



PEC2605M1Q

ESD Protection

Voltage

5 V

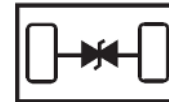
Features

- IEC61000-4-2(ESD) : ± 30 kV Air, ± 30 kV Contact
- IEC61000-4-4(EFT) : 40 A(5/50 ns)
- IEC61000-4-5(Lightning) : 3.5 A(8/20 uS)
- Low leakage current, maximum of 0.1uA at rated voltage
- Ultra low capacitance
- Low clamping voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : DFN1006-2L Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 grams

DFN1006-2L



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	
Typical Thermal Resistance ^(Note 1)	R _{θJA}	430	°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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 2)	V_{RWM}	-	-	-	5	V
Snap-Break Voltage	V_{SB}	$I_{SB} = 50\text{ mA}$	5	-	8	V
Reverse Leakage Current	I_R	$V_R = 5.0\text{ V}$	-	-	0.1	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{ A}, t_P = 8/20\mu\text{s}$	-	-	9	V
		$I_{PP} = 3.5\text{ A}, t_P = 8/20\mu\text{s}$	-	-	12.5	V
Clamping Voltage TLP ^(Note 3)	V_{CL}	$I_{PP} = 8\text{ A}, t_P = 100\text{ ns}$	-	8.6	-	V
		$I_{PP} = 16\text{ A}, t_P = 100\text{ ns}$	-	9.7	-	V
Dynamic Resistance	R_{DYN}	$t_P = 100\text{ ns}$	-	0.27	-	Ω
Off State Junction Capacitance	C_J	0 Vdc Bias $f = 1\text{ MHz}$	-	-	6	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: $Z_0 = 50\ \Omega$, $t_P = 100\text{ ns}$.



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TYPICAL CHARACTERISTIC CURVES

