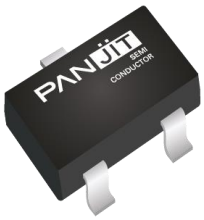
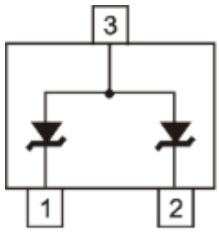
PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

ESD Protection

Voltage **5.6~33 V**

SOT-23





Features

- ISO10605(C=330pF, R=330Ω) :±30kV Air, ±30kV Contact
- HBM ≧ ±8KV & CDM ≧ ±2KV
- 24 or 40W Peak Power Rating @1ms(Unidirectional)
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SOT-23 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0084 grams

Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power 10/1000us Waveform (5.6V ~ 9.1V)	P_{PP}	24	W
Peak Pulse Power 10/1000us Waveform (12V ~ 33V)	P_{PP}	40	W
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
Typical Thermal Resistance(Note 1)	$R_{\theta JA}$	350	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PJMBZ5V6A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	3	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 20mA, Any I/O pins to GND	5.32	5.6	5.88	V
Reverse Leakage Current	I_R	V_R = 3V, Any I/O pins to GND	-	-	5	uA
Clamping Voltage	V_{CL}	I_{PP} = 3A, t_P = 10/1000us, Any I/O pins to GND	-	-	8	V

PJMBZ6V2A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	3	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	5.89	6.2	6.51	V
Reverse Leakage Current	I_R	V_R = 3V, Any I/O pins to GND	-	-	0.5	uA
Clamping Voltage	V_{CL}	I_{PP} = 2.76A, t_P = 10/1000us, Any I/O pins to GND	-	-	8.7	V

PJMBZ6V8A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	4.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	6.46	6.8	7.14	V
Reverse Leakage Current	I_R	V_R = 4.5V, Any I/O pins to GND	-	-	0.5	uA
Clamping Voltage	V_{CL}	I_{PP} = 2.5A, t_P = 10/1000us, Any I/O pins to GND	-	-	9.6	V

PJMBZ9V1A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	6	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	8.65	9.1	9.56	V
Reverse Leakage Current	I_R	V_R = 6V, Any I/O pins to GND	-	-	0.3	uA
Clamping Voltage	V_{CL}	I_{PP} = 1.7A, t_P = 10/1000us, Any I/O pins to GND	-	-	14	V

PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

PJMBZ12A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	8.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	11.4	12	12.6	V
Reverse Leakage Current	I_R	V_R = 8.5V, Any I/O pins to GND	-	-	0.2	uA
Clamping Voltage	V_{CL}	I_{PP} = 2.35A, t_P = 10/1000us, Any I/O pins to GND	-	-	17	V

PJMBZ15A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	14.25	15	15.75	V
Reverse Leakage Current	I_R	V_R = 12V, Any I/O pins to GND	-	-	0.05	uA
Clamping Voltage	V_{CL}	I_{PP} = 1.9A, t_P = 10/1000us, Any I/O pins to GND	-	-	21	V

PJMBZ18A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	14.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	17.1	18	18.9	V
Reverse Leakage Current	I_R	V_R = 14.5V, Any I/O pins to GND	-	-	0.05	uA
Clamping Voltage	V_{CL}	I_{PP} = 1.6A, t_P = 10/1000us, Any I/O pins to GND	-	-	25	V

PJMBZ20A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	17	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	19	20	21	V
Reverse Leakage Current	I_R	V_R = 17V, Any I/O pins to GND	-	-	0.05	uA
Clamping Voltage	V_{CL}	I_{PP} = 1.4A, t_P = 10/1000us, Any I/O pins to GND	-	-	28	V

PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

PJMBZ27A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	22	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	25.65	27	28.35	V
Reverse Leakage Current	I_R	V_R = 22V, Any I/O pins to GND	-	-	0.05	uA
Clamping Voltage	V_{CL}	I_{PP} = 1A, t_P = 10/1000us, Any I/O pins to GND	-	-	40	V

PJMBZ33A-AU						
PARAMETER	**SYMBOL**	**TEST CONDITION**	**MIN.**	**TYP.**	**MAX.**	**UNITS**
Reverse Stand-Off Voltage(Note 2)	V_{RWM}	-	-	-	26	V
Reverse Breakdown Voltage	V_{BR}	I_{BT} = 1mA, Any I/O pins to GND	31.35	33	34.65	V
Reverse Leakage Current	I_R	V_R = 26V, Any I/O pins to GND	-	-	0.05	uA
Clamping Voltage	V_{CL}	I_{PP} = 0.87A, t_P = 10/1000us, Any I/O pins to GND	-	-	46	V

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level.

PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

TYPICAL CHARACTERISTIC CURVES

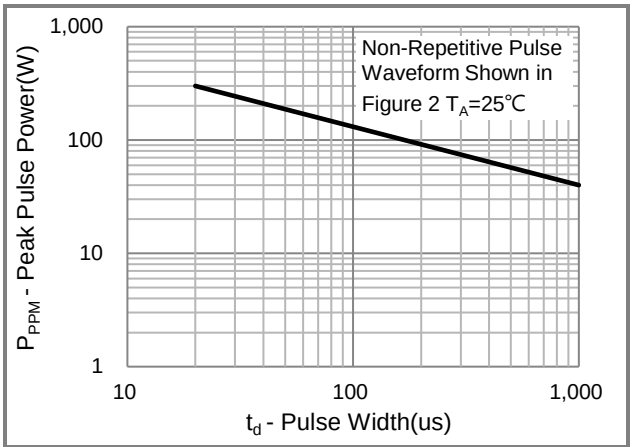


Fig.1 Pulse Power Rating Curve

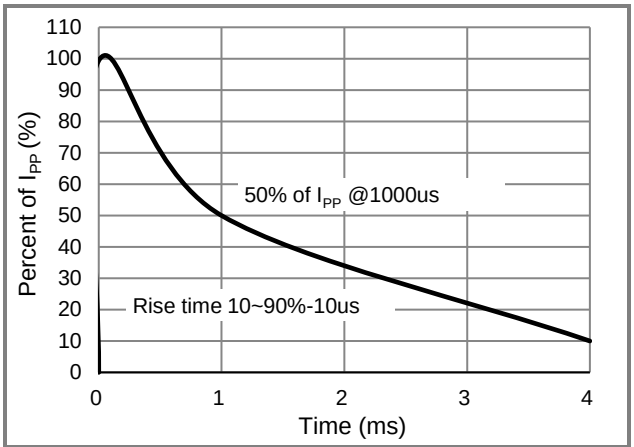


Fig.2 Pulse Waveform

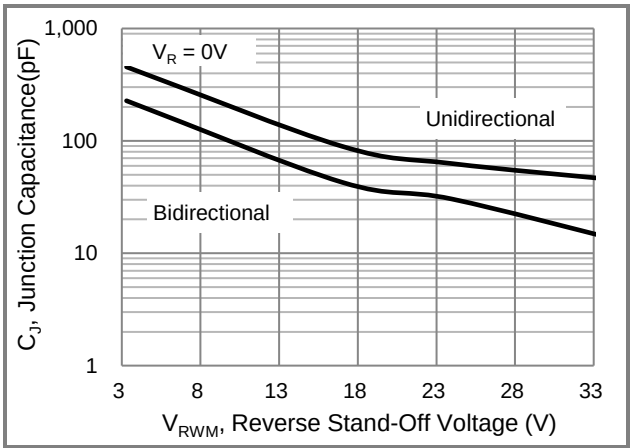


Fig.3 Typical Junction Capacitance

