

PEC33712C2A

ESD PROTECTION

Voltage

7 V / 12 V

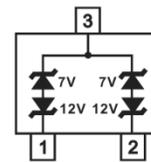
Features

- Protects two +12V to -7V line
- IEC61000-4-2(ESD): ± 30 kV Air, ± 30 kV Contact
- IEC61000-4-4(EFT): 40 A(5/50 ns)
- IEC61000-4-5(Lightning): 5A(8/20 μ S)
- Low clamping voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: Molded plastic, SOT-23
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams

SOT-23



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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V _{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V _{RWM} ⁽¹⁾	Pin1 to Pin3 or Pin2 to Pin3	-	-	12	V
		Pin3 to Pin1 or Pin3 to Pin2	-	-	7	
Reverse Breakdown Voltage	V _{BR}	Pin1 to Pin3 or Pin2 to Pin3, I _R = 1 mA	13.3	-	-	V
		Pin3 to Pin1 or Pin3 to Pin2, I _R = 1 mA	7.5	-	-	
Reverse Leakage Current	I _R	Pin1 to Pin3 or Pin2 to Pin3, V _R = 12 V	-	-	1	uA
		Pin3 to Pin1 or Pin3 to Pin2, V _R = 7 V	-	-	1	
Clamping Voltage	V _{CL}	Pin1 to Pin3 or Pin2 to Pin3, I _{PP} = 1 A, t _P = 8/20 us	-	-	19	V
		Pin1 to Pin3 or Pin2 to Pin3, I _{PP} = 5 A, t _P = 8/20 us	-	-	25	
		Pin3 to Pin1 or Pin3 to Pin2, I _{PP} = 1 A, t _P = 8/20 us	-	-	12	
		Pin3 to Pin1 or Pin3 to Pin2, I _{PP} = 8 A, t _P = 8/20 us	-	-	15	
Off State Junction Capacitance	C _J	0Vdc Bias f = 1 MHz	-	29	35	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.

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TYPICAL CHARACTERISTIC CURVES

