PEC3124C2A-AU

ESD Protection

Voltage **24 V**

Features

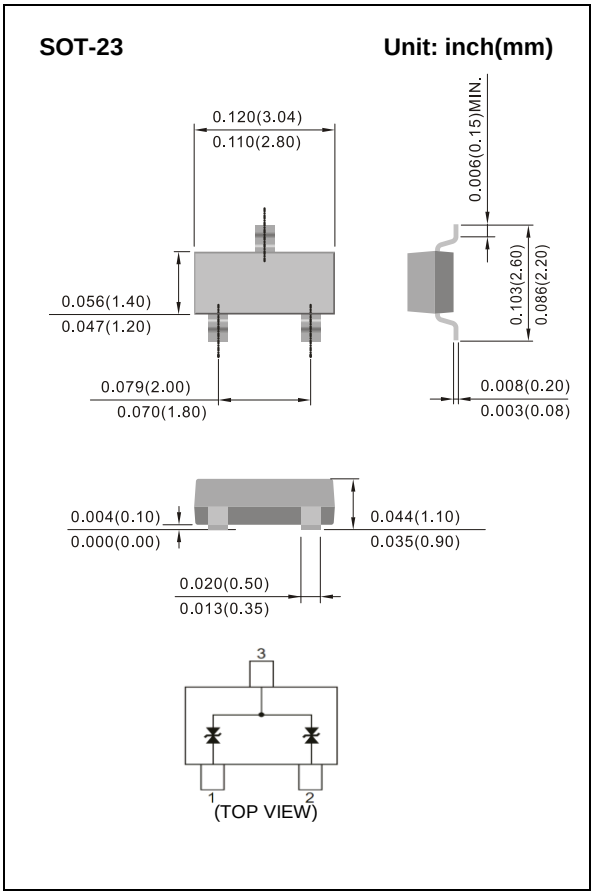
- Bidirectional ESD protection
- IEC61000-4-2(ESD): ±20kV Air, ±18kV Contact
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 3A(8/20μS)
- Low leakage current, maximum of 0.05μA at rated voltage
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

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

Applications

- CAN bus protection
- Automotive applications



Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNITS
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±20 ±18	kV
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage(Note 1)	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	I_R=5mA	25.4	-	30.3	V
Reverse Leakage Current	I_R	V_R=24V	-	-	50	nA
Clamping Voltage	V_{CL}	I_{PP}=1A, t_P=8/20μs	-	-	40	V
		I_{PP}=3A, t_P=8/20μs	-	-	60	V
Clamping Voltage TLP (Note 2)	V_{CL}	I_{PP}=4A, t_P=100ns	-	34.5	-	V
		I_{PP}=8A, t_P=100ns	-	38	-	V
Dynamic Resistance	R_{DYN}	t_P=100ns	-	0.88	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f=1MHz	-	11	15	pF

Note : 1.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.
2.Testing using Transmission Line Pulse (TLP) conditions: Z0 = 50Ω , t_P = 100 ns.

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TYPICAL CHARACTERISTIC CURVES

