



# PJUSB05-4

## FEATURES

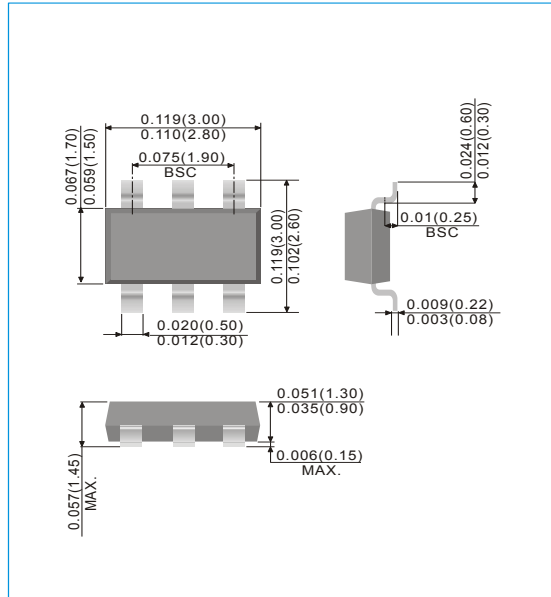
- SOT-23 6L package allows five separate unidirectional configurations
- Low leakage < 1 $\mu$ A@5V
- Breakdown voltage : 6.37V-7.04V@1mA
- Low Capacitance (8.5pF typical)
- ESD Protection Meeting IEC1000-4-2
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

## MECHANICAL DATA

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

## SOT-23 6L

Unit : inch(mm)



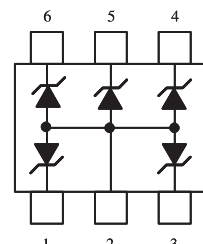
## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Power Dissipation @20 $\mu$ s@T <sub>A</sub> ≤25 °C (Note 1)	P <sub>TOT</sub>	150	W
Steady State Power-1 Diode (Note 2)	P <sub>D</sub>	385	mW
Thermal Resistance , Junction to Ambient Above 25°C, Derate	R $\theta$ <sub>JA</sub>	212 4.7	°C/W mW/°C
ESD Discharge MIL STD 883C-Method 3015-6 IEC1000-4-2, Air Discharge IEC1000-4-2, Contact Discharge	V <sub>PP</sub>	16 15 8	kV
Lead Solder Temperature (10 s duration)	T <sub>L</sub>	260	°C
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to 150	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

1. Non-repetitive current per Figure 1. Derate per Figure 2.

2. Only 1 diode under power. For all 5 diodes under power, P<sub>D</sub> will be 20%. Mounted on FR-4 board with min pad.





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## ELECTRICAL CHARACTERISTICS

Part Number	Breakdown Voltage $V_{BR}$ @ 1mA(Volts)			Leakage Current $I_r$ @ $V_{RWM} = 5V$	Capacitance@0V Bias	Max $V_F$ @ $I_F=10mA$
	Min.	Nom.	Max.			
	V	V	V			
PJUSB05-4	6.37	6.7	7.04	1.0	8.5	0.95

