

PJMBZ15C-AU / PJMBZ27C-AU Series

ESD Protection

Voltage

15 / 27 V

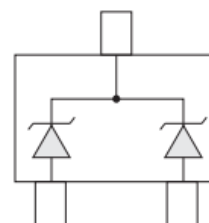
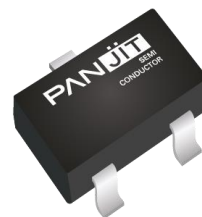
Features

- ISO10605(C=330pF, R=330Ω) : ±30kV Air, ±30kV Contact
- HBM $\geq \pm 8\text{KV}$ & CDM $\geq \pm 2\text{KV}$
- 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

SOT-23



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

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power 10/1000us Waveform	P _{PP}	40	W
ESD IEC61000-4-2(Air)	V _{ESD}	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance ^(Note 1)	R _{θJA}	350	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PJMBZ15C-AU						
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 2)	V_{RWM}	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	$I_{BT} = 1\text{mA}$, Any I/O pins to GND	14.25	15	15.75	V
Reverse Leakage Current	I_R	$V_R = 12\text{V}$, Any I/O pins to GND	-	-	0.05	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1.9\text{A}$, $t_P = 10/1000\mu\text{s}$, Any I/O pins to GND	-	-	21	V

PJMBZ27C-AU						
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 2)	V_{RWM}	-	-	-	22	V
Reverse Breakdown Voltage	V_{BR}	$I_{BT} = 1\text{mA}$, Any I/O pins to GND	25.65	27	28.35	V
Reverse Leakage Current	I_R	$V_R = 22\text{V}$, Any I/O pins to GND	-	-	0.05	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{A}$, $t_P = 10/1000\mu\text{s}$, Any I/O pins to GND	-	-	40	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.

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TYPICAL CHARACTERISTIC CURVES

