



PJMBZ5V6 SERIES

DUAL TVS FOR ESD / TRANSIENT PROTECTION

VOLTAGE 5.6 to 6.8 Volts **POWER** 150 Watts

SOT-23 Unit : inch(mm)

FEATURES

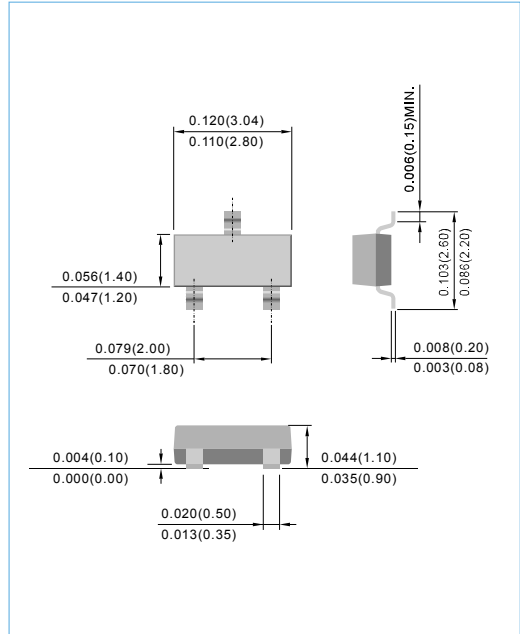
- Working Peak Reverse Voltage Range - 5.6 to 6.8V
- Maximum Leakage Current of 5uA
- IEC61000-4-2 Compliance 15kV Air, 8kV Contact Discharge
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

APPLICATIONS

- Data Transmission Line Ports
- Computer Monitor Interface Port Protection
- Portable Consumer Electronics
- Instrumentation Equipment

MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Apporx. Weight: 0.0003 ounces, 0.0084 grams



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	Symbol	Value	Units
Peak Pulse Power 8x20 usec Waveform	P _{PP}	150	W
Peak Pulse Power 10x1000 usec Waveform		30	
ESD per IEC61000-4-2 (Air)	V _{PP}	+/-15	kV
ESD per IEC61000-4-2 (Contact)		+/-8	kV
Lead Soldering Temperature (max 10 secs)	T _L	260	°C
Operating Junction Temperature and Storage Temperature Range	T _J ,T _{STG}	-55 to +150	°C

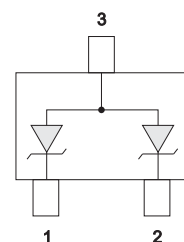


Fig.25



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

PJMBZ5V6 Marking UA						
PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	3.3	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1.0 mA I _{BR} =20 mA	5.13 5.32	5.4 5.6	5.67 5.88	V
Reverse Leakage Current	I _R	V _R =3.3V	-	-	5.0	μA
Clamping Voltage (8x20 usec)	V _{CL}	I _{PP} =20 Amps	-	-	9.0	V
Clamping Voltage (10x1000 usec)	V _{CL}	I _{PP} =5.0 Amps	-	-	7.0	V
Off State Junction Capacitance	C _J	0 Vdc Bias f=1MHz Between I/O pins and pin 3	-	-	90	pF

PJMBZ6V2 Marking UB						
PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	4.3	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1.0 mA I _{BR} =20 mA	5.89	6.2	6.51	V
Reverse Leakage Current	I _R	V _R =4.3V	-	-	0.5	μA
Clamping Voltage (8x20 usec)	V _{CL}	I _{PP} =20 Amps	-	-	9.5	V
Clamping Voltage (10x1000 usec)	V _{CL}	I _{PP} =4.0 Amps	-	-	7.5	V
Off State Junction Capacitance	C _J	0 Vdc Bias f=1MHz Between I/O pins and pin 3	-	-	70	pF

