PEC3212C1CS-AU

ESD PROTECTION

Voltage 12 V

SOD-323

Features

- ISO10605(C=330pF, R=330Ω): ±30kV Air, ±30kV Contact
- IEC61000-4-5(Lightning): 5A(8/20uS)
- HBM ≧ ± 8 kV & CDM ≧ ± 2 kV
- Low clamping voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: Molded plastic, SOD-323
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams

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

PARAMETER	SYMBOL	LIMIT	UNITS
ISO10605(C=330pF, R=330Ω) (Air) ISO10605(C=330pF, R=330Ω) (Contact)	V_{ESD}	±30 ±30	kV
Typical Thermal Resistance	$R_{\theta JA}$ (1)	650	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

PEC3212C1CS-AU

Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM} (2)	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 1 mA, Any I/O pins to GND	13	-	16	V
Reverse Leakage Current	I_R	V_R = 12 V	-	-	0.1	uA
Clamping Voltage	V_{CL}	I_{PP} = 1 A, t_P = 8/20 us, Any I/O pins to GND	-	-	20	V
		I_{PP} = 5 A, t_P = 8/20 us, Any I/O pins to GND	-	-	23	
Clamping Voltage TLP	V_{CL} (3)	I_{PP} = 8 A, t_P = 100 ns	-	17	-	V
		I_{PP} = 16 A, t_P = 100 ns	-	20	-	
Dynamic Resistance	R_{DYN}	t_P = 100 ns	-	0.38	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f = 1MHz, Any I/O pins to GND	-	15	20	pF

NOTES:

1. Mounted on a FR4 PCB, Single-sided copper, mini pad.
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. Testing using Transmission Line Pulse (TLP) conditions: Z0 = 50Ω, t_P = 100 ns.

