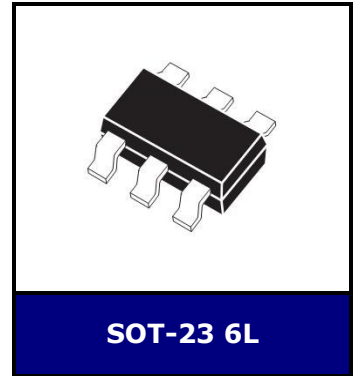




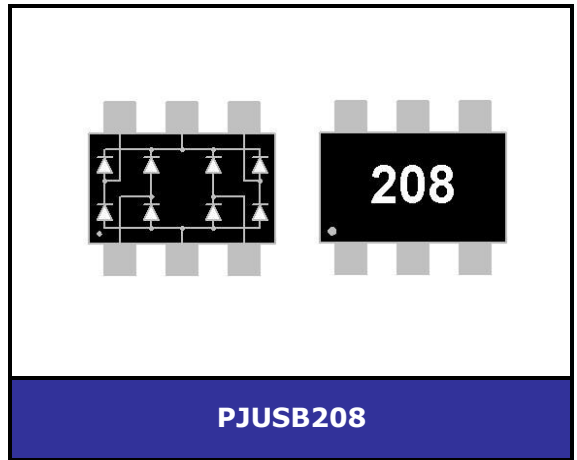
LOW CAPACITANCE TVS DIODE ARRAY

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 discharge), EFT (electrical fast transients), and lightning. During transient conditions, the steering diodes direct the transient to either the positive side of the power supply line or to ground. The maximum clamping voltage seen by the protected circuit will be one diode drop (V_F) above the supply (reference) voltage.



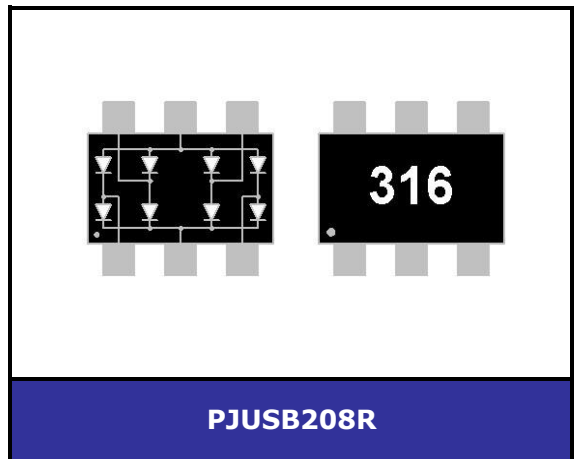
SPECIFICATION FEATURES

- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current, maximum of 0.1uA at rated voltage
- Low clamping voltage
- Peak current dissipation of 24A under 8/20us waveform
- Protect four I/O lines.
- Molded JEDEC SOT-23 6L package
- Flammability rating UL94V-0
- Lead Free package 100% tin plating matt finish



APPLICATIONS

- USB 2.0 Power and Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- 10/100/1000 Ethernet
- ATM Interfaces



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Pulse Current (8/20us waveform)	I_{PP}	24	A
Rectifier Repetitive Peak Reverse Voltage	V_{RRM}	70	V
ESD per IEC61000-4-2 (Air)	V_{ESD}	>8	kV
ESD per IEC61000-4-2 (Contact)		>15	
Operating Temperature Range	T_J	-55~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C



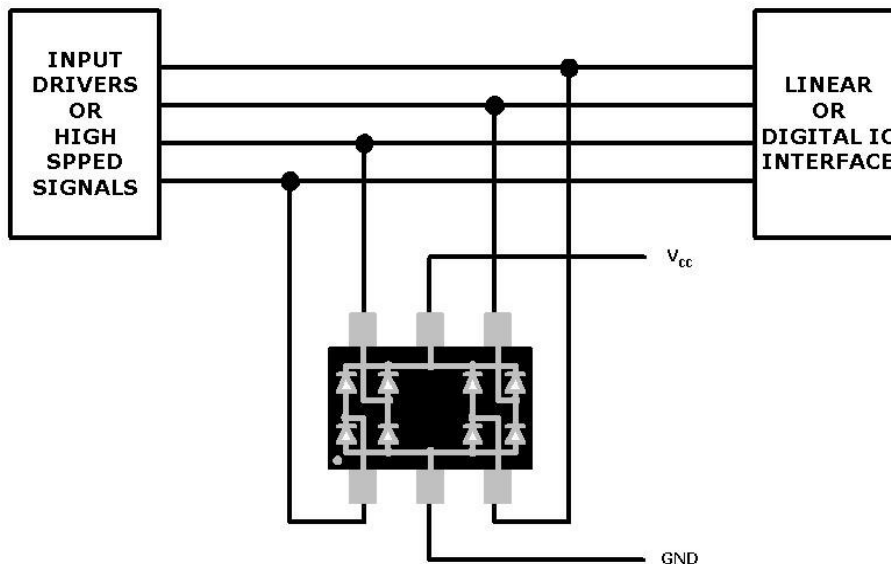
ELECTRICAL CHARACTERISTICS (T_J=25°C)

