



PJSRV05W-4W6

LOW CAPACITANCE TVS DIODE ARRAY

The PJSRV05W-4W6 has a low typical capacitance of 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 surge.

FEATURES

- IEC61000-4-2 ESD 15kV Air, 8kV Contact compliance
- Low leakage current
- Low clamping voltage
- Peak power dissipation of 50W under 8/20µs waveform
- Protect four I/O lines
- Molded JEDEC SOT-23 6L package
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23 6L, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: approximately 0.0005 ounces, 0.014 grams
- Marking: K6W

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

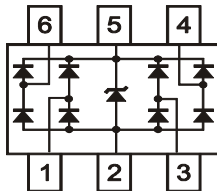
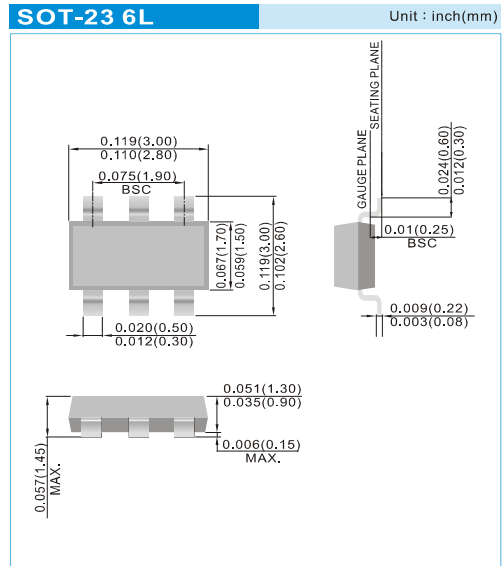


Fig.70(TOP VIEW)



ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20µs waveform)	P _{PP}	50	W
Peak Pulse Current (8/20µs waveform)	I _{PPM}	5	A
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V _{ESD}	± 15 ± 8	kV
Operating Junction Temperature and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C



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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	5	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1mA, PIN 5 to 2	6	-	8	V
Reverse Leakage Current	I _R	V _R =5V, PIN 5 to 2	-	-	3	μA
Clamping Voltage (8/20μs)	V _C	I _{PP} =1A, Any I/O pin to pin 2	-	-	8	V
Clamping Voltage (8/20μs)	V _C	I _{PP} =5A, Any I/O pin to pin 2	-	-	10	V
Off State Junction Capacitance	C _J	0 Vdc, f=1MHz between I/O lines and GND	-	-	1.2	pF
Off State Junction Capacitance	C _J	0 Vdc, f=1MHz between I/O lines	-	-	0.6	pF

