



PJMBZ15V / PJMBZ27V

DUAL TVS ZENER FOR ESD / TRANSIENT PROTECTION

This Dual Zener ESD/Transient Protector with a Common Cathode, Configuration has been designed to protect Sensitive Equipment against,ESD and prevent Latch-Up events.The combination of a dual device protects up to two data lines in a single package giving the advantage of board space savings where this is a premium.

VOLTAGE 12 / 22 Volts **POWER** 150 Watts

SOT-23 Unit: inch (mm)

FEATURES

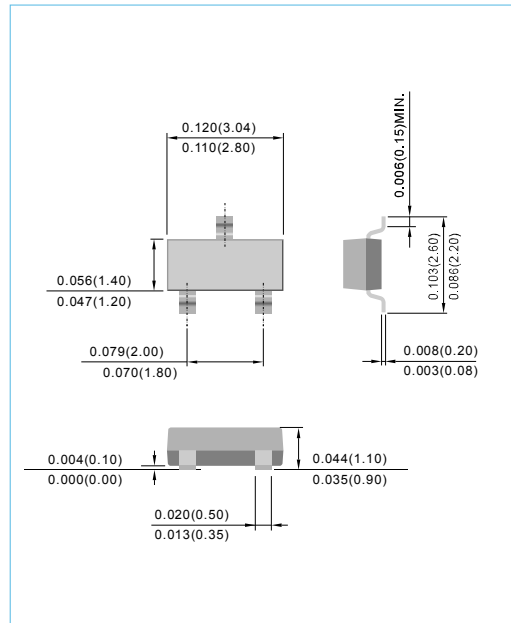
- Working Peak Reverse Voltage of 12V and 22V
- Maximum Leakage Current of 100nA and 50nA @ V_{RWM}
- IEC61000-4-2 Compliance 15kV Air, 8kV Contact Discharge
- Industry Standard SOT-23 Package
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

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 : 0.0084 gram



MAXIMUM RATINGS

PARAMETER	Symbol	Value	Units
Peak Pulse Power 8x20 μ sec Waveform	P _{PP}	150	W
Peak Pulse Power 10x1000 μ sec		40	
ESD IEC61000-4-2 (Air)	V _{ESD}	\pm 30	kV
ESD IEC61000-4-2 (Contact)		\pm 30	
Operating Temperature Range	T _J	-55 to +150	$^{\circ}$ C
Storage Temperature Range	T _{STG}	-55 to +150	$^{\circ}$ C
Lead Soldering Temperature (max 10 secs)	T _L	260	$^{\circ}$ C

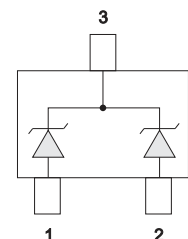


Fig.38



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ELECTRICAL CHARACTERISTICS Tj = 25°C

PJMBZ15V Marking UL						
PARAMETER	Symbol	Condition	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	12	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1mA	14.3	-	15.8	V
Reverse Leakage Current	I _R	V _{RWM} =12V	-	-	100	nA
Clamping Voltage (8x20 μsec)	V _{CL}	I _{PP} =6Amps	-	-	24	V
Clamping Voltage (10x1000 μsec)	V _{CL}	I _{PP} =1.9Amps	-	-	21.2	V
Off State Junction Capacitance	C _J	0 Vdc Bias f=1MHz Between I/O pins and pin 3	-	-	80	pF
PJMBZ27V Marking US						
PARAMETER	Symbol	Condition	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V _{RWM}		-	-	22	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1mA	25.65	-	28.35	V
Reverse Leakage Current	I _R	V _{RWM} =22V	-	-	50	nA
Clamping Voltage (8x20 μsec)	V _{CL}	I _{PP} =4Amps	-	-	36	V
Clamping Voltage (10x1000 μsec)	V _{CL}	I _{PP} =1Amps	-	-	38	V
Off State Junction Capacitance	C _J	0 Vdc Bias f=1MHz Between I/O pins and pin 3	-	-	50	pF



