

# PJUSB208-AU SERIES

## LOW CAPACITANCE DIODE ARRAY

PJUSB208 series is surge rated diode array designed to protect high speed data interfaces. The PJUSB208 series has been specifically designed to protect sensitive components which are connect to data and transmission lines from over-voltages caused by ESD (electrostatic dischatge),EFT(electrical fast transients), and lightning.

### FEATURES

- Maximum Capacitance of 3pF at 0Vdc 1MHz Line-to-Ground
- Low leakage current, maximum of 0.1μA at rated voltage
- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Protect four I/O lines
- Flammability rating UL94V-0
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOT23-6L, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx.Weight : 0.0005 ounces, 0.014 grams
- Marking : PJUSB208 : 208  
PJUSB208R : 316

### APPLICATIONS

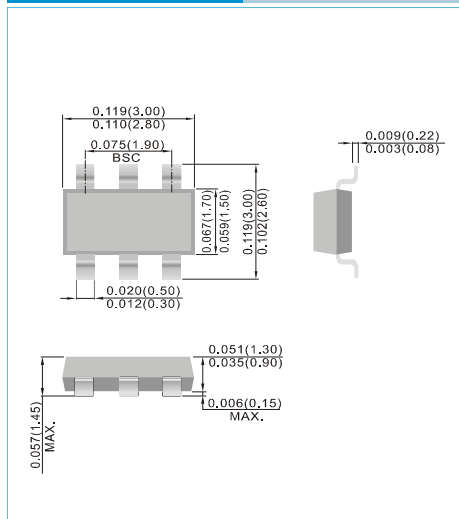
- USB 2.0 and Firewire Port Protection
- LAN / WLAN Access Point terminals
- Video Signal Line Protection

### MAXIMUM RATINGS

Rating	Symbol	Value	Units
Rectifier Repetitive Peak Reverse Voltage	$V_{RRM}$	70	V
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	$V_{ESD}$	>15 >8	kV
Surge Non Repetitive Forward Current-Rectangular waveform $t_p=2.5\mu s$ $t_p=1ms$ $t_p=100ms$	$I_{FSM}$	6 2 1	A
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	°C

#### SOT-23 6L

Unit : inch(mm)



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

PJUSB208-AU FIG.71

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> = 50μA	85	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 70V	-	0.1	1	μA
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

PJUSB208R-AU FIG.100

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> = 50μA	85	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 70V	-	0.1	1	μA
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

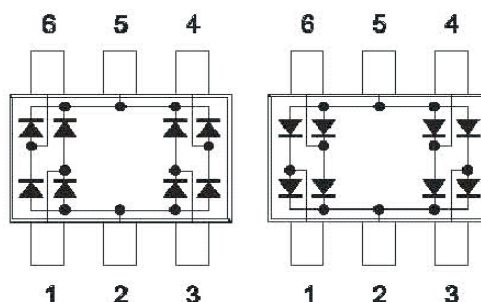
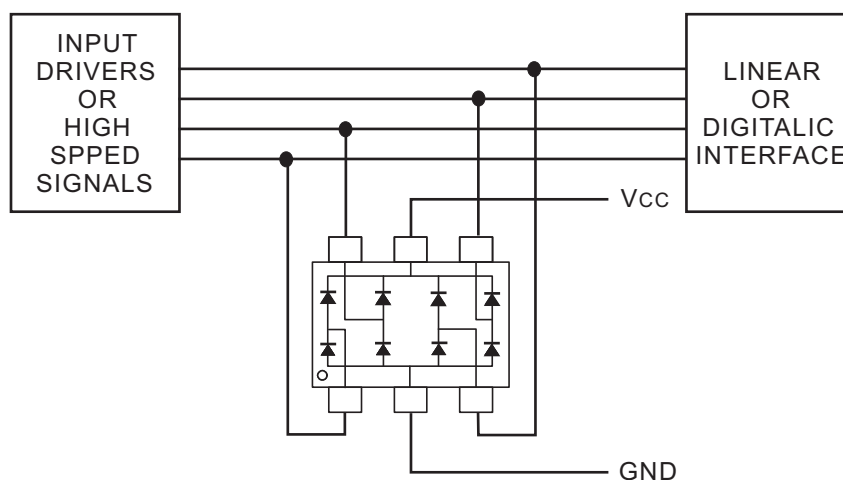


Fig.71

Fig.100



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### TYPICAL CHARACTERISTICS CURVES