PEC3212C1CS-AU

TYPICAL CHARACTERISTIC CURVES

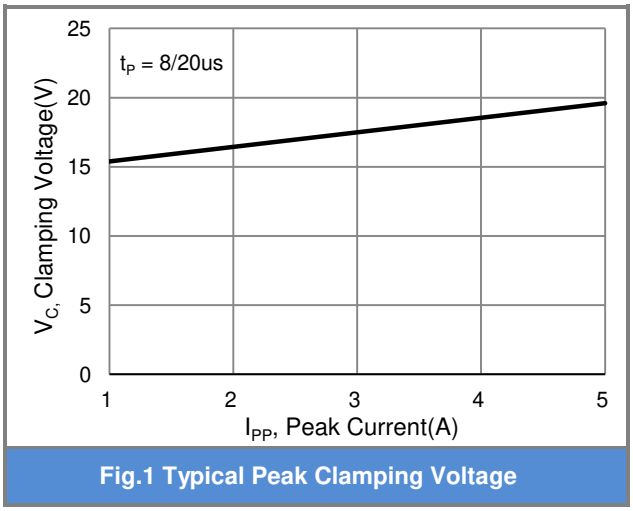


Fig.1 Typical Peak Clamping Voltage

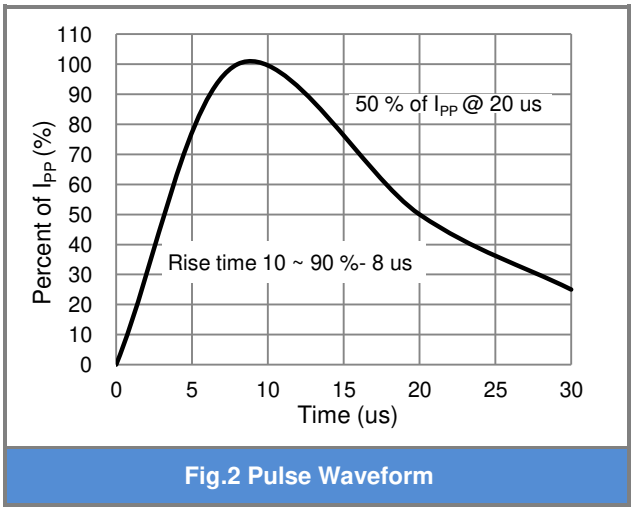


Fig.2 Pulse Waveform

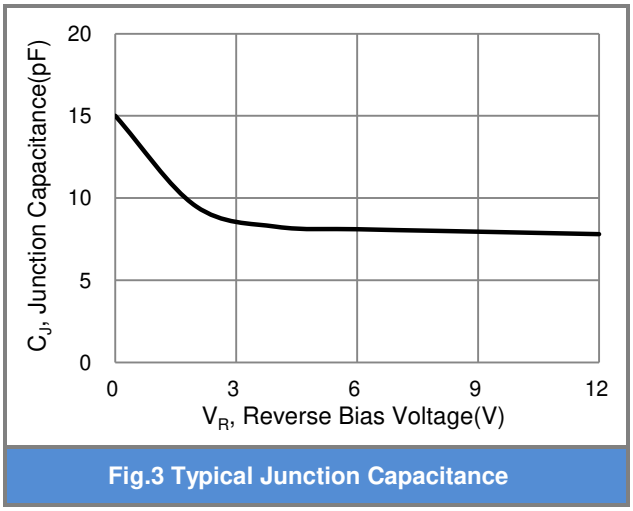


Fig.3 Typical Junction Capacitance

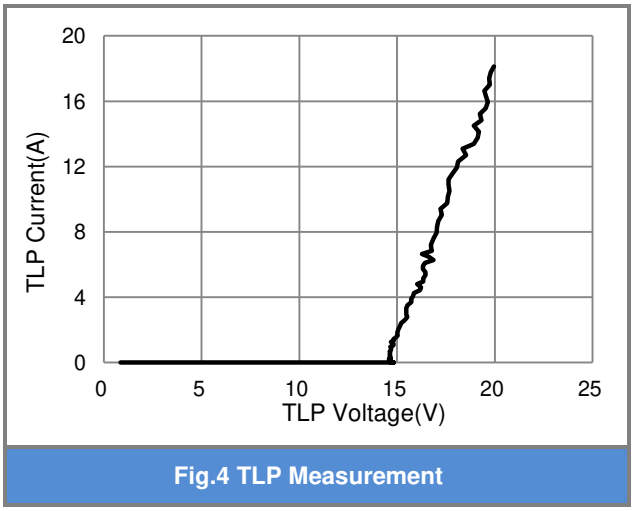


Fig.4 TLP Measurement

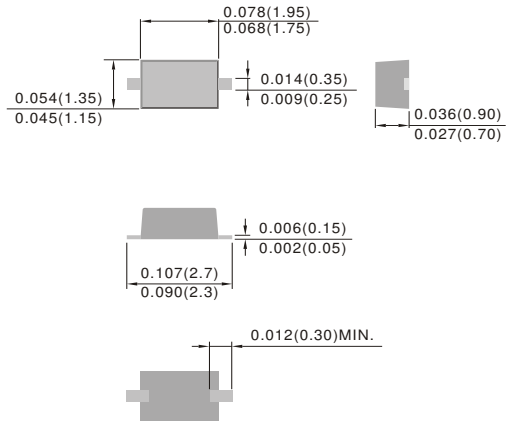
PEC3212C1CS-AU

Part No Packing Code Version

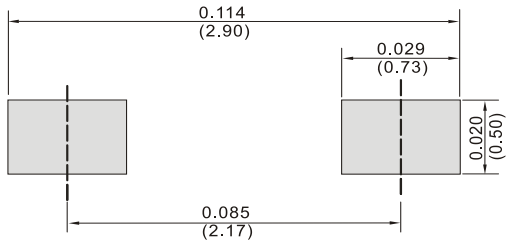
Part No Packing Code	Package Type	Packing Type	Marking	Version
PEC3212C1CS-AU_R1_000A1	SOD-323	5K / 7" Reel	32S	Halogen Free

Packaging Information & Mounting Pad Layout

SOD-323 Dimension — Unit: inch(mm)



SOD-323 Pad Layout — Unit: inch(mm)



PEC3212C1CS-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.