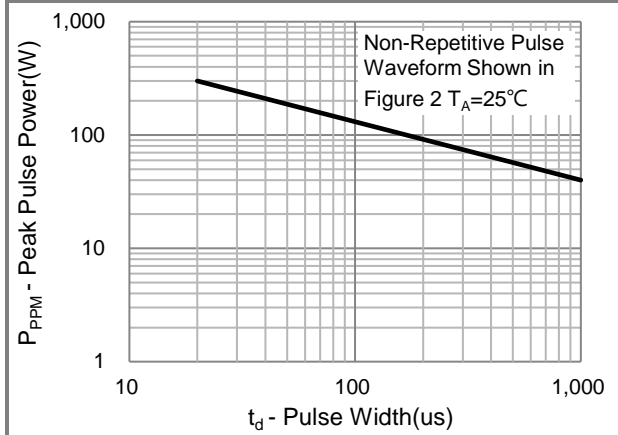


Fig.1 Pulse Power Rating Curve

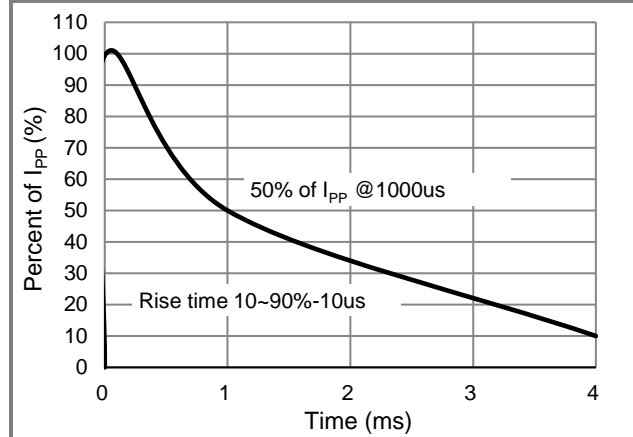


Fig.2 Pulse Waveform

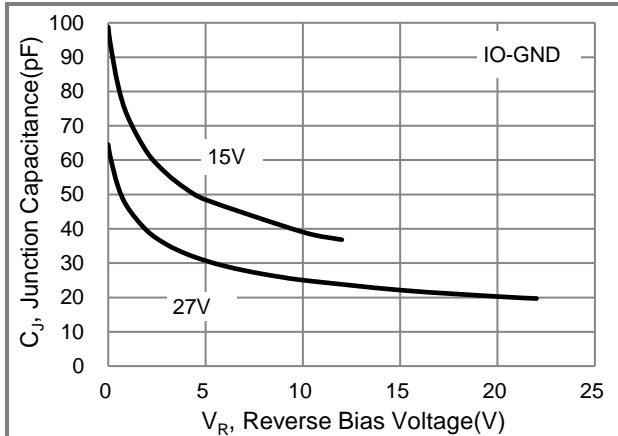


Fig.3 Typical Junction Capacitance

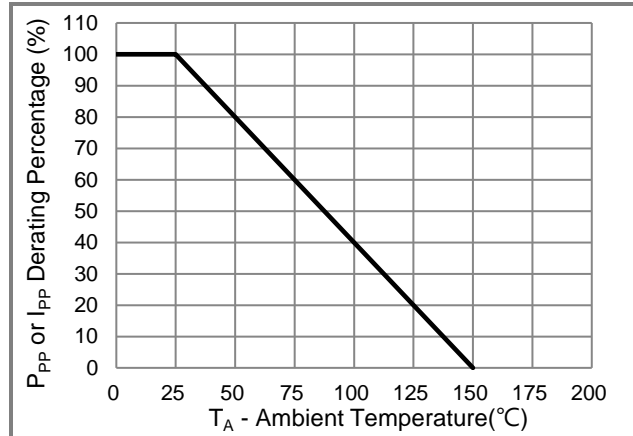


Fig.4 Derating Curve

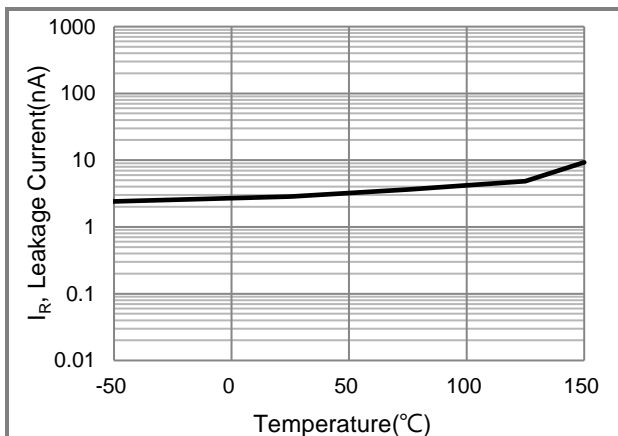


Fig.5 Typical Reverse Characteristics

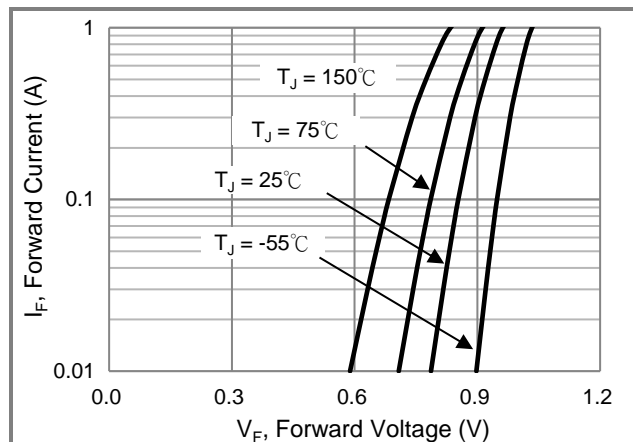


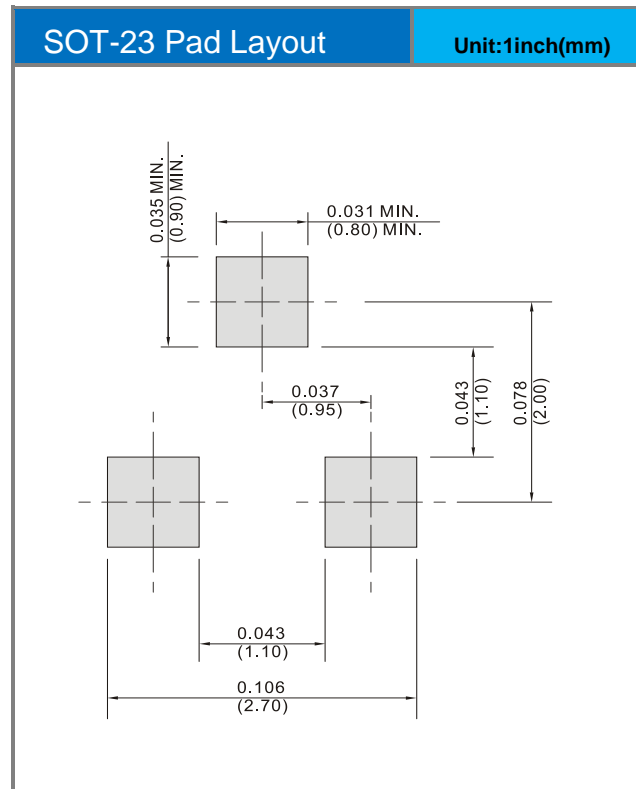
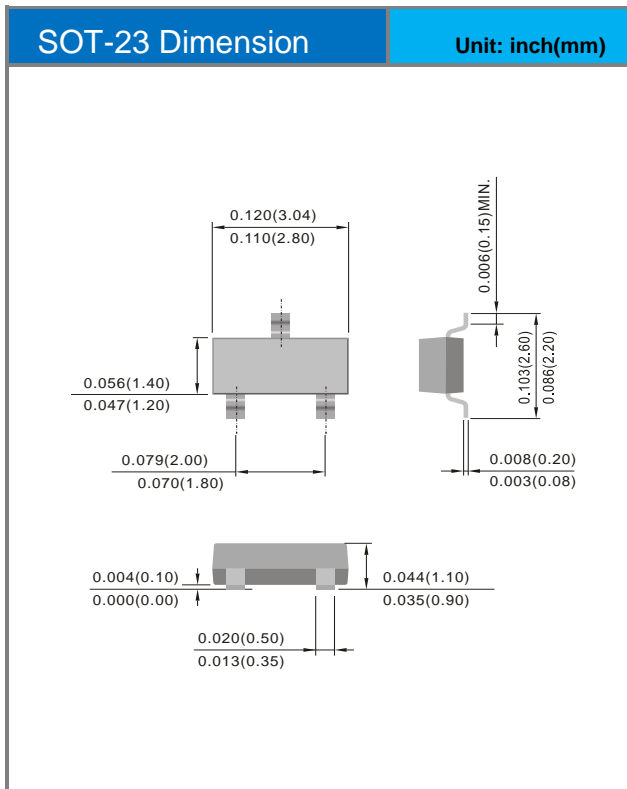
Fig.6 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PJMBZ15C-AU	SOT-23	3K pcs / 7" reel	AAB
PJMBZ27C-AU	SOT-23	3K pcs / 7" reel	AAC

Packaging Information & Mounting Pad Layout



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