



PE4205M1Q

Hi-Surge ESD Protection

Voltage

5 V

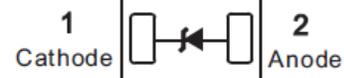
Features

- IEC61000-4-2(ESD) : ± 30 kV Air, ± 30 kV Contact
- IEC61000-4-4(EFT) : 40 A(5/50 ns)
- IEC61000-4-5(Lightning) : 25 A(8/20 uS)
- Low leakage current, maximum of 1uA 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 : 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	
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 ^(Note 1)	V _{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} = 1 mA	6	-	7.5	V
Reverse Leakage Current	I _R	V _R = 5 V	-	-	1	uA
Clamping Voltage	V _{CL}	I _{PP} = 1 A, t _P = 8/20 us	-	-	8	V
		I _{PP} = 25 A, t _P = 8/20 us	-	-	13.5	
Clamping Voltage TLP ^(Note 2)	V _{CL}	I _{PP} = 8 A, t _P = 100 ns	-	9.6	-	V
		I _{PP} = 16 A, t _P = 100 ns	-	12.2	-	
Dynamic Resistance	R _{DYN}	t _P = 100 ns	-	0.33	-	Ω
Off State Junction Capacitance	C _J	0 Vdc Bias f = 1 MHz	-	-	250	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.



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TYPICAL CHARACTERISTIC CURVES