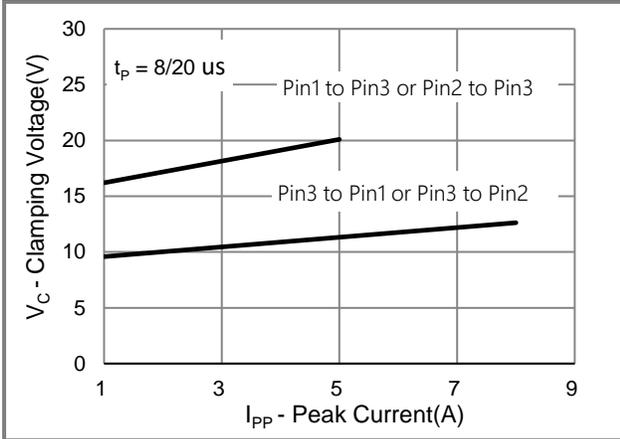


Fig.1 Typical Peak Clamping Voltage

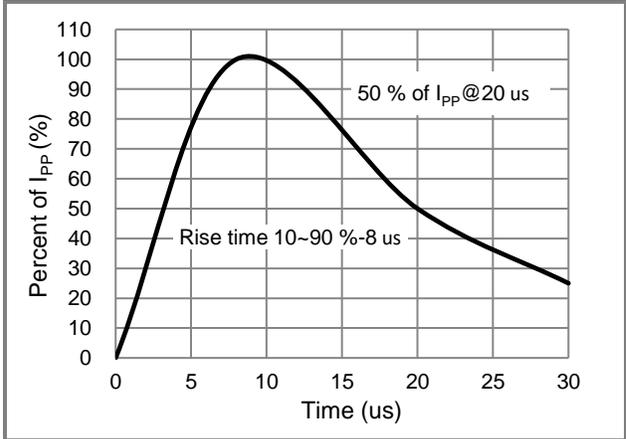


Fig.2 Pulse Waveform

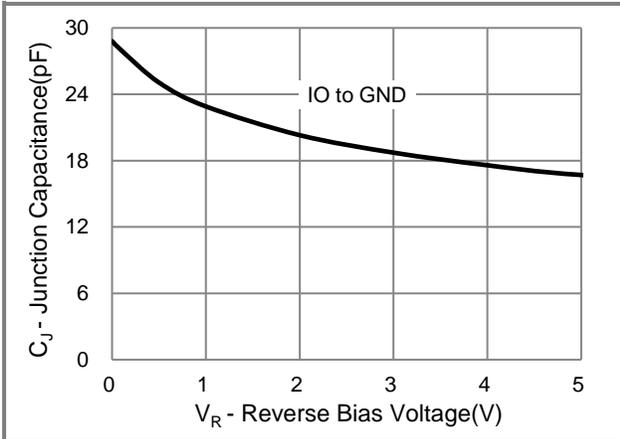


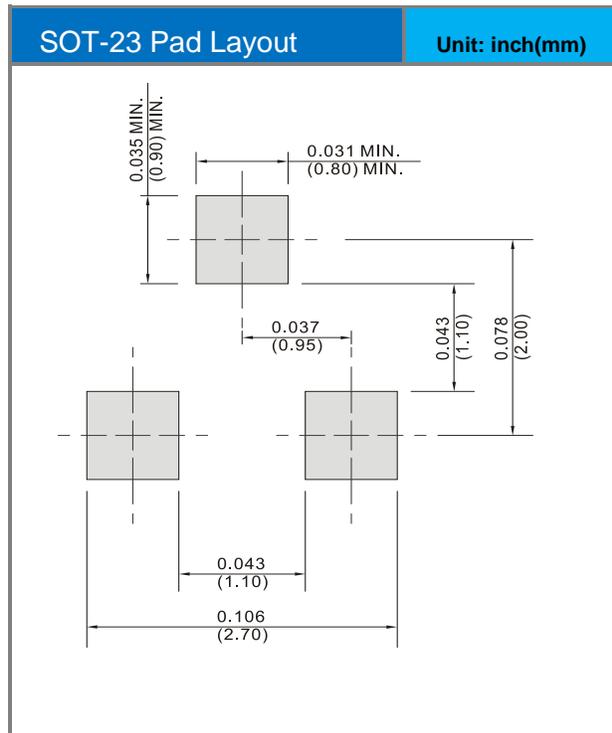
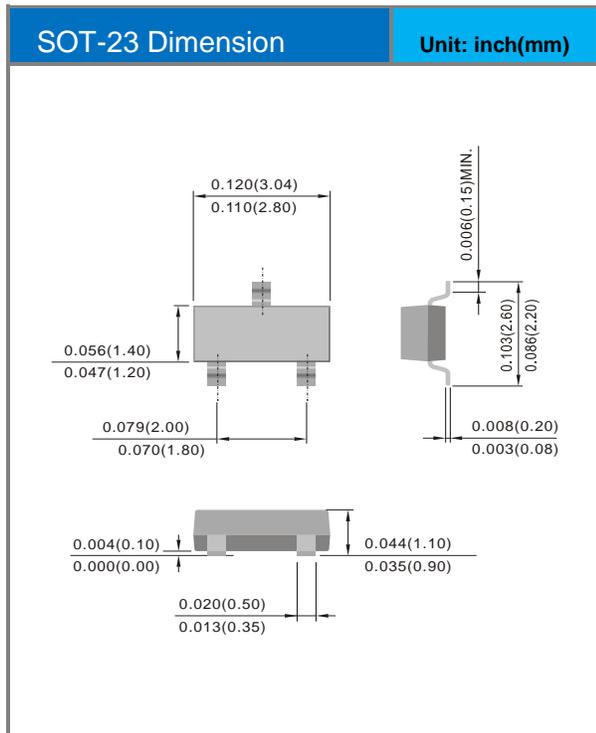
Fig.3 Typical Junction Capacitance

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PEC33712C2A	SOT-23	3K / 7" Reel	3TA

Packaging Information & Mounting Pad Layout



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