



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 $0.1 \mu A$ at rated voltage
- · Protect four I/O lines
- Flammability rating UL94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- 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

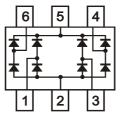


Fig.71(TOP VIEW)

0.030(0.75) 0.021(0.55) 0.045(1.15) 0.004(0.10) 0.000(0.00) 0.012(0.30) 0.005(0.15) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00) 0.000(0.00)

MAXIMUM RATINGS (Ta=25°C unlesss otherwise noted)

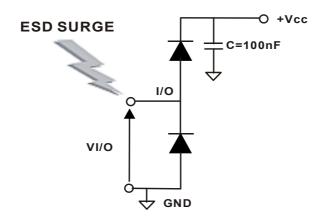
| RATING | SYMBOL | VALUE | UNITS |
|--------------------------------------------------------------------------------|---------|---------------------------|-------|
| Rectifier Repetitive Peak Reverse Voltage | VRRM | 70 | V |
| ESD per IEC61000-4-2 (Air) (Note.1) ESD per IEC61000-4-2 (Contact) (Note.1)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





ELECTRICAL CHARACTERISTICS (TJ=25°C)

| PARAMETER | SYMBOL | CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------|--------|------------------------------------------|------|------|------|------|
| Peak Reverse Stand-Off Voltage | VRRM | | - | - | 70 | V |
| Reverse Breakdown Voltage | VBR | I BR = 50uA | 85 | - | - | V |
| Reverse Leakage Current | IR | VRWM = 70V | - | 0.04 | 0.1 | uA |
| Off State Junction Capacitance | Cı | 0Vdc,f=1MHz between I/O lines and GND | - | - | 1 | pF |
| Off State Junction Capacitance | Cı | 0Vdc,f=1MHz between I/O lines | - | - | 0.9 | pF |



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





RATING AND CHARACTERISTIC CURVES

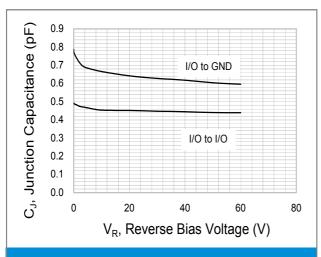


Fig.1 Typical Junction Capacitance

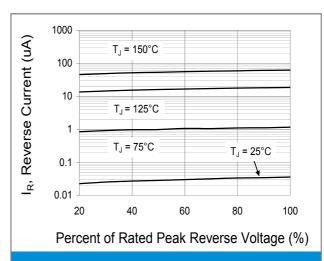


Fig.2 Typical Reverse Characteristics

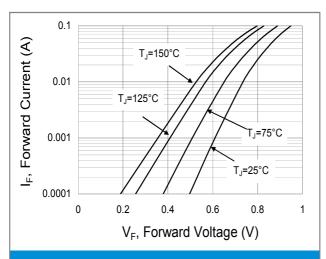
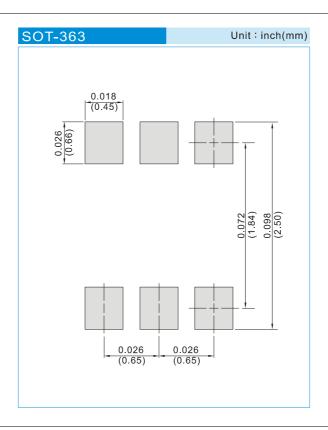


Fig.3 Typical Forward Characteristics





MOUNTING PAD LAYOUT



ORDER INFORMATION

• Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel





Part No_packing code_Version

PJUSB208DW_R1_00001 PJUSB208DW_R2_00001

For example:



| Packing Code XX | | | Version Code XXXXX | | | |
|--------------------------------------|----------------------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th 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 | 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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