PJUSB208

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak Reverse Stanf-Off Voltage	V _{RRM}				70	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =50uA	85			V
Reverse Leakage Current	I _R	V _{RWM} =70V		0.1	1	uA
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =1A			1.5	V
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =10A			3.3	V
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =24A			7	V
Off State Junction Capacitance	C _J	0Vdc, f=1MHZ between I/O lines and GND		1.75	3	pF
Off State Junction Capacitance	C _J	0Vdc, f=1MHZ between I/O lines			1	pF

PJUSB208R

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak Reverse Stanf-Off Voltage	V _{RRM}				70	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =50uA	85			V
Reverse Leakage Current	I _R	V _{RWM} =70V		0.1	1	uA
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =1A			1.5	V
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =10A			3.3	V
Forward Clamping Voltage (8/20us)	V _{FC}	I _{pp} =24A			7	V
Off State Junction Capacitance	C _J	0Vdc, f=1MHZ between I/O lines and GND		1.75	3	pF
Off State Junction Capacitance	C _J	0Vdc, f=1MHZ between I/O lines			1	pF





TYPICAL CHARACTERISTICS CURVES

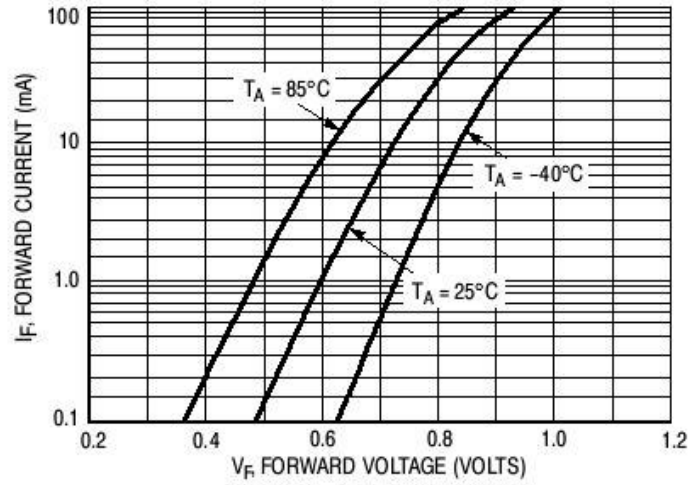


Figure 1. Forward Voltage

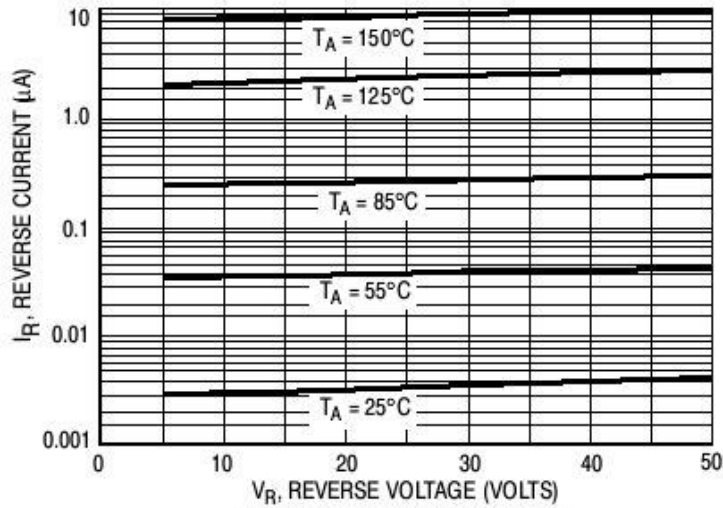


Figure 2. Leakage Current

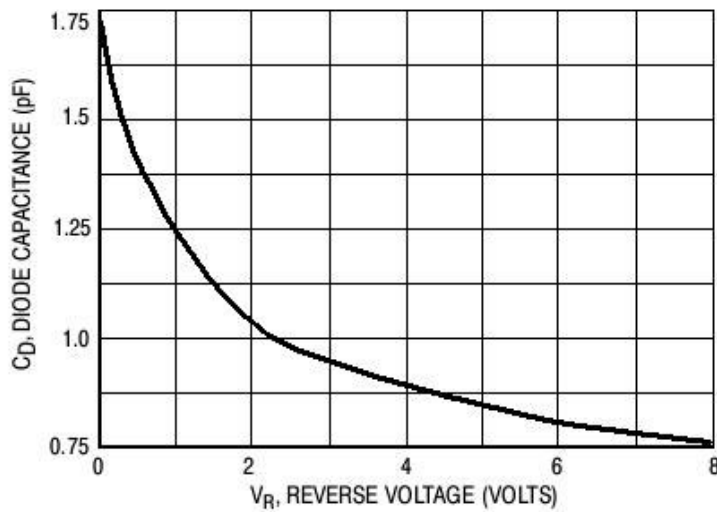
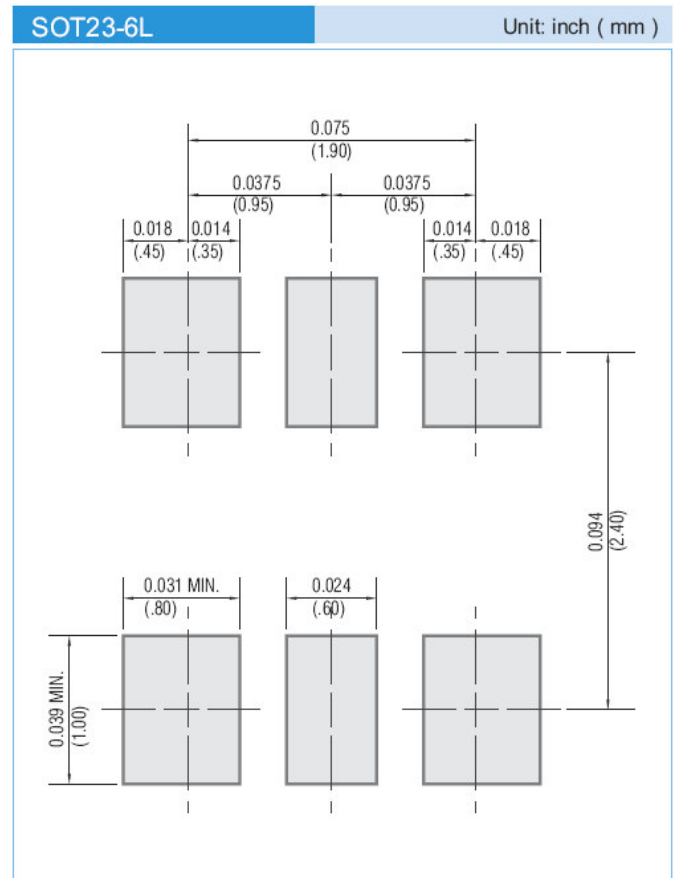
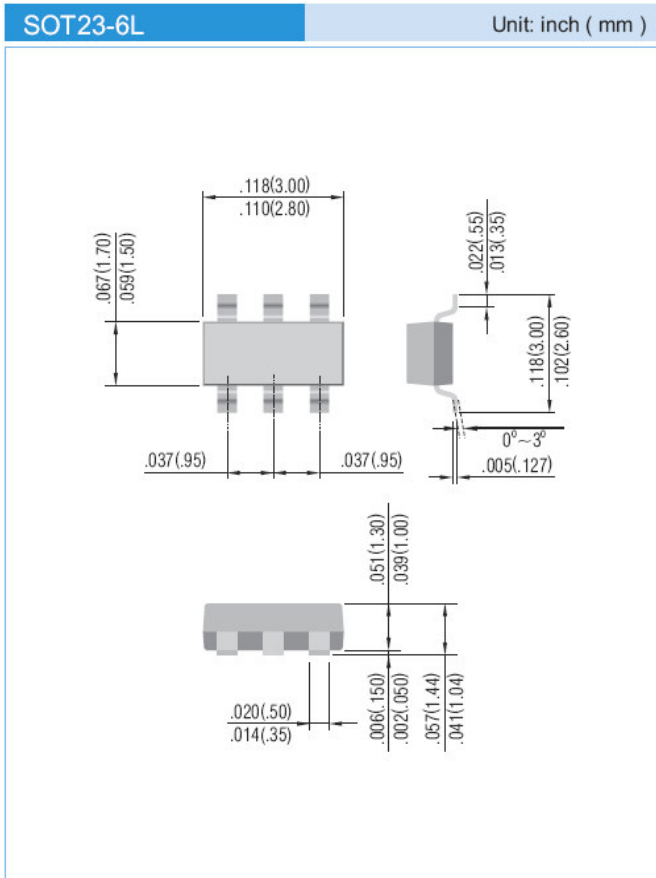


Figure 3. Capacitance



PACKAGE AND SUGGESTED PAD LAYOUT DIMENSION



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