



# PJUSB208DW

## LOW CAPACITANCE DIODE ARRAY

The PJUSB208DW has a low capacitance of 0.9pF and operates with virtually no insertion loss to 1GHz. This makes the device ideal for usage of high-speed data lines such as USB2.0, Firewire, DVI, and gigabit Ethernet interfaces.

The low capacitance array configuration enable users to apply to four high-speed data or transmission lines.

### FEATURES

- Maximum Capacitance of 1.0pF at 0Vdc 1MHz Line-to-Ground
- Low leakage current, maximum of 0.1μA at rated voltage
- Protect four I/O lines
- Flammability rating UL94V-0
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx.Weight : 0.0002 ounces,0.006 grams
- Marking : 8DW

### APPLICATIONS

- USB 2.0 and Firewire Port Protection
- LAN / WLAN Access Point terminals
- Video Signal Line Protection

### SOT-363

Unit : inch(mm)

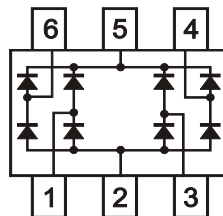
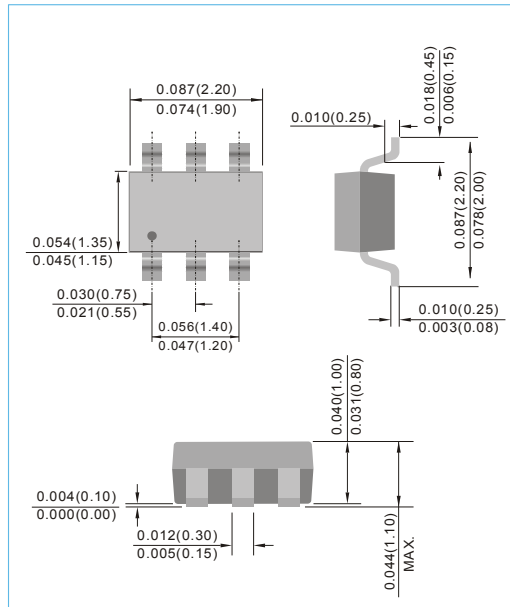


Fig.71 (TOP VIEW)

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

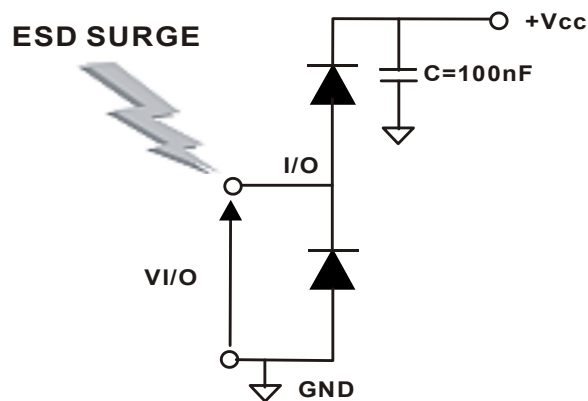
RATING	SYMBOL	VALUE	UNITS
Rectifier Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	70	V
ESD per IEC61000-4-2 (Air) (Note.1) ESD per IEC61000-4-2 (Contact) (Note.1)	V <sub>ESD</sub>	± 15 ± 8	kV
Surge Non Repetitive Forward Current-Rectangular waveform tp=1ms tp=100ms	I <sub>FSM</sub>	2 0.5	A
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C



# PJUSB208DW

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

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Reverse Stand-Off Voltage	V <sub>RRM</sub>		-	-	70	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> = 50uA	85	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 70V	-	0.04	0.1	uA
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHz between I/O lines and GND	-	-	1	pF
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHz between I/O lines	-	-	0.9	pF