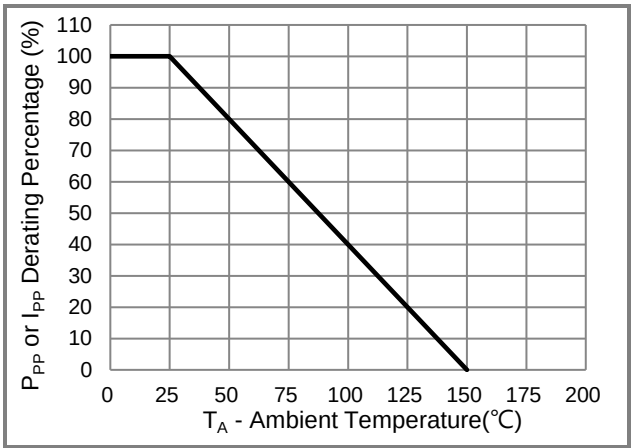


Fig.4 Derating Curve

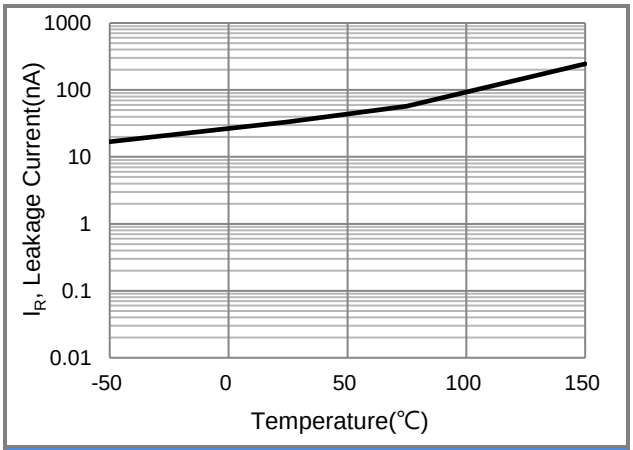


Fig.5 Typical Reverse Characteristics

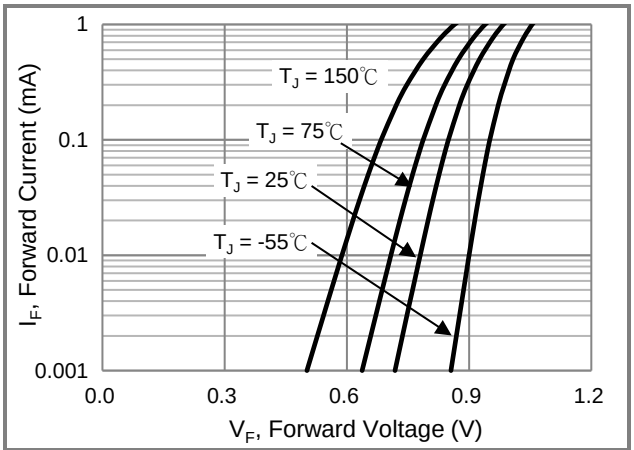


Fig.6 Typical Forward Characteristics

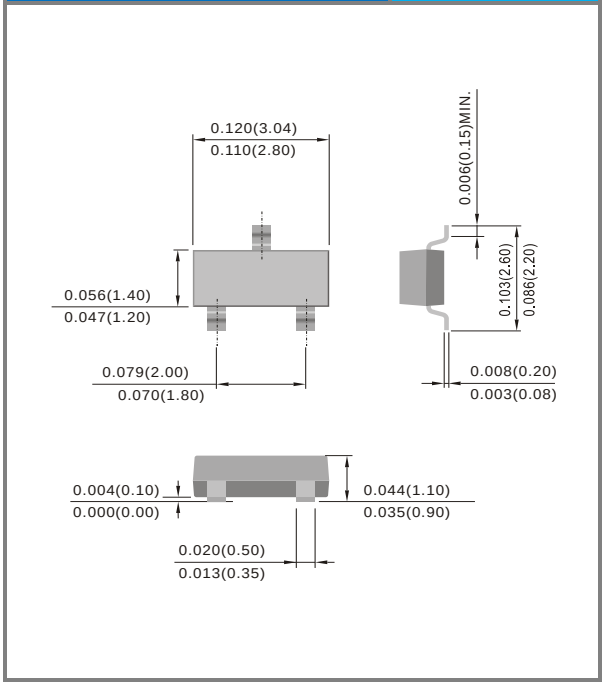
PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

