



PJUSBLC6-2W6

LOW CAPACITANCE TVS DIODE ARRAY

The PJUSBLC6-2W6 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

- IEC 61000-4-2 ±15kV air, ±8kV Contact
- IEC 61000-4-5 (Lightning) 4A (8/20µs)
- IEC 61000-4-4 (EFT) (5/50ns) Level-4, 40A for I/O, 80A for Power
- Low leakage current
- Low clamping voltage
- Protect four I/O lines
- Molded JEDEC SOT-23 6L package
- Lead free in comply with EU RoHS 2011/65/EU directives.
- 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 0.0002 ounces, 0.006 grams
- Marking: K6A

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

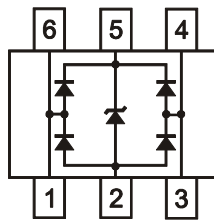
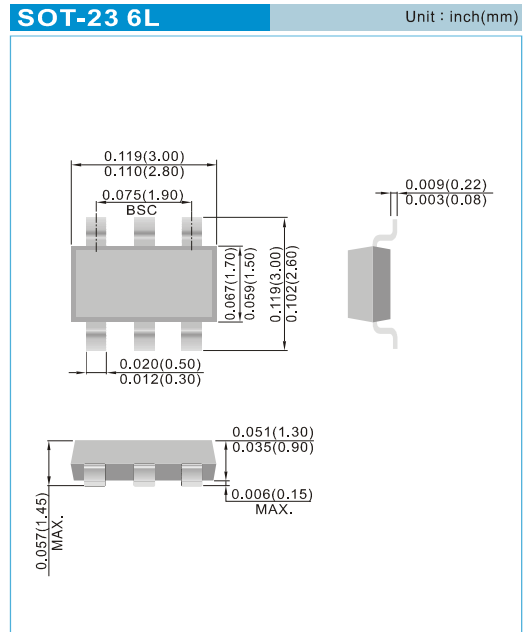


Fig. 72(TOP VIEW)



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

RATING	SYMBOL	VALUE	UNIT
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 ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$, PIN 5 to 2	6	-	8	V
Reverse Leakage Current	I_R	$V_R=5\text{V}$, PIN 5 to 2	-	-	150	nA
Clamping Voltage (8/20 μs)	V_C	$I_{PP}=1\text{A}$, Any I/O pin to pin 2	-	-	8	V
Clamping Voltage (8/20 μs)	V_C	$I_{PP}=5\text{A}$, 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

