61000-4-2 ESD 15kV air, 8kV Contact Compliance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### A97<5B75@85H5

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

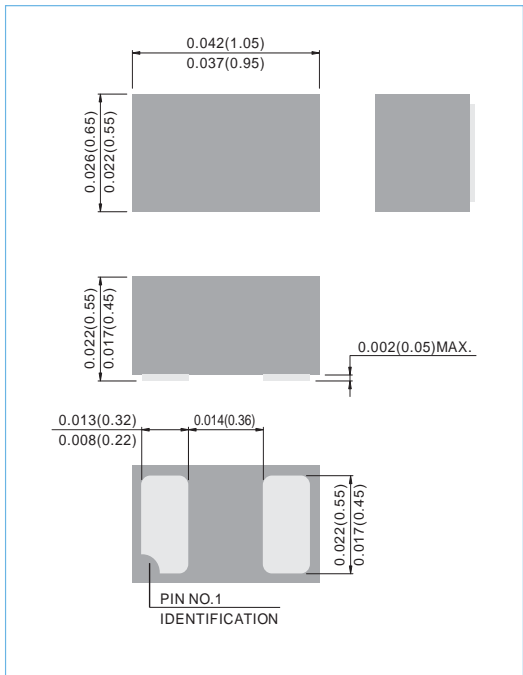
### APPLICATIONS

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



### DFN 2L

Unit : inch(mm)



### MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 µs Waveform)	PP	40	W
Peak Pulse Current (8/20 µs Waveform)	I <sub>PPM</sub>	4	A
ESD Voltage (HBM)	V <sub>ESD</sub>	>25	kV
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

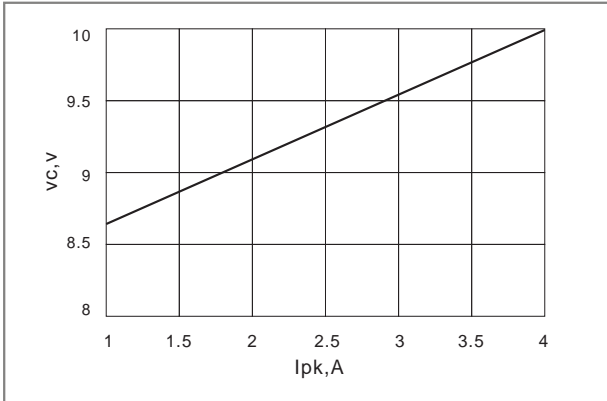
### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V <sub>WRM</sub>		-	-	5.0	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	5.78	-	7.82	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	1.0	µA
Clamping Voltage (8/20µs)	V <sub>C</sub>	I <sub>PP</sub> =4A	-	-	10	V
Off State Junction Capacitance	C <sub>J</sub>	0 Vdc Bias f=1MHz	-	-	15	pF

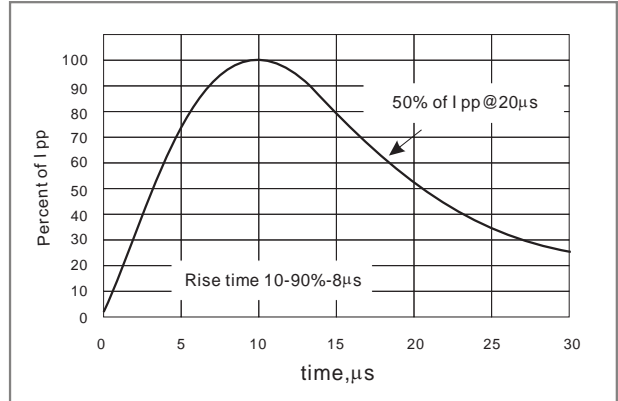


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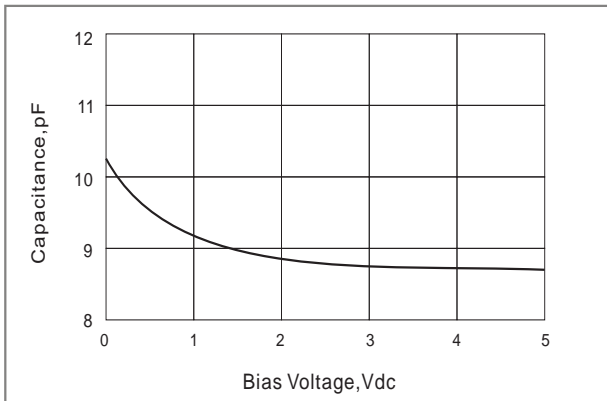
## TYPICAL CHARACTERISTIC CURVES