Product and Packing Information

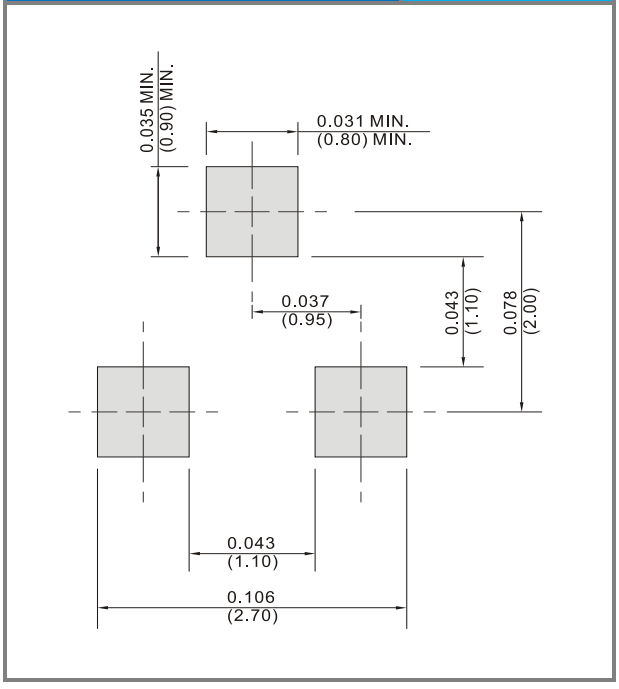
Part No.	Package Type	Packing Type	Marking
PJMBZ5V6A-AU	SOT-23	3K pcs / 7” reel	Z2C
PJMBZ6V2A-AU	SOT-23	3K pcs / 7” reel	Z2D
PJMBZ6V8A-AU	SOT-23	3K pcs / 7” reel	Z2E
PJMBZ9V1A-AU	SOT-23	3K pcs / 7” reel	Z2F
PJMBZ12A-AU	SOT-23	3K pcs / 7” reel	Z2G
PJMBZ15A-AU	SOT-23	3K pcs / 7” reel	Z2H
PJMBZ18A-AU	SOT-23	3K pcs / 7” reel	Z2J
PJMBZ20A-AU	SOT-23	3K pcs / 7” reel	Z2A
PJMBZ27A-AU	SOT-23	3K pcs / 7” reel	Z2K
PJMBZ33A-AU	SOT-23	3K pcs / 7” reel	Z2L

Packaging Information & Mounting Pad Layout

SOT-23 Dimension — Unit: inch(mm)



SOT-23 Pad Layout — Unit: inch(mm)



PJMBZ5V6A-AU ~ PJMBZ33A-AU Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Panjit ***manufacturer:***

Other Similar products are found below :

1.5KE150A_AY_10001 1.5KE200A_AY_10001 1.5KE200CA_AY_10001 1.5KE33A_AY_10001 1.5KE75A_AY_10001 1.5SMC27CA-AU_R1_000A1 1.5SMC36A_R1_00001 1.5SMC36CA_R1_00001 1.5SMC39CA_R1_00001 1.5SMC82CA_R1_00001 1.5SMCJ12A_R1_00001 1.5SMCJ13A_R1_00001 1.5SMCJ150CA_R1_00001 1.5SMCJ15AS_R1_00001 1.5SMCJ20CA_R1_00001 1.5SMCJ22CA-AU_R1_000A1 1.5SMCJ24CA_R1_00001 1.5SMCJ28CA_R1_00001 1.5SMCJ30CA_R1_00001 1.5SMCJ33A_R1_00001 1.5SMCJ33A-AU_R1_000A1 1.5SMCJ33CA_R1_00001 1.5SMCJ36A_R1_00001 1.5SMCJ36A_R1_10001 1.5SMCJ36CA_R1_00001 1.5SMCJ40A_R1_00001 1.5SMCJ48A_R1_00001 1.5SMCJ51CAS 1.5SMCJ54A_R1_00001 1.5SMCJ75CA_R1_00001 1N4007_AY_10001 1N4007G_AY_00001 1N4007G_AY_00101 1N4007G_AY_10001 1N4148-35_AX_10001 1N4148-35_AY_10001 1N4148W_R1_00001 1N4148W_R1_000A7 1N4148W_R1_00101 1N4148W_R2_00001 1N4148W-AU_R1_000A1 1N4148W-AU_R2_000A1 1N4148WS_R1_00001 1N4148WS_R1_00101 1N4148WS-AU_R1_00001 1N4148WS-AU_R1_000A1 1N4148WS-R1_000A4 1N4448W_R1_00001 1N4448WS_R1_00001 1N4734A-G_AY_10001