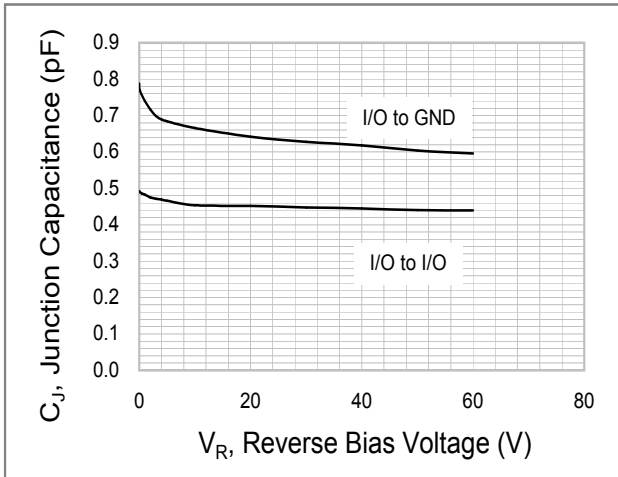


**Note.1 ESD behavior: Measurements conditions (with coupling capacitance)**

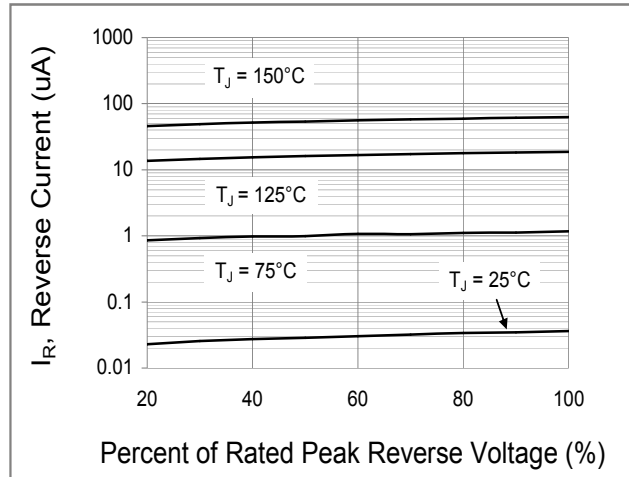


# PJUSB208DW

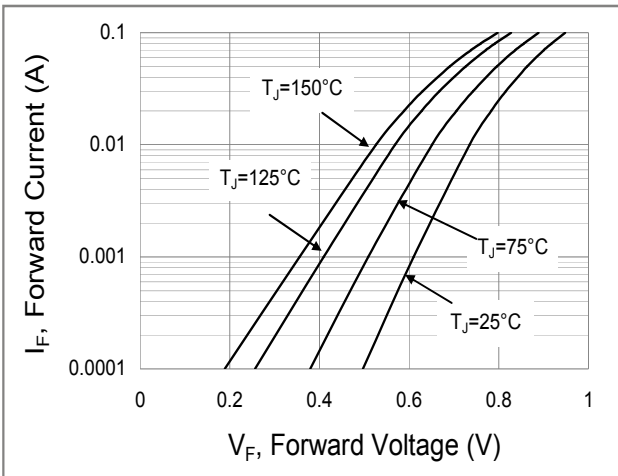
## RATING AND CHARACTERISTIC CURVES



**Fig.1 Typical Junction Capacitance**



**Fig.2 Typical Reverse Characteristics**

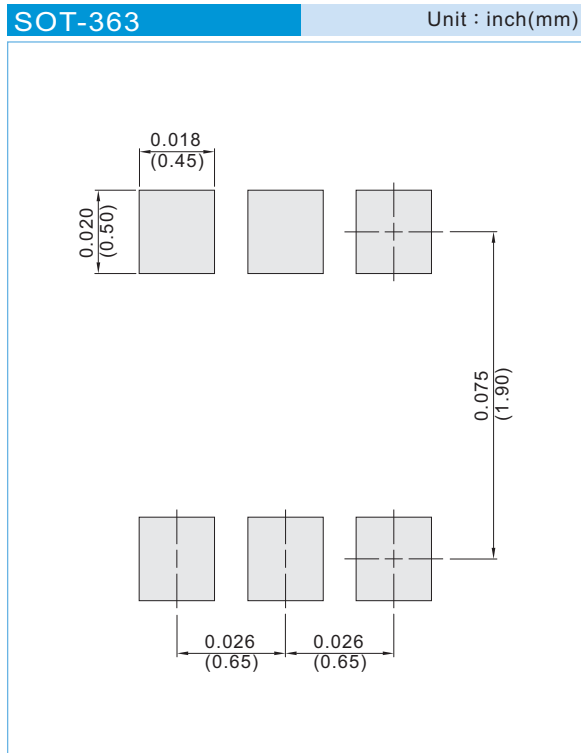


**Fig.3 Typical Forward Characteristics**



# PJUSB208DW

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



# PJUSB208DW

## Part No\_packing code\_Version

PJUSB208DW\_R1\_00001

PJUSB208DW\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## PJUSB208DW

---

### 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.