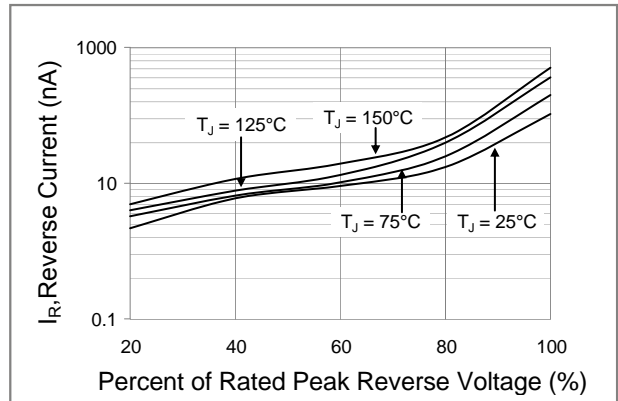
Graph showing Vc (V) vs Ipk (A). The curve shows a linear relationship between peak current and peak voltage.



Graph showing Percent of Ipp vs time (μs). The curve shows the rise time (10-90%) and the 50% of Ipp at 20μs.



Graph showing Capacitance (pF) vs Bias Voltage (Vdc). The capacitance decreases as bias voltage increases.

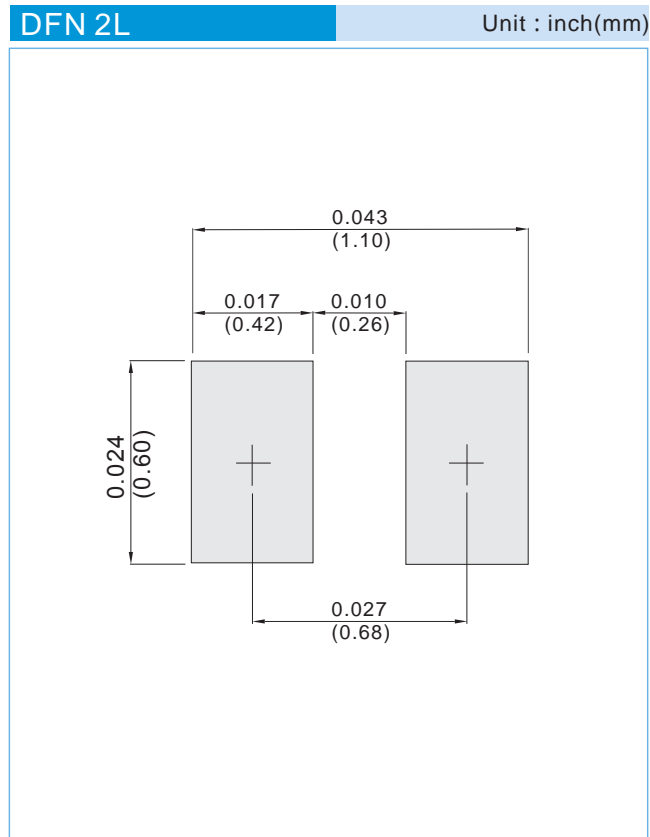


Graph showing IR, Reverse Current (nA) vs Percent of Rated Peak Reverse Voltage (%). The reverse current increases with both voltage and temperature.



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 8K per 7" plastic Reel



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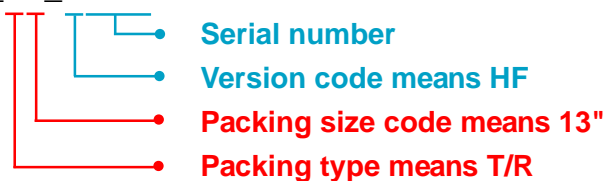
Part No\_packing code\_Version

PJSD05LCFN2\_R1\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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