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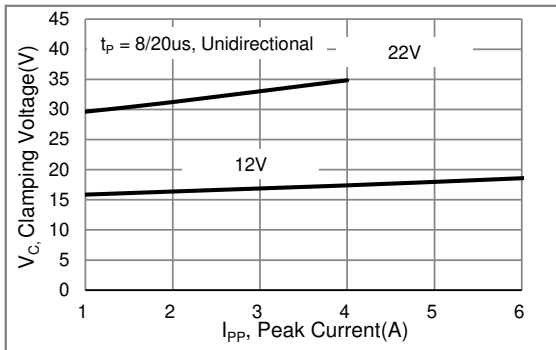


Fig.1 Typical Peak Clamping Voltage

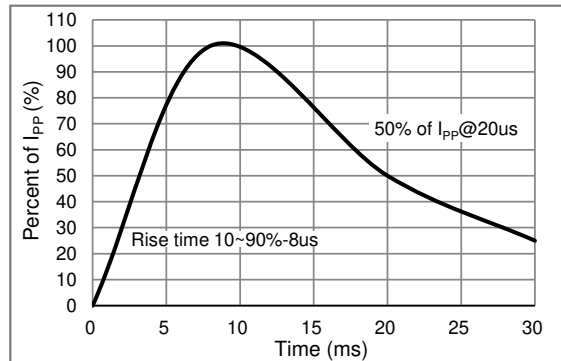


Fig.2 Pulse Waveform

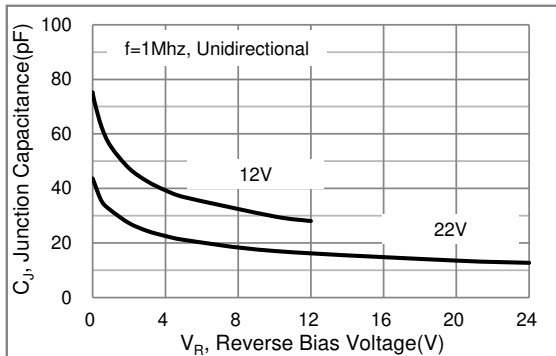


Fig.3 Typical Junction Capacitance

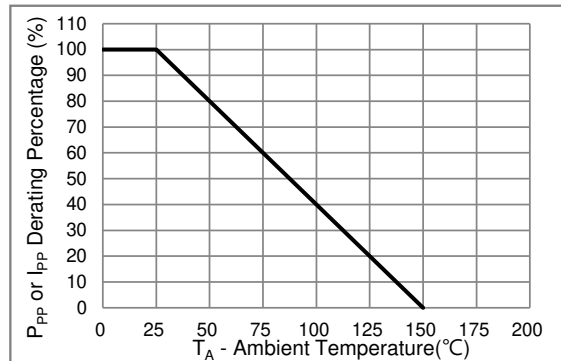


Fig.4 Derating Curve

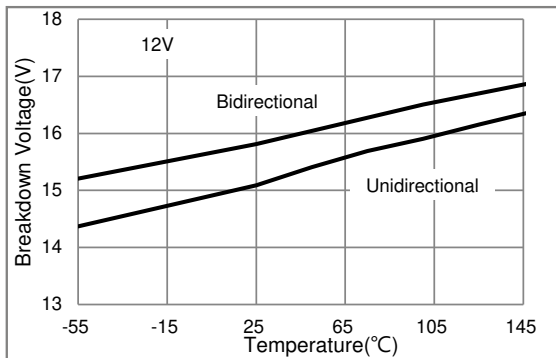


Fig.5 Typical V_{BR} versus Temperature

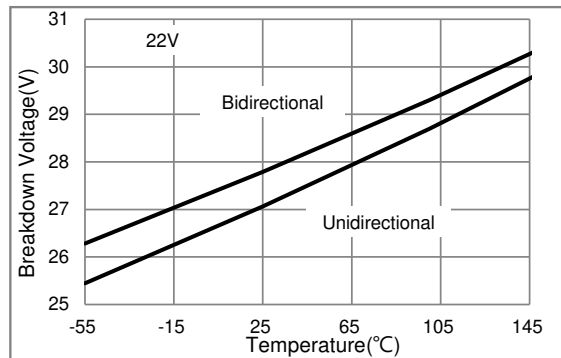


Fig.6 Typical V_{BR} versus Temperature

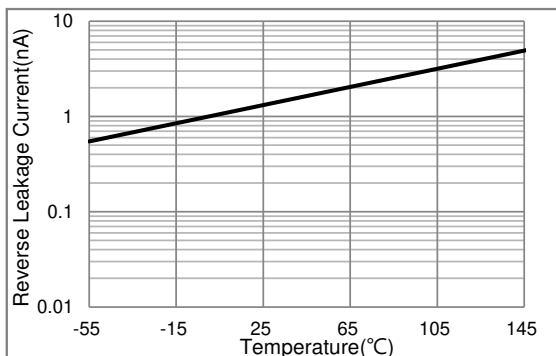


Fig.7 Typical I_R versus Temperature

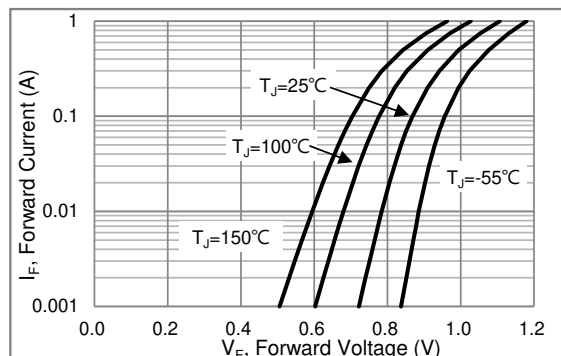
