

# PEC4205C2A-AU

## ESD Protection

**Voltage**

**5 V**

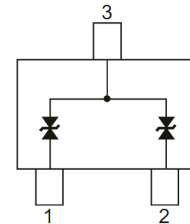
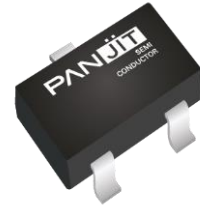
## Features

- ISO10605(C=330pF, R=330Ω) : ±30kV Air, ±30kV Contact
- HBM ≥ ±8KV & CDM ≥ ±2KV
- IEC61000-4-5(Lightning) : 30A(8/20uS)
- 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<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V <sub>ESD</sub>	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance <sup>(Note 1)</sup>	R <sub>θJA</sub>	350	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage <sup>(Note 2)</sup>	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR} = 1\text{ mA}$	6	-	9	V
Reverse Leakage Current	$I_R$	$V_R = 5\text{ V}$	-	-	500	nA
Clamping Voltage	$V_{CL}$	$I_{PP} = 1\text{ A}, t_P = 8/20\text{ us}$	-	6.7	10	V
		$I_{PP} = 10\text{ A}, t_P = 8/20\text{ us}$	-	8.3	14.5	V
		$I_{PP} = 30\text{ A}, t_P = 8/20\text{ us}$	-	11	18	V
Off State Junction Capacitance	$C_J$	0Vdc Bias $f = 1\text{ MHz}$	-	-	200	pF

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.
3. Not applicable to parts with  $V_{RWM}$  lower than battery voltage.

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## TYPICAL CHARACTERISTIC CURVES

