



PJSRV05-4

LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05-4 has a low capacitance of 2.1pF and operates with virtually no insertion loss to 1GHz. This makes the device ideal for protection of high-speed data lines such as USB2.0, firewire, DVI, and gigabit Ethernet interfaces. The low capacitance array configuration allows the user to protect Four high-speed data or transmission lines. The low inductance construction minimizes voltage overshoot during high current surges. They may be used to meet the ESD immunity requirements of IEC61000-4-2, Level 4 (15kV air, 8kV contact discharge).

VOLTAGE 5 Volts **POWER** 350Watts

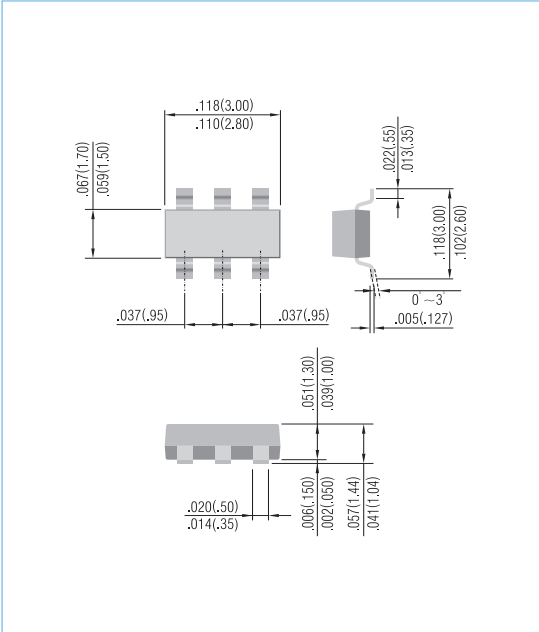
SOT23-6L Unit: inch (mm)

FEATURES

- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current, maximum of 1 μA at rated voltage
- Low clamping voltage
- Peak power dissipation of 350W under 8/20 μs waveform
- Protect four I/O lines
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOT23-6L, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: approximately 0.013gram
- Marking : 054



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

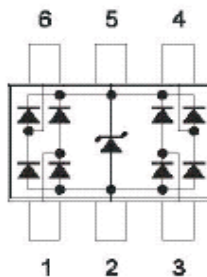


Fig.70

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 μs Waveform)	P _{PP}	350	W
Peak Pulse Current (8/20 μs Waveform)	I _{PPM}	12	A
ESD Voltage (HBM Contact)	V _{ESD}	>8	kV
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C



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Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{WRM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA,$ PIN 5 to 2	6	-	-	V
Reverse Leakage Current	I_R	$V_R=5V,$ PIN 5 to 2	-	1.2	5	μA
Clamping Voltage (8/20 μs)	V_C	$I_{PP}=1A,$ ANY I/O pin to pin 2	-	-	12	V
Clamping Voltage (8/20 μs)	V_C	$I_{PP}=5A,$ ANY I/O pin to pin 2	-	-	17	V
Off State Junction Capacitance	C_J	0Vdc, f=1.0MHz between I/O lines and GND	-	1.1	1.2	pF
Off State Junction Capacitance	C_J	0Vdc, f=1.0MHz between I/O lines	-	0.55	0.60	pF



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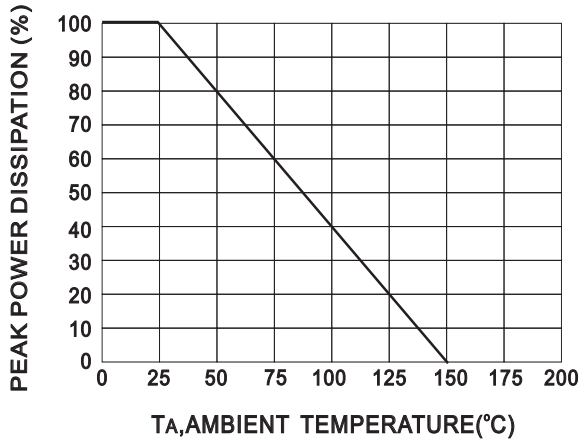