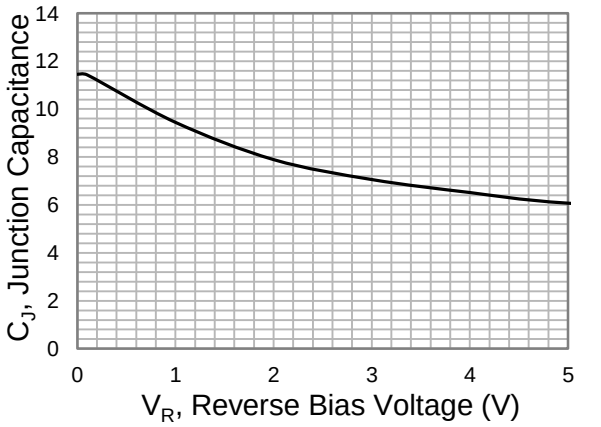

Fig.1 Typical Junction Capacitance

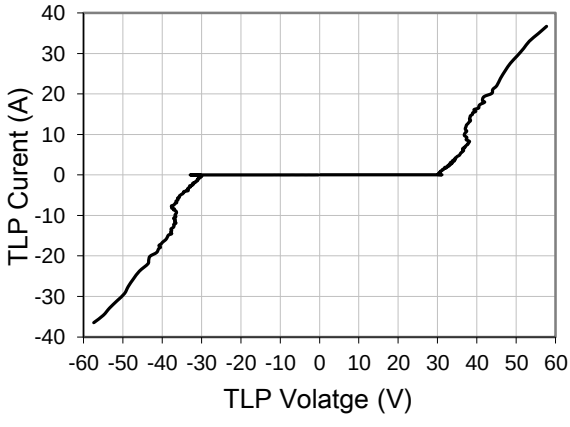

Fig.2 TLP Measurement

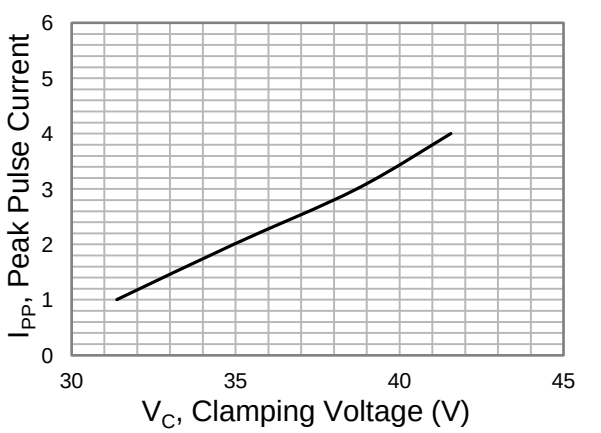

Fig.3 Typical Peak Clamping Voltage(8/20μs)

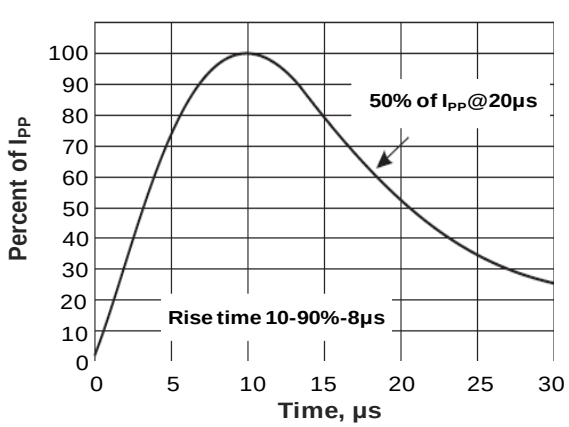

Fig.4 8/20μs Pulse Waveform

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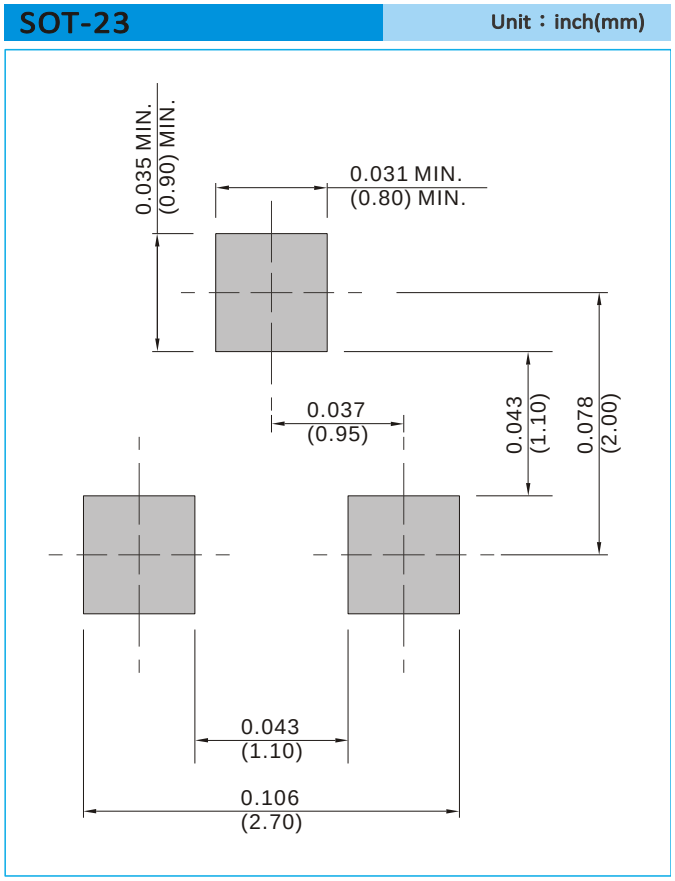
Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PEC3124C2A-AU_R1_000A1	SOT-23	3K / 7" Reel	24A	Halogen Free
PEC3124C2A-AU_R2_000A1	SOT-23	12K / 13" Reel	24A	Halogen Free

MOUNTING PAD LAYOUT



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