PJMBZ6V8 Marking UC						
PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	5.0	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1.0 mA I _{BR} =20 mA	6.46	6.8	7.14	V
Reverse Leakage Current	I _R	V _R =5.0V	-	-	0.5	μA
Clamping Voltage (8x20 usec)	V _{CL}	I _{PP} =20 Amps	-	-	10	V
Clamping Voltage (10x1000 usec)	V _{CL}	I _{PP} =4.0 Amps	-	-	8.5	V
Off State Junction Capacitance	C _J	0 Vdc Bias f=1MHz Between I/O pins and pin 3	-	-	100	pF



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RATING AND CHARACTERISTIC CURVES

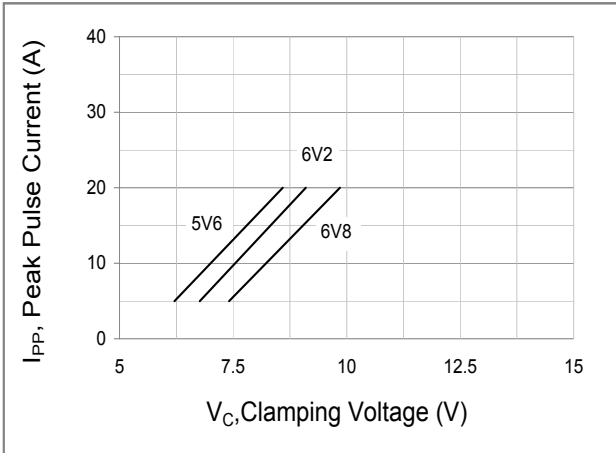


Fig.1 8/20µs Peak Pulse Current Waveform