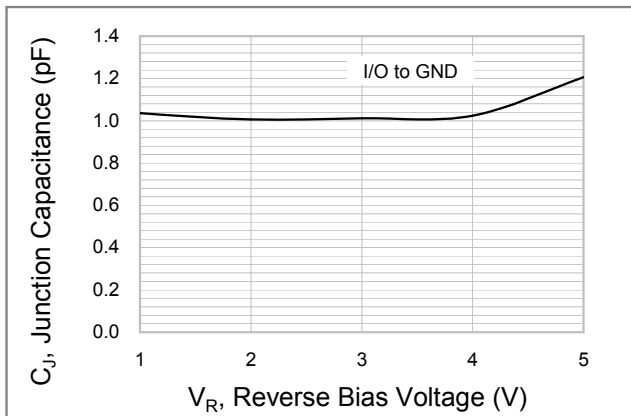


Fig.1 Typical Junction Capacitance

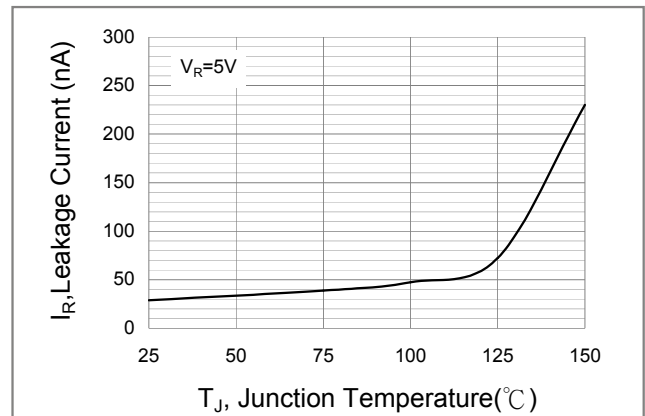


Fig.2 Typical Reverse Characteristics

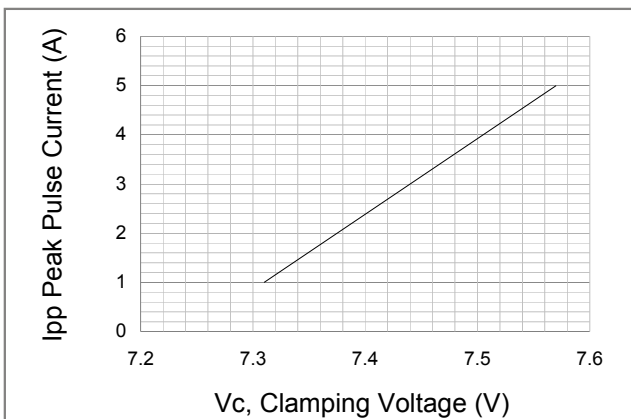


Fig.3 Typical Peak Clamping Voltage(8/20 μs)

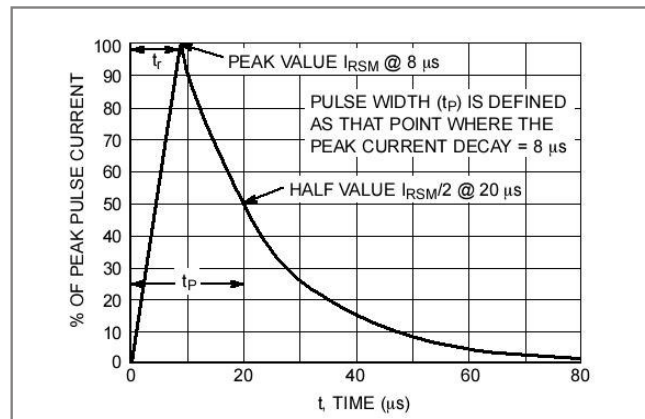
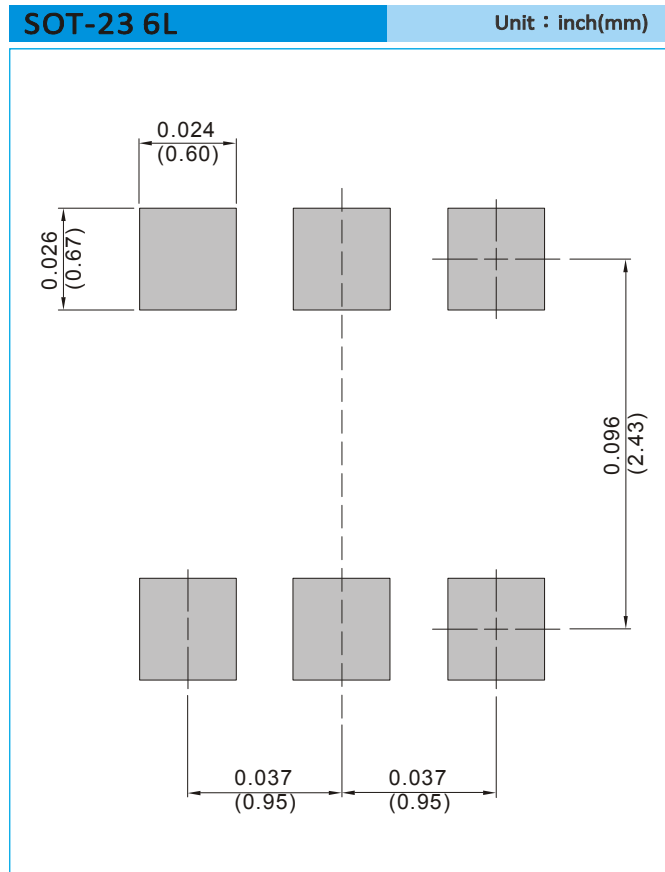


Fig.4 8/20 μs Peak Pulse Current Waveform



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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



PJUSBLC6-2W6

Part No_packing code_Version

PJUSBLC6-2W6_R1_00001

PJUSBLC6-2W6_R2_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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