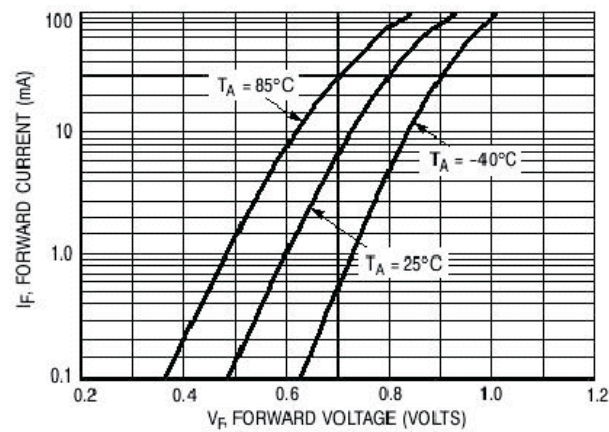


Figure 1. Forward Voltage

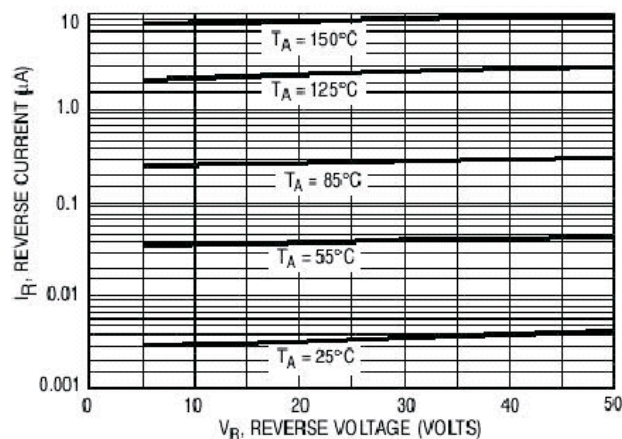


Figure 2. Leakage Current

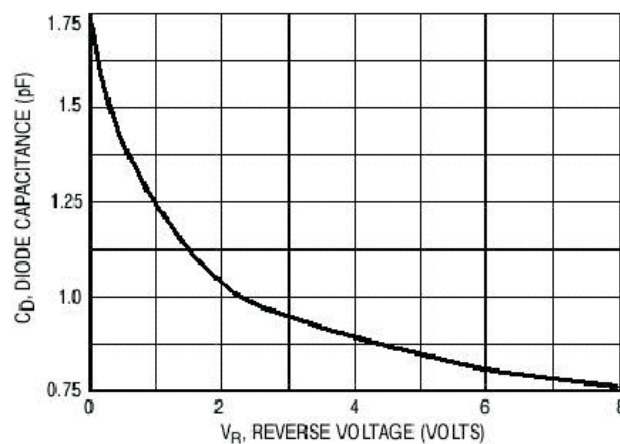


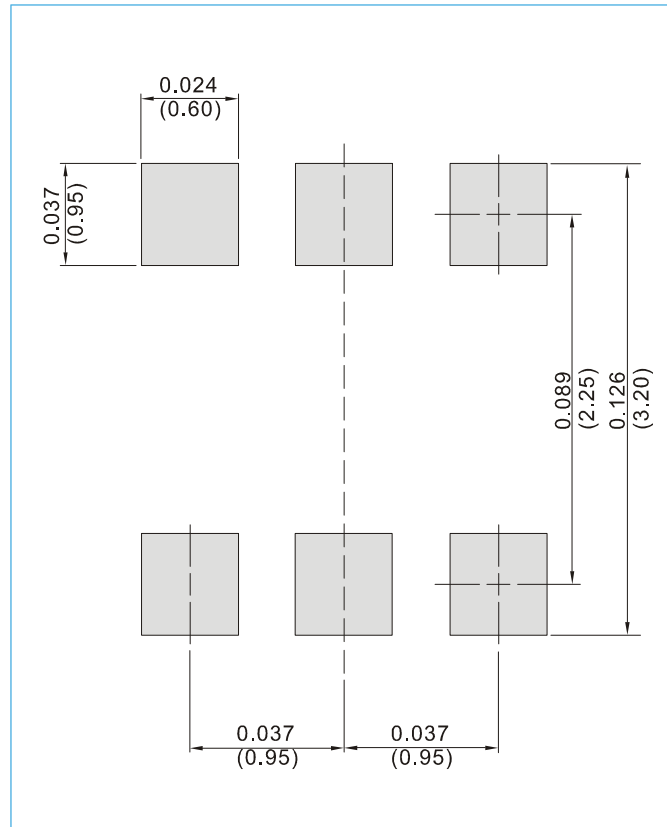
Figure 3. Capacitance

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### MOUNTING PAD LAYOUT

**SOT-23 6L**

Unit : inch(mm)



### ORDER INFORMATION

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

## PJUSB208-AU SERIES

### Part No\_packing code\_Version

PJUSB208-AU\_R1\_000A1

PJUSB208-AU\_R2\_000A1

PJUSB208-AU\_S1\_000A1

PJUSB208-AU\_S2\_000A1

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>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<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>			



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