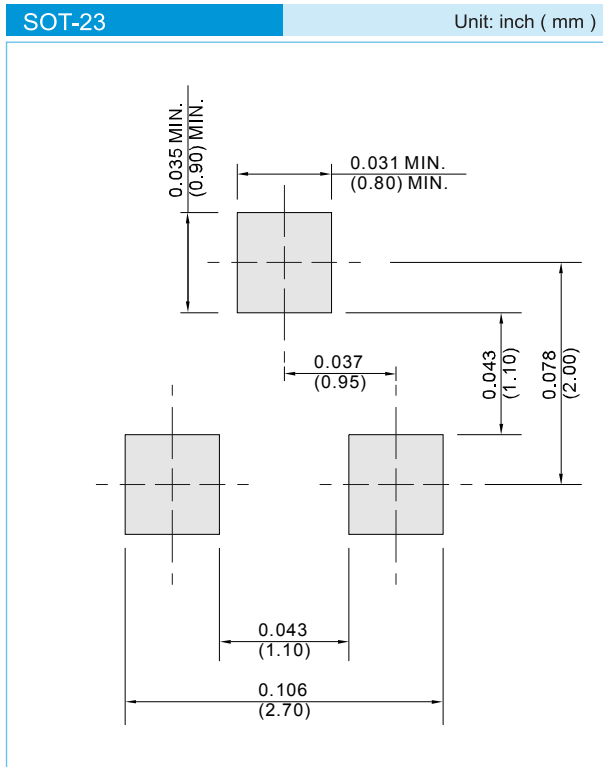


Fig.8 Typical Forward Characteristics



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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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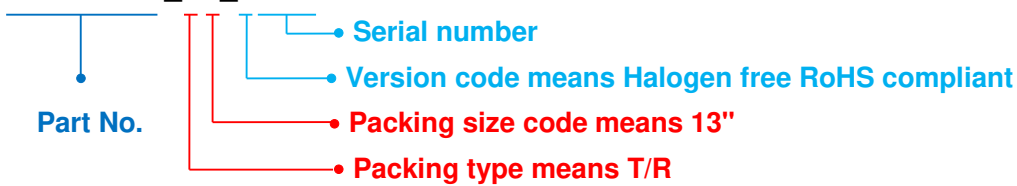
Part No._packing code_Version

PJMBZ15V_R1_00001

PJMBZ27V_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code X		Serial number XXXX
Packing type	1 st Code	Packing size code	2 nd Code	HSF Level	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS compliant	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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