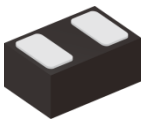
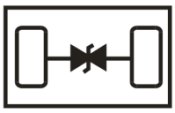
PEC3203S1Q

ESD PROTECTION

Voltage **3.3 V**

DFN0603-2L





Features

- IEC61000-4-2(ESD): ±30kV Air, ±30kV Contact
- IEC61000-4-4(EFT): 40A(5/50ns)
- IEC61000-4-5(Lightning): 10A(8/20uS)
- Low leakage current, maximum of 0.5μA at rated voltage
- 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}	±30 ±30	kV
Typical Thermal Resistance	$R_{\theta JA}$ (1)	500	°C/W
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} (2)	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 50 mA	3.5	-	4.5	V
Reverse Leakage Current	I_R	V_R = 3.3 V	-	-	0.5	uA
Clamping Voltage	V_{CL}	I_{PP} = 1 A, t_P = 8/20 us	-	-	5.5	V
		I_{PP} = 10 A, t_P = 8/20 us	-	-	9	
Clamping Voltage TLP	V_{CL} (3)	I_{PP} = 8 A, t_P = 100 ns,	-	7.2	-	V
		I_{PP} = 16 A, t_P = 100 ns,	-	9.2	-	
Dynamic Resistance	R_{DYN}	t_P = 100 ns	-	0.25	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f = 1 MHz	-	-	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 = 50 Ω , t_P = 100 ns.

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TYPICAL CHARACTERISTIC CURVES

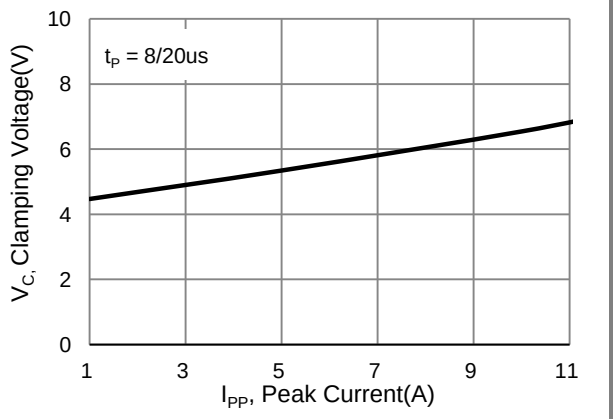

Fig.1 Typical Peak Clamping Voltage

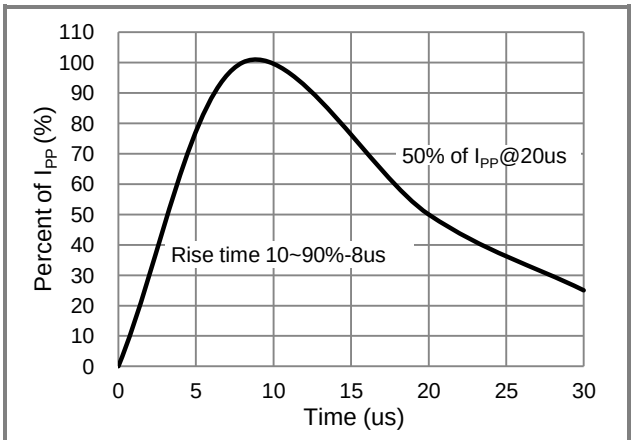

Fig.2 Pulse Waveform

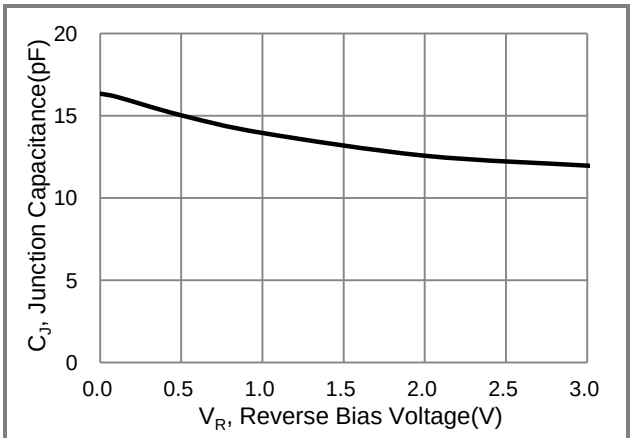

Fig.3 Typical Junction Capacitance

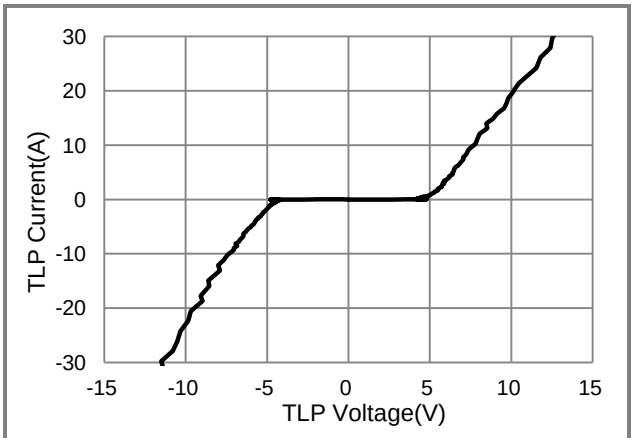

Fig.4 TLP Measurement

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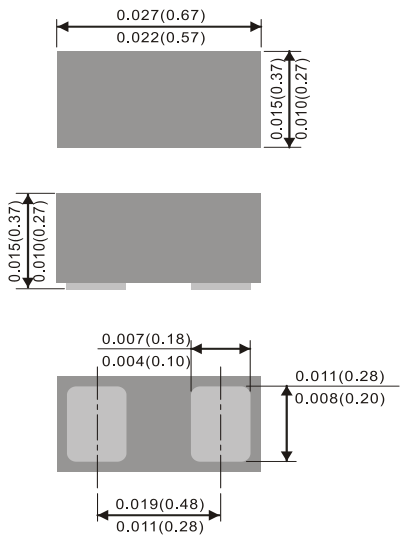
Part No Packing Code Version

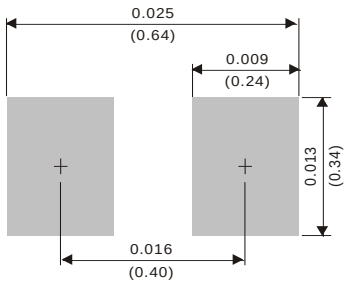
Part No Packing Code	Package Type	Packing Type	Marking	Version
PEC3203S1Q_R1_00001	DFN0603-2L	10K / 7" Reel	HB	Halogen Free

Packaging Information & Mounting Pad Layout

DFN0603-2L Dimension — Unit: inch(mm)



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



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