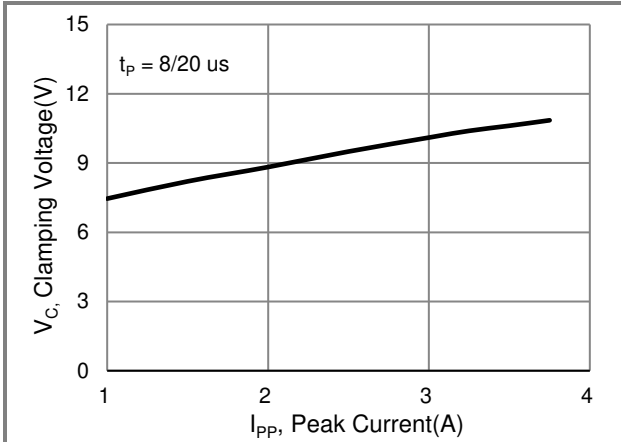


Fig.1 Typical Peak Clamping Voltage

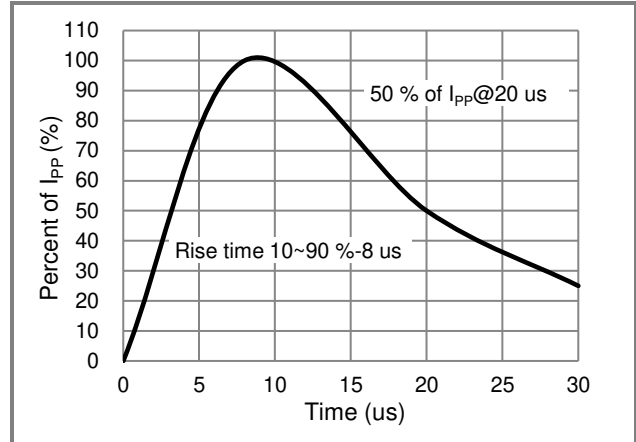


Fig.2 Pulse Waveform

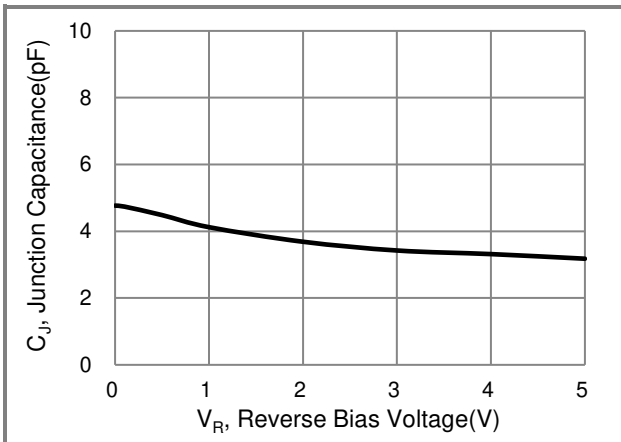


Fig.3 Typical Junction Capacitance

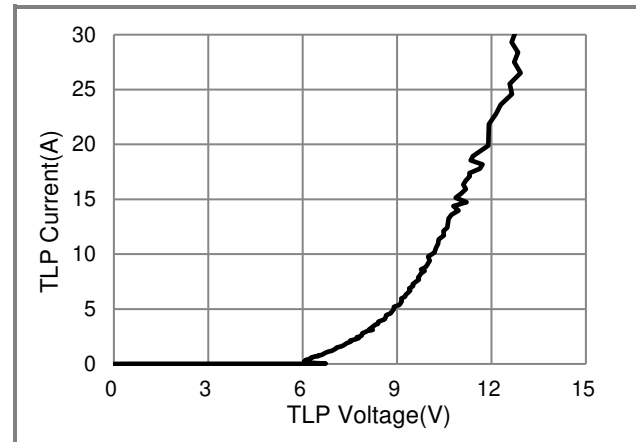


Fig.4 TLP Measurement

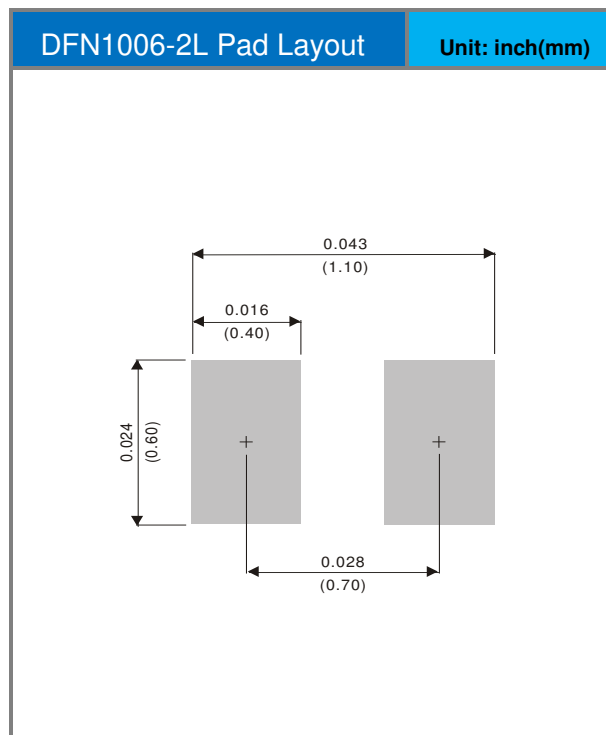
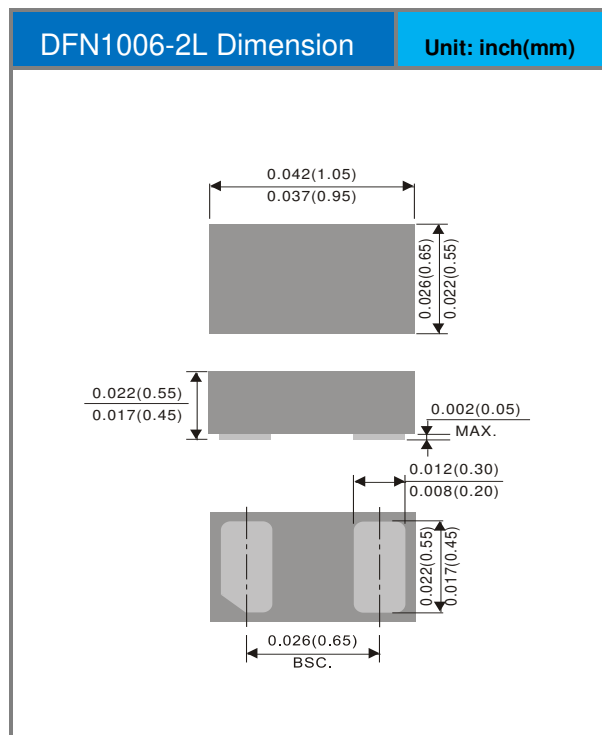


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Product and Packing Information

Part No.	Package Type	Packing Type	Marking	Version
PEC2605M1Q	DFN1006-2L	10K pcs / 7" Reel	HB	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout





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