RATING AND CHARACTERISTIC CURVES

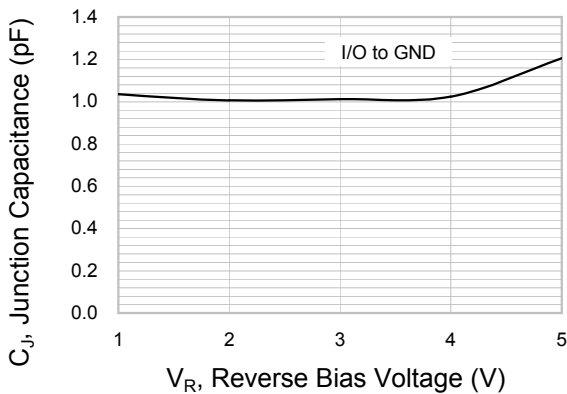


Fig.1 Typical Junction Capacitance

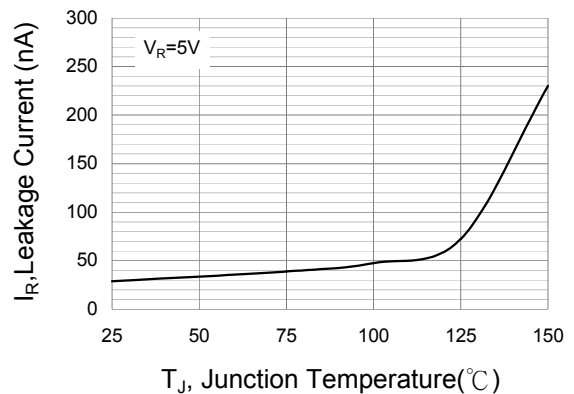


Fig.2 Typical Reverse Characteristics

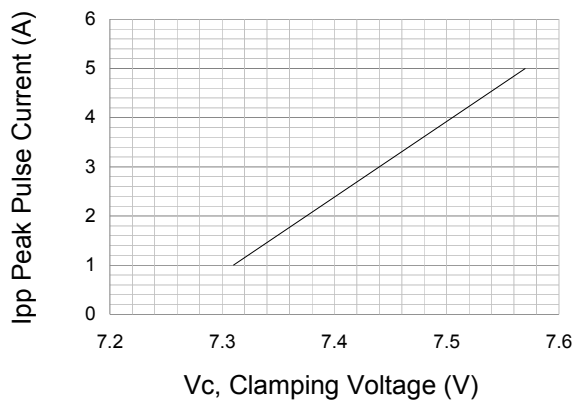


Fig.3 Typical Peak Clamping Voltage(8/20uS)

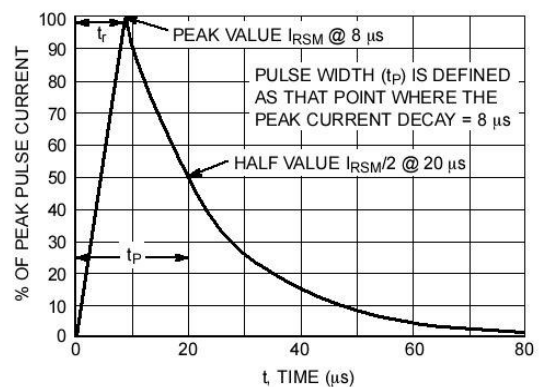
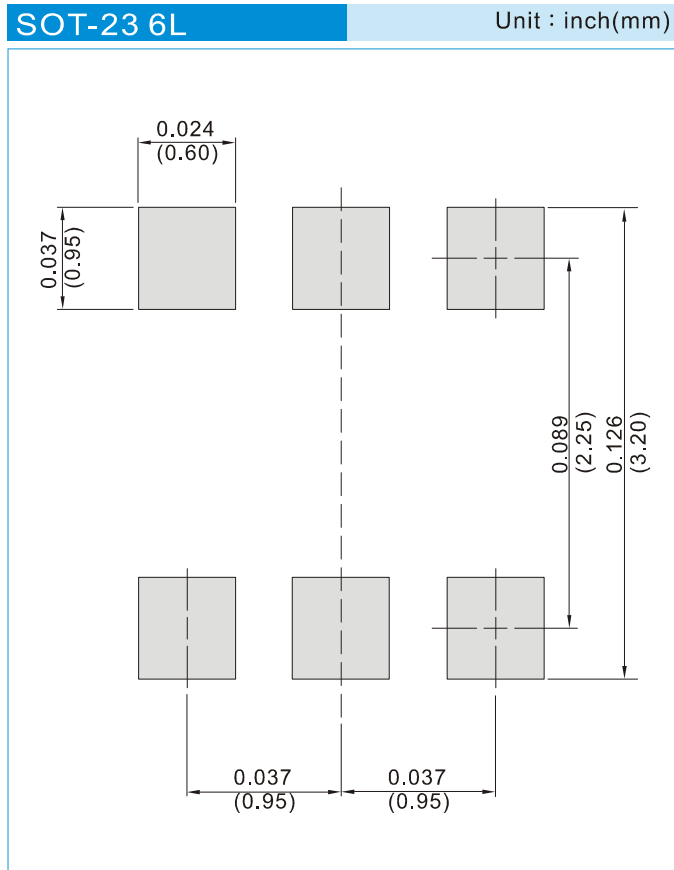


Fig.4 8/20μS Peak Pulse Current Waveform



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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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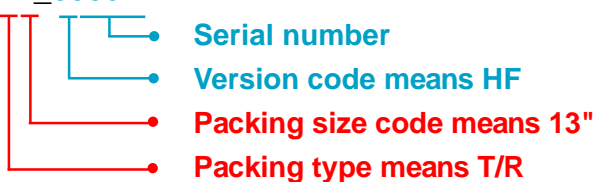
Part No_packing code_Version

PJSRV05W-4W6_R1_00001
 PJSRV05W-4W6_R2_00001
 PJSRV05W-4W6_S1_00001
 PJSRV05W-4W6_S2_00001

For example :

RB500V-40_R2_00001

Part No.



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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