



### **BI-DIRECTIONAL TVS**

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

- 200W Power Dissipation (8/20µs Waveform)
- Low Leakage Current, Maximum of 1 μA@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)

#### **MECHANICAL DATA**

• Terminals : Solderable per MIL-STD-750, Method 2026

· Case: DFN 2L, Plastic

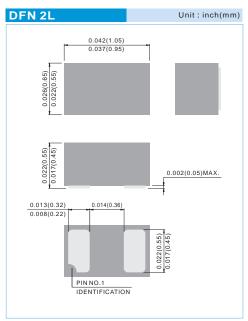
• Weight: 0.00004 ounces, 0.0011 grams

· Marking: BT

#### **APPLICATIONS**

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





### MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 μs Waveform)	РРР	200	W
Maximum Peak Pulse Current (8/20 μs Waveform)	<b>І</b> РРМ	18	А
ESD Voltage (HBM)	Vesd	>25	kV
Operating Junction and Storage Temperature Range	ТЈ,Тѕтс	-55 to +150	°C

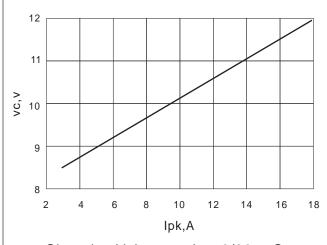
#### ELECTRICAL CHARACTERISTICS (TA=25°C)

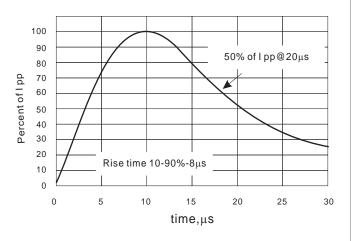
Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage	Vwrm		-	-	5.0	V
Reverse Breakdown Voltage	VBR	IBR=1mA	6	-	-	٧
Reverse Leakage Current	l R	V <sub>R</sub> =5V	-	-	1.0	μА
Clamping Voltage (8/20μs)	Vc	IPP=5A	-	-	11	V
Clamping Voltage (8/20μs)	Vc	IPP=15A	-	-	14	V
Off State Junction Capacitance	Cı	0 Vdc Bias f=1MHz	-	-	70	pF
Off State Junction Capacitance	CJ	5 Vdc Bias f=1MHz	-	-	60	pF





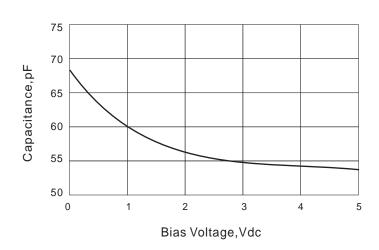
### TYPICAL CHARACTERISTICS





Clamping Voltage vs I pp 8/20 µs Surge

Pulse Waveform

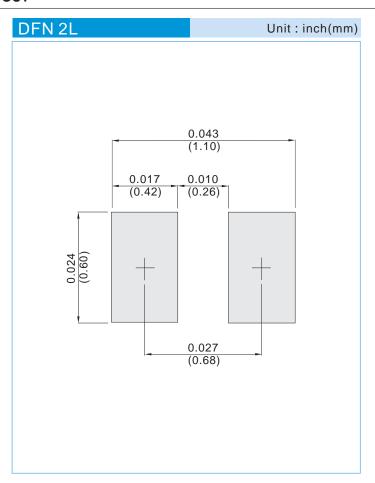


Capacitance vs. Biasing Voltage@1MHz





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 8K per 7" plastic Reel





### Part No\_packing code\_Version

PJSD05CFN2\_R1\_00001

## For example:



Packing Code XX			Version Code XXXXX			
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)	Α	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	26mm	Х			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Υ			
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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