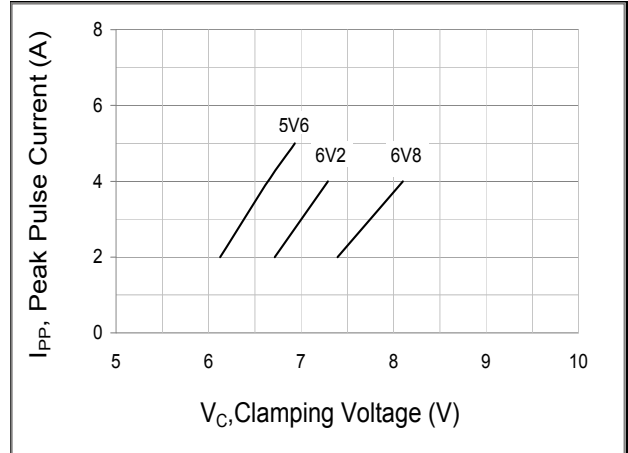


Fig.2 10/1000µs Peak Pulse Current Waveform

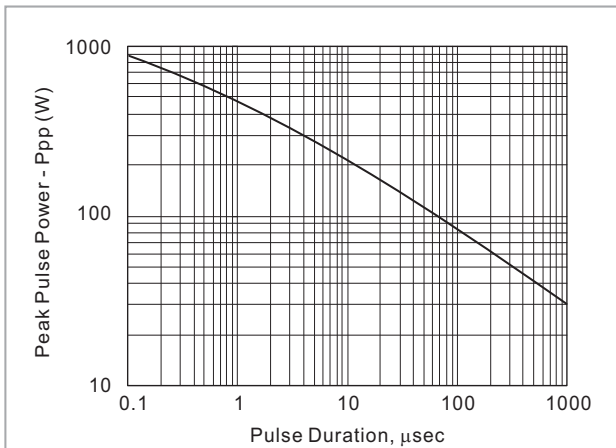


Fig.3 Non-Repetitive Peak Pulse Power vs Pulse Time

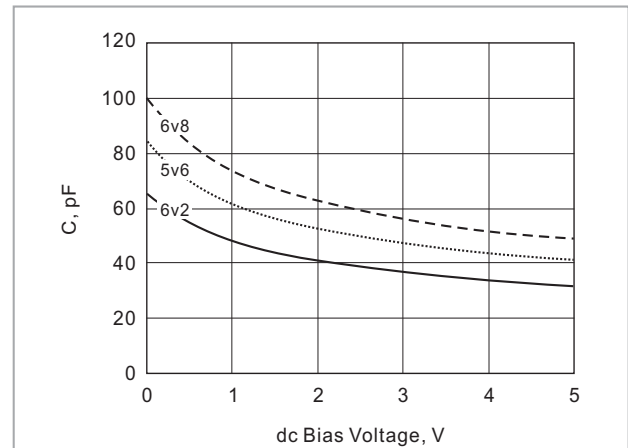


Fig.4 Capacitance vs. Biasing Voltage @1MHz

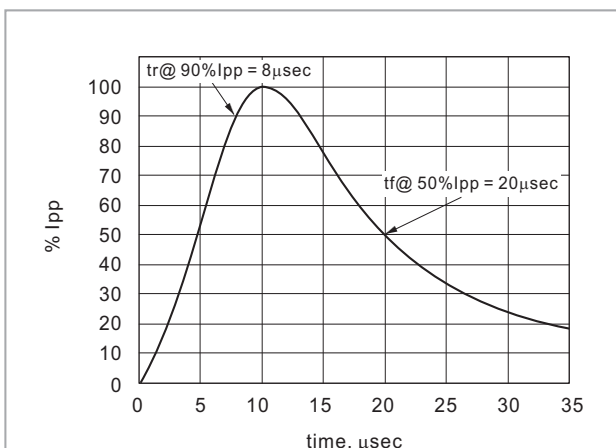


Fig.5 8x20µsec Surge Waveform

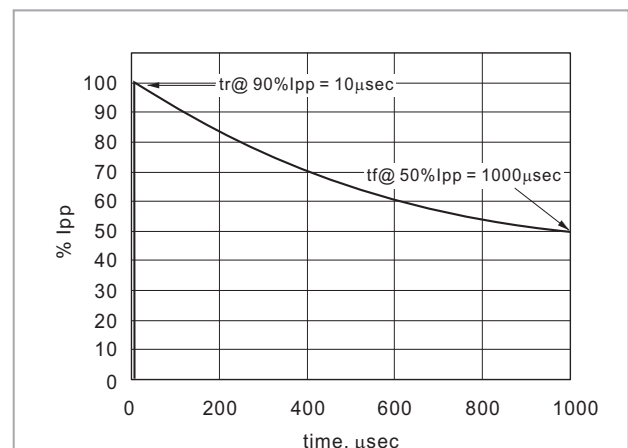
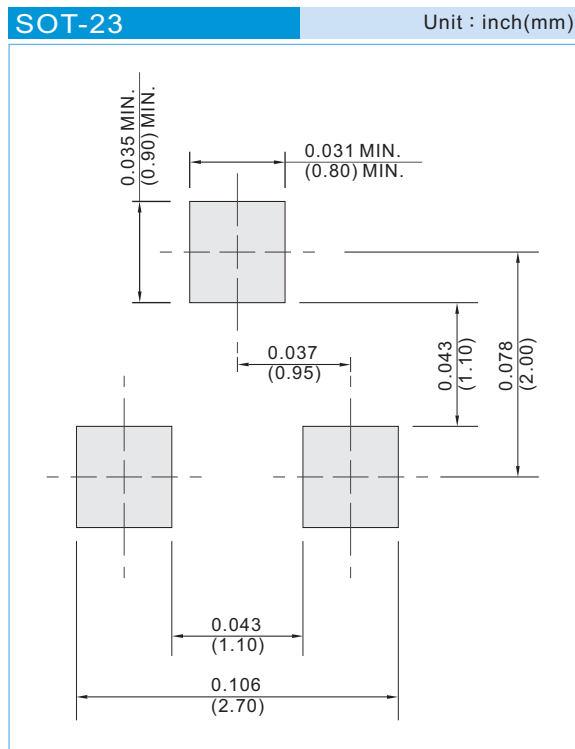


Fig.6 10x1000µsec Waveform



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

PJMBZ5V6_R1_00001

PJMBZ5V6_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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