



PJSRV05-4

LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05-4 has a low capacitance of 1.2pF 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 Volt	POWER	350 Watt
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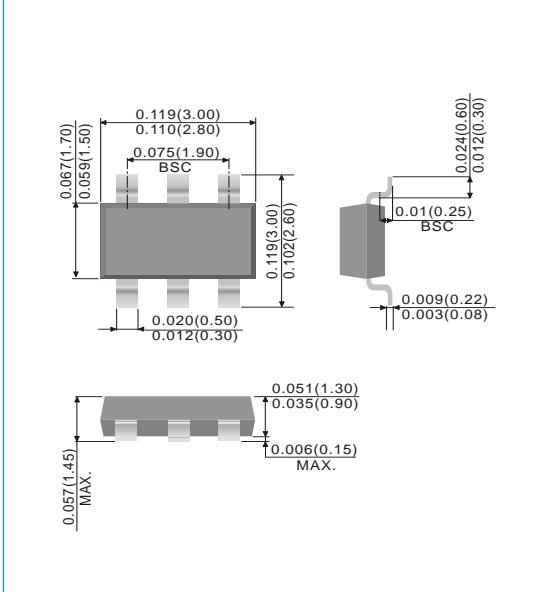
SOT-23 6L	Unit : inch(mm)
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FEATURES

- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current, maximum of 1µA at rated voltage
- Low clamping voltage
- Peak power dissipation of 350W under 8/20µs waveform
- Protect four I/O lines
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOT-23 6L, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx weight : 0.0005 ounces, 0.014 grams
- 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

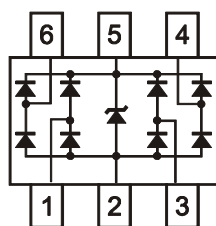


Fig.70(TOP VIEW)

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (8/20 µs Waveform)	PPP	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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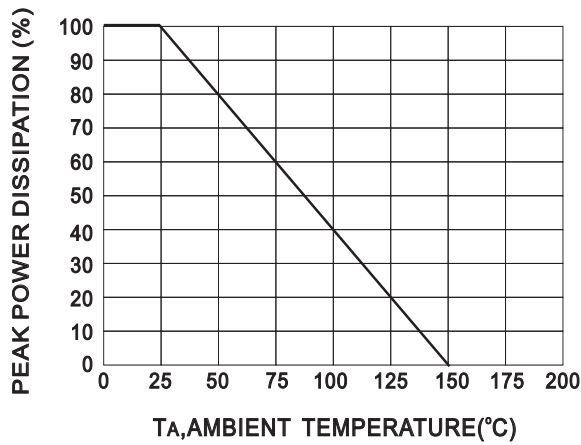


Fig 1. Power Derating Curve

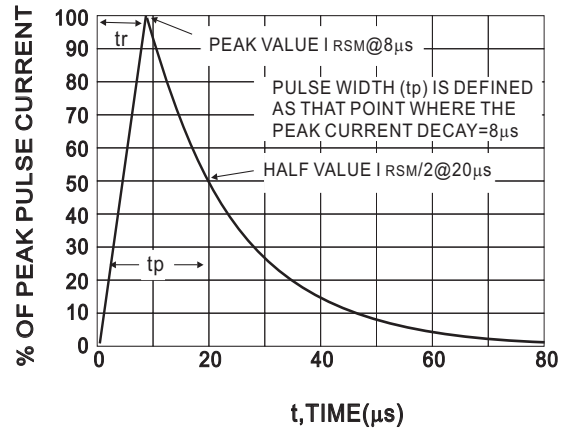


Fig 2. 8x20µs Pulse Waveform

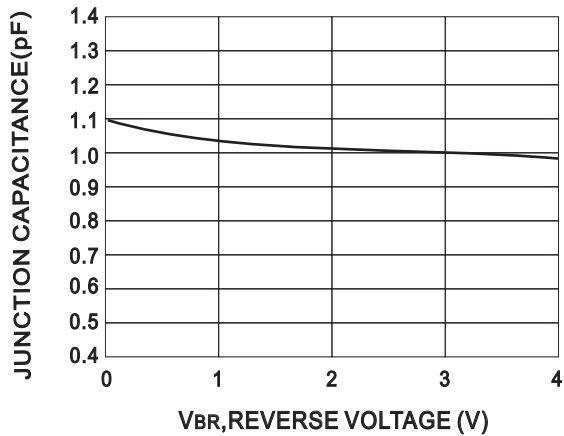


Fig 3. Junction Capacitance vs Reverse Voltage

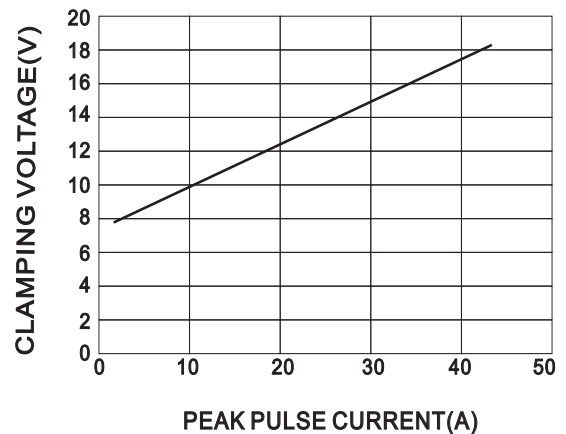


Fig 4. Clamping Voltage vs Peak Pulse Current (8x20µs Waveform)

