



PEC33712C2A

ESD PROTECTION

Voltage

7 V / 12 V

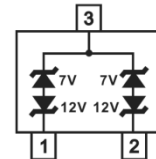
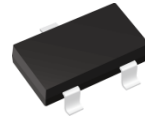
Features

- 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 ($T_A = 25^\circ\text{C}$ 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	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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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	$V_{RWM}^{(1)}$	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, $I_R = 1\text{ mA}$	13.3	-	-	V
		Pin3 to Pin1 or Pin3 to Pin2, $I_R = 1\text{ mA}$	7.5	-	-	
Reverse Leakage Current	I_R	Pin1 to Pin3 or Pin2 to Pin3, $V_R = 12\text{ V}$	-	-	1	uA
		Pin3 to Pin1 or Pin3 to Pin2, $V_R = 7\text{ V}$	-	-	1	
Clamping Voltage	V_{CL}	Pin1 to Pin3 or Pin2 to Pin3, $I_{PP} = 1\text{ A}$, $t_P = 8/20\text{ us}$	-	-	19	V
		Pin1 to Pin3 or Pin2 to Pin3, $I_{PP} = 5\text{ A}$, $t_P = 8/20\text{ us}$	-	-	25	
		Pin3 to Pin1 or Pin3 to Pin2, $I_{PP} = 1\text{ A}$, $t_P = 8/20\text{ us}$	-	-	12	
		Pin3 to Pin1 or Pin3 to Pin2, $I_{PP} = 8\text{ A}$, $t_P = 8/20\text{ us}$	-	-	15	
Off State Junction Capacitance	C_J	0Vdc Bias $f = 1\text{ MHz}$	-	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

