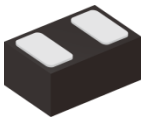
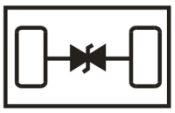
PEC1205S1Q

ULTRA LOW CAPACITANCE ESD PROTECTION

Voltage **5 V**

DFN0603-2L





Features

- IEC61000-4-2(ESD): ±15kV Air, ±15kV Contact
- IEC61000-4-4(EFT): 40A(5/50ns)
- IEC61000-4-5(Lightning): 2A(8/20uS)
- 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, DFN0603-2L
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00001 ounces, 0.0004 grams

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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±15 ±15	kV
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

PEC1205S1Q

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM} (1)	-	-	-	5.5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 1 mA	6	-	-	V
Reverse Leakage Current	I_R	V_R = 5 V	-	-	50	nA
Clamping Voltage	V_{CL}	I_{PP} = 1 A, t_P = 8/20 us	-	11	-	V
		I_{PP} = 2 A, t_P = 8/20 us	-	14	-	
Clamping Voltage TLP	V_{CL}(2)	I_{PP} = 8 A, t_P = 100 ns,	-	21	-	V
		I_{PP} = 16 A, t_P = 100 ns,	-	30	-	
Dynamic Resistance	R_{DYN}	t_P = 100 ns	-	1.1	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f = 1 MHz	-	-	0.2	pF

NOTES :

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 = 50 Ω, t_P = 100 ns.

PEC1205S1Q

TYPICAL CHARACTERISTIC CURVES

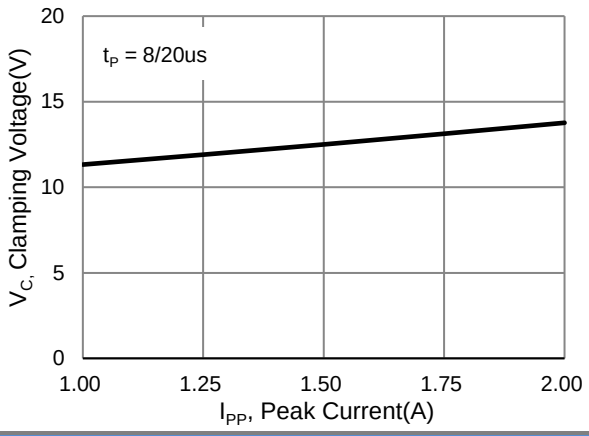


Fig.1 Typical Peak Clamping Voltage

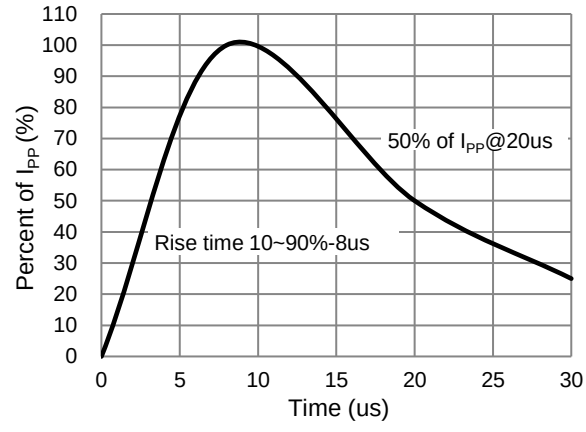


Fig.2 Pulse Waveform

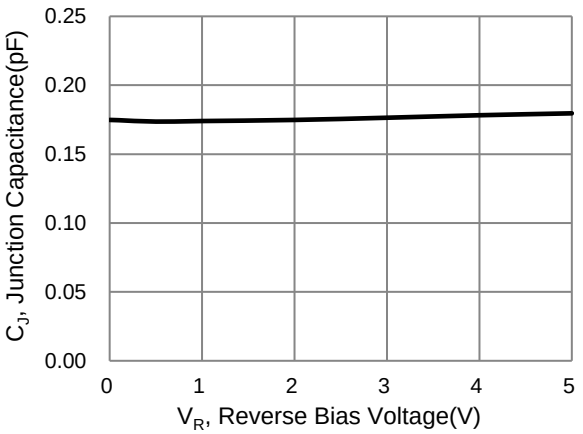


Fig.3 Typical Junction Capacitance

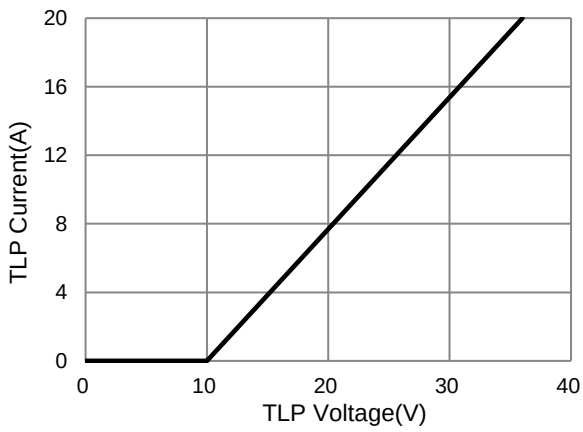


Fig.4 TLP Measurement

Fax ： 02-25215390 極象有限公司 Tel ： 02-25651052

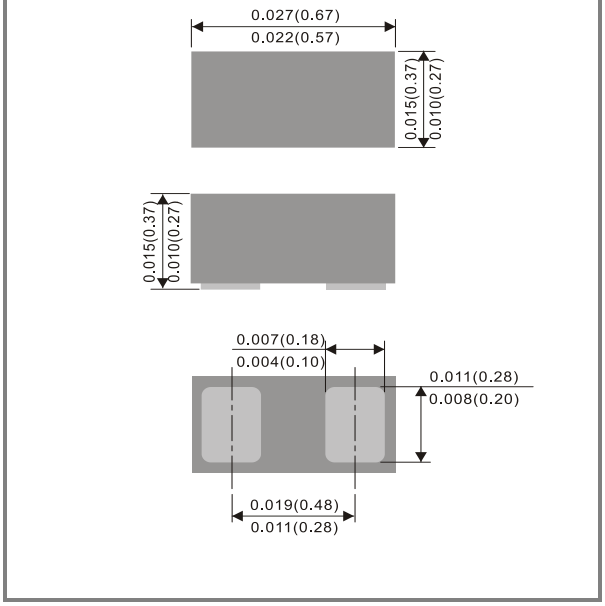
PEC1205S1Q

Product and Packing Information

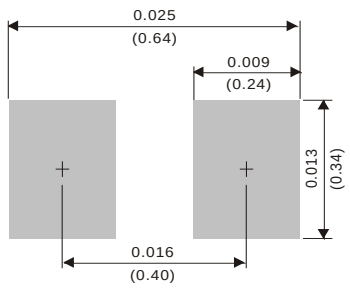
Part No.	Package Type	Packing Type	Marking
PEC1205S1Q	DFN0603-2L	10K / 7" Reel	5SP

Packaging Information & Mounting Pad Layout

DFN0603-2L Dimension — Unit: inch(mm)



DFN0603-2L Pad Layout — Unit: inch(mm)



Fax : 02-25215390 極象有限公司 Tel : 02-25651052

PEC1205S1Q

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.