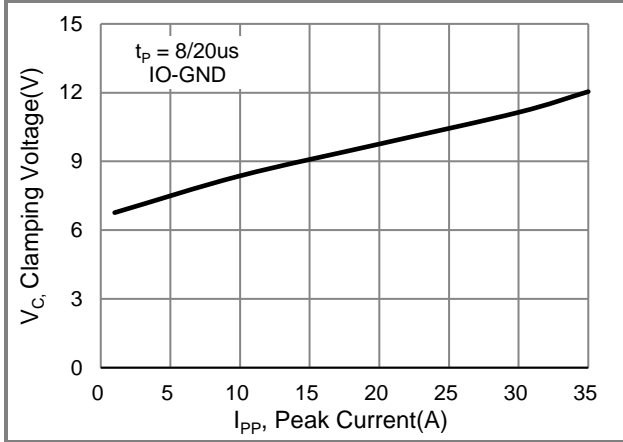


Fig.1 Typical Peak Clamping Voltage

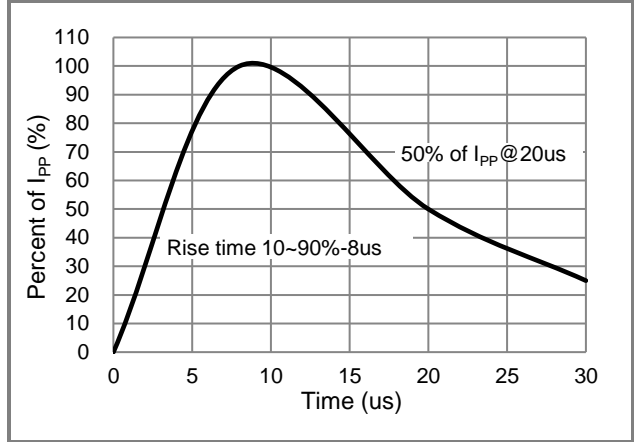


Fig.2 Pulse Waveform

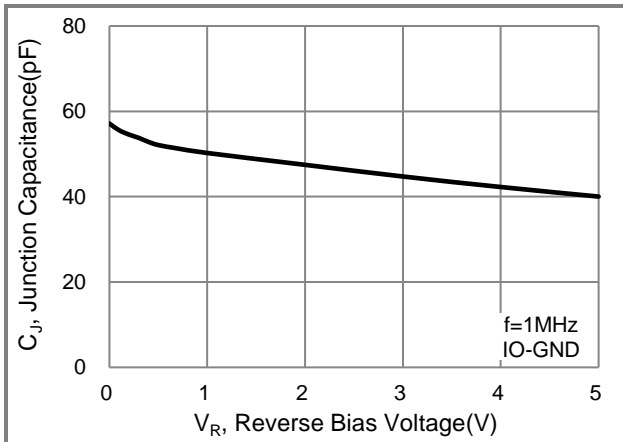


Fig.3 Typical Junction Capacitance

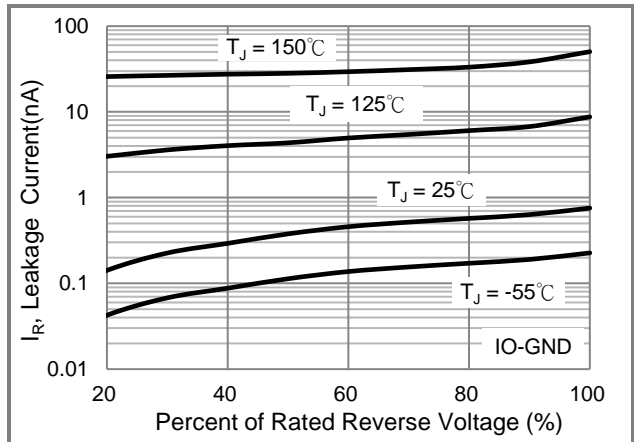


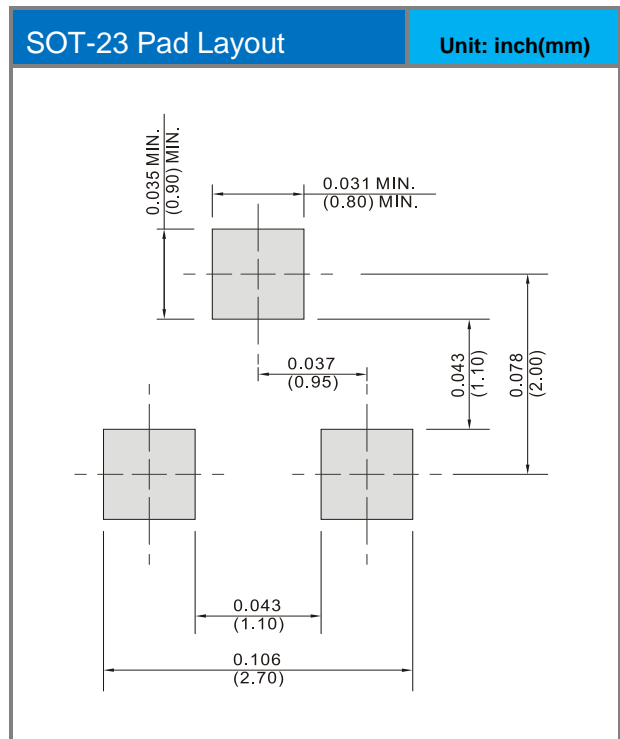
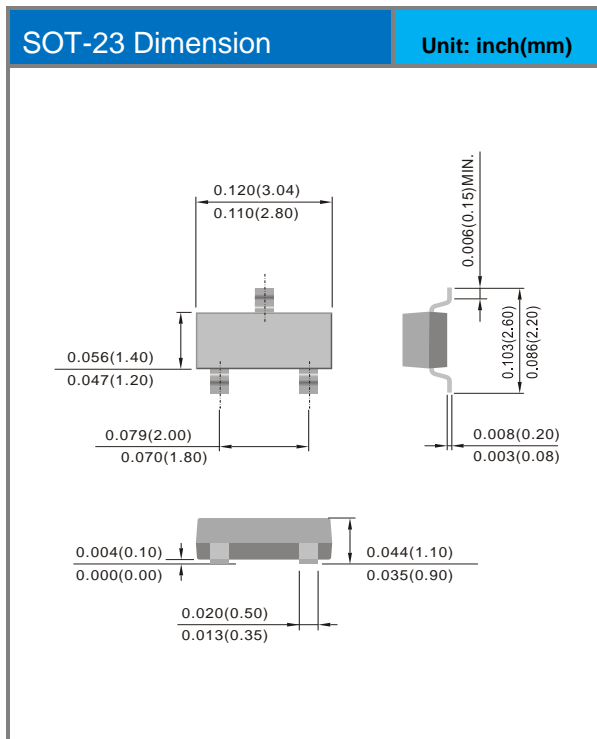
Fig.4 Typical Reverse Characteristics

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PEC4205C2A-AU	SOT-23	3K pcs / 7" reel	AAK

## Packaging Information & Mounting Pad Layout



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