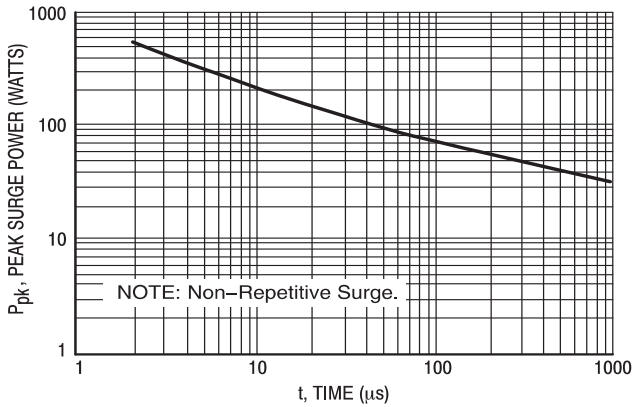


Figure 1. Pulse Width

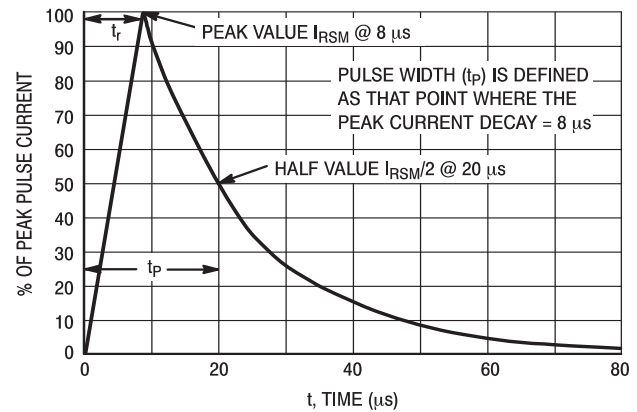


Figure 2. 8 x 20  $\mu s$  Pulse Waveform

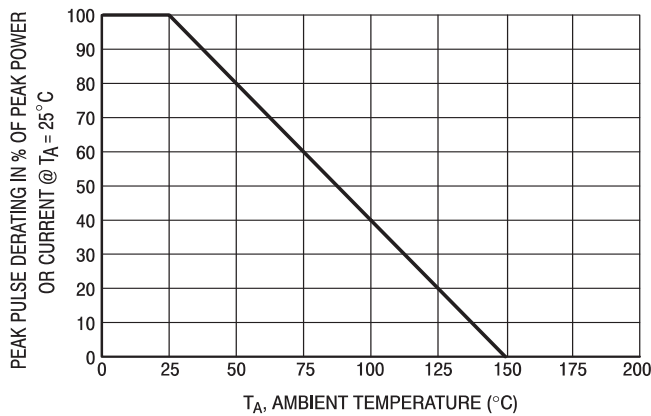


Figure 3. Pulse Derating Curve

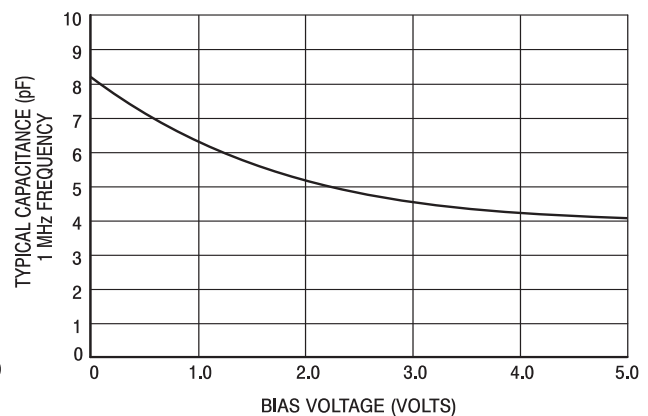


Figure 4. Capacitance

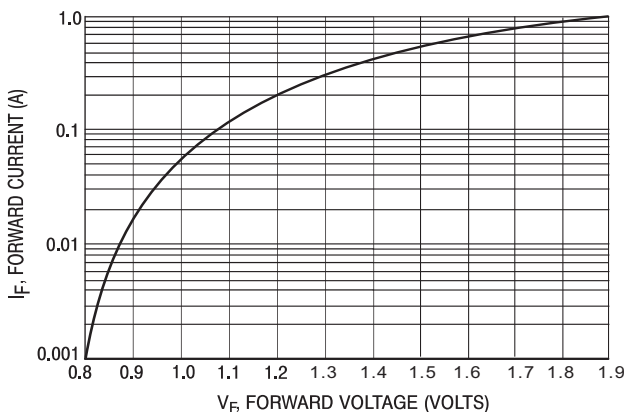


Figure 5. Forward Voltage

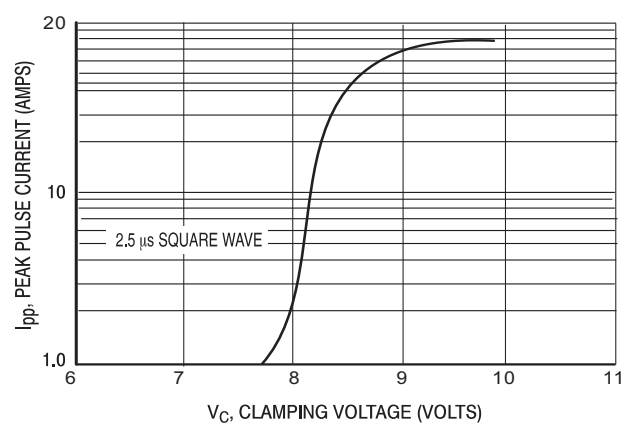
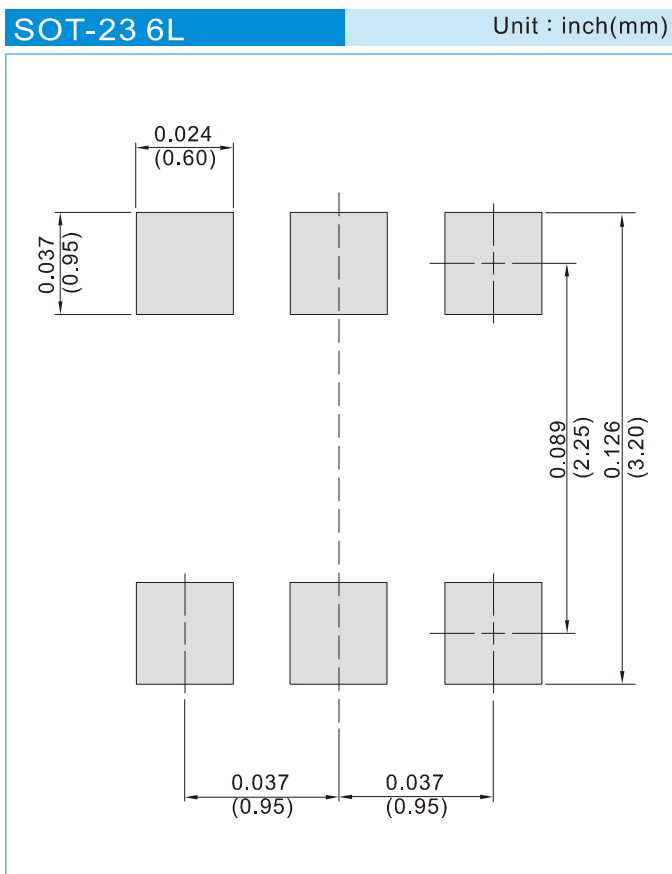


Figure 6. Clamping Voltage versus Peak Pulse Current (Reverse Direction)



**PJUSB05-4**

**MOUNTING PAD LAYOUT**



**ORDER INFORMATION**

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



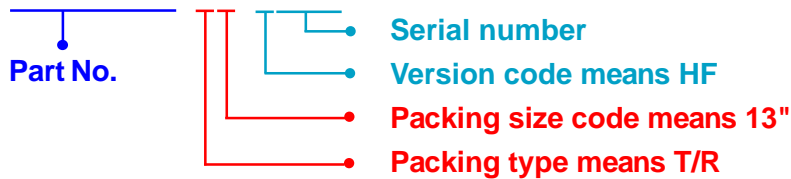
# PJUSB05-4

## Part No\_packing code\_Version

- PJUSB05-4\_R1\_00001
- PJUSB05-4\_R2\_00001
- PJUSB05-4\_S1\_00001
- PJUSB05-4\_S2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> 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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