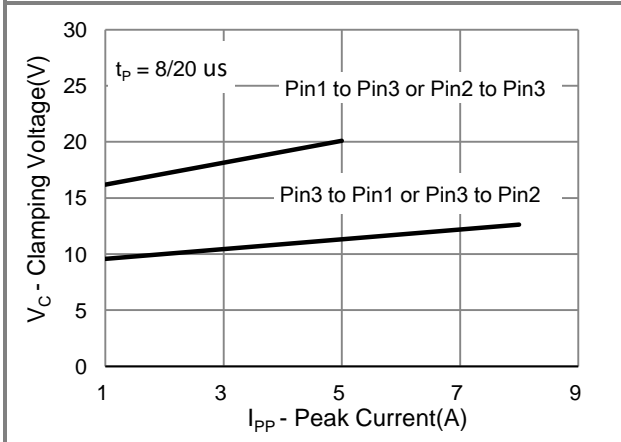


Fig.1 Typical Peak Clamping Voltage

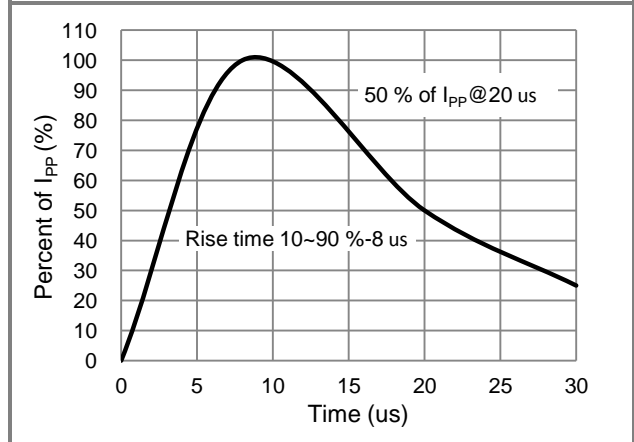


Fig.2 Pulse Waveform

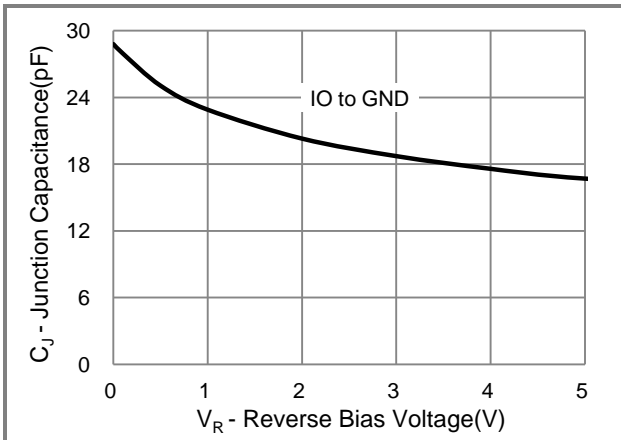


Fig.3 Typical Junction Capacitance

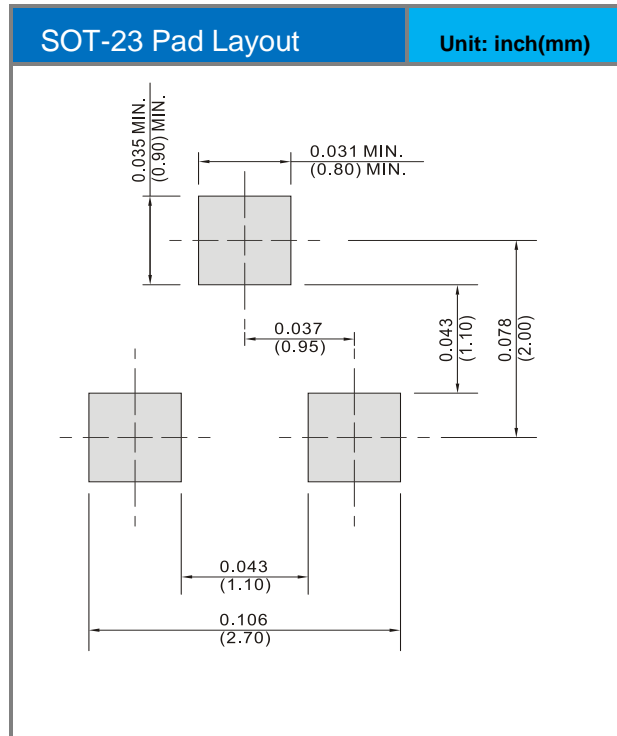
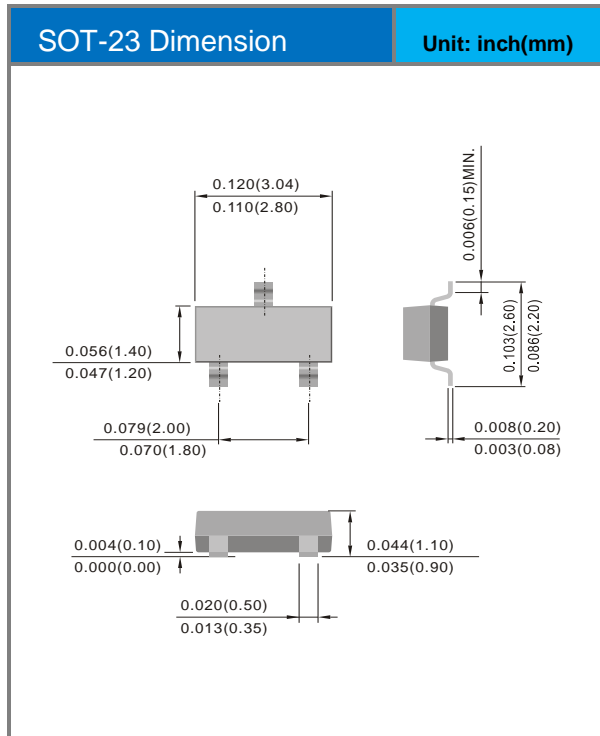


PEC33712C2A

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PEC33712C2A_R1_00001	SOT-23	3K / 7" Reel	3TA	Halogen Free

Packaging Information & Mounting Pad Layout





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