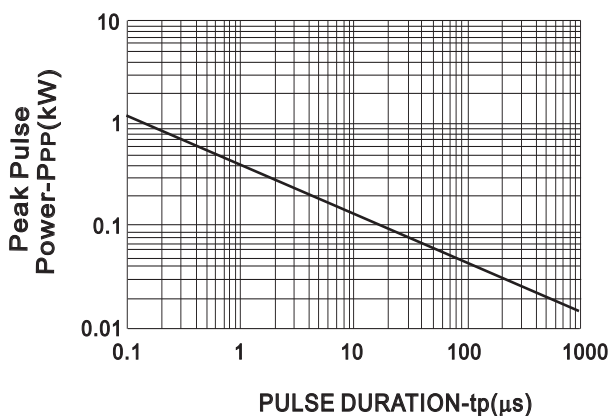


Fig 5. Non-Repetitive Peak Pulse vs. Pulse Time

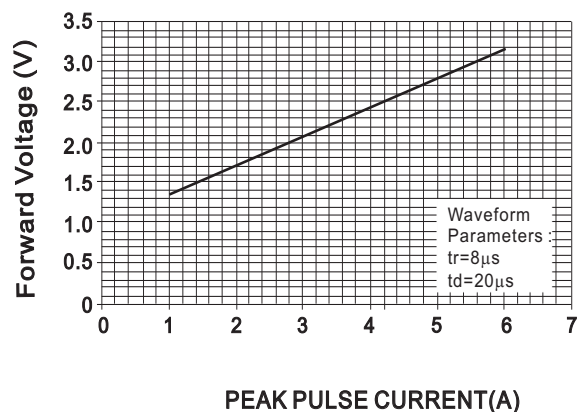
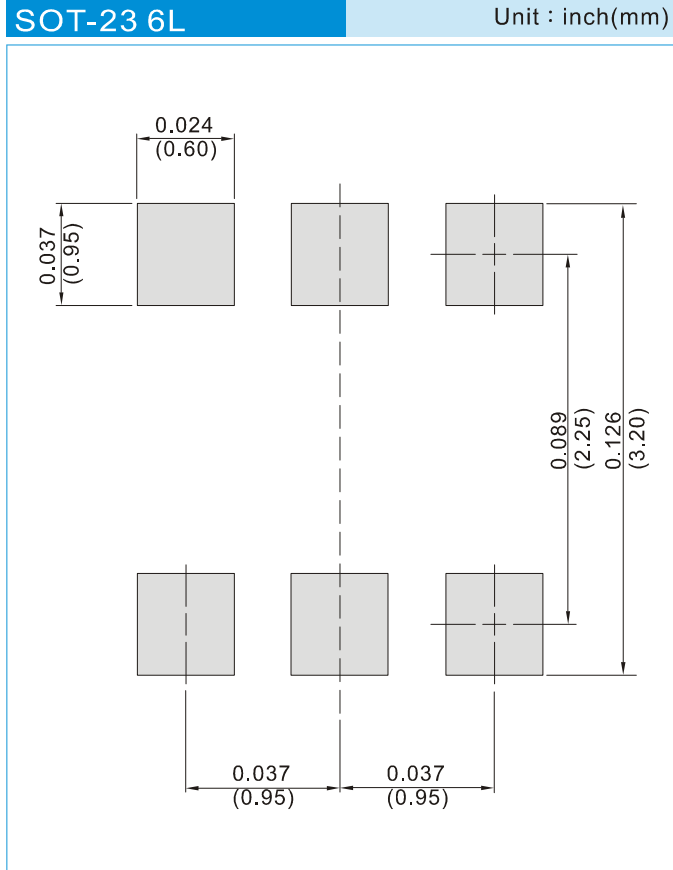


Fig 6. Forward Voltage vs. Forward Current



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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



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Part No_packing code_Version

PJSRV05-4_R1_00001

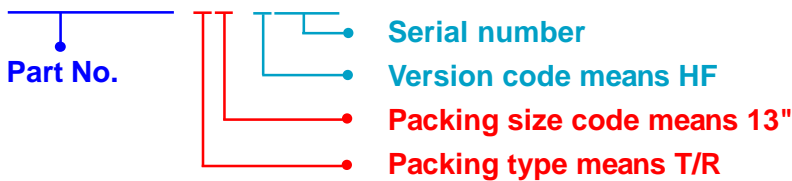
PJSRV05-4_R2_00001

PJSRV05-4_S1_00001

PJSRV05-4_S2_00001

For example :

RB500V-40_R2_00001



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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	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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