Fig 1. Power Derating Curve

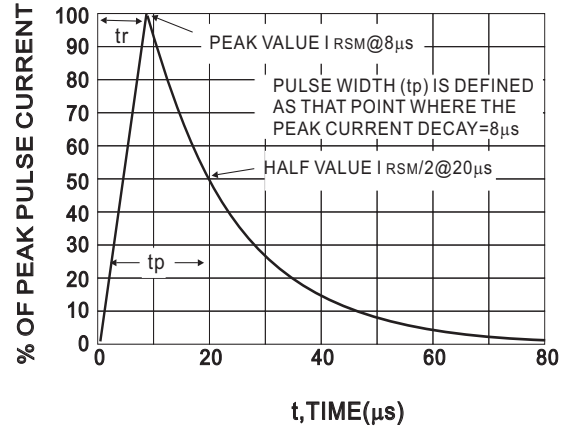


Fig 2. 8x20µs Pulse Waveform

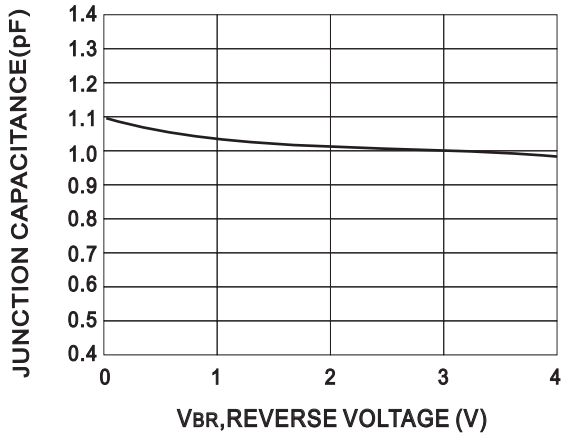


Fig 3. Junction Capacitance vs Reverse Voltage

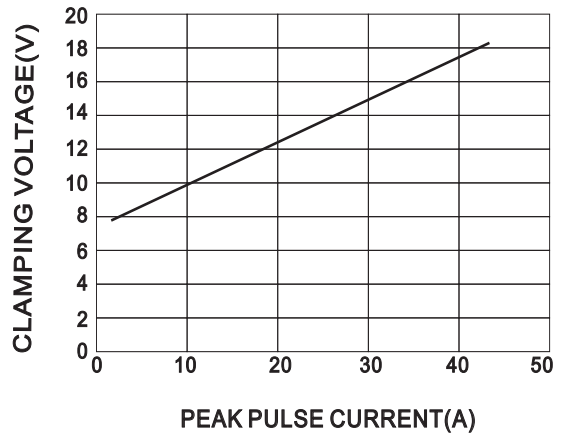


Fig 4. Clamping Voltage vs Peak Pulse Current (8x20µs Waveform)

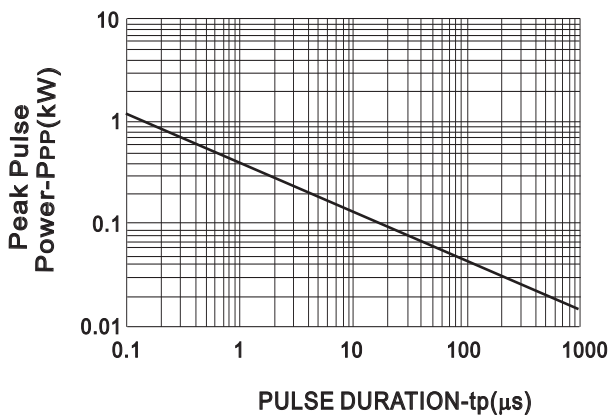


Fig 5. Non-Repetitive Peak Pulse vs. Pulse Time

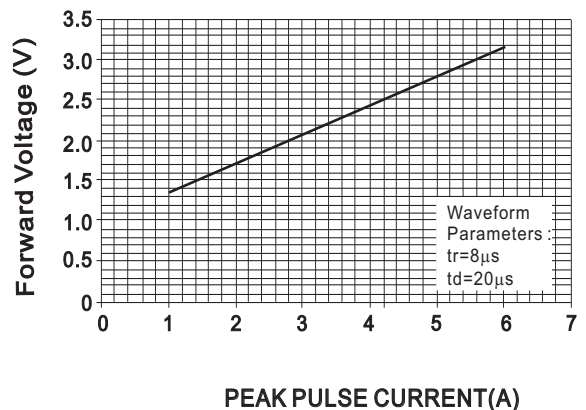
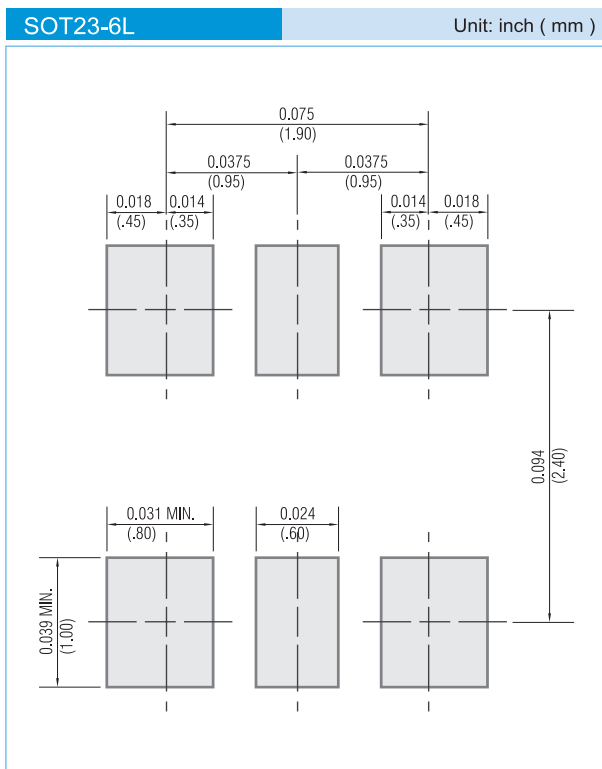


Fig 6. Forward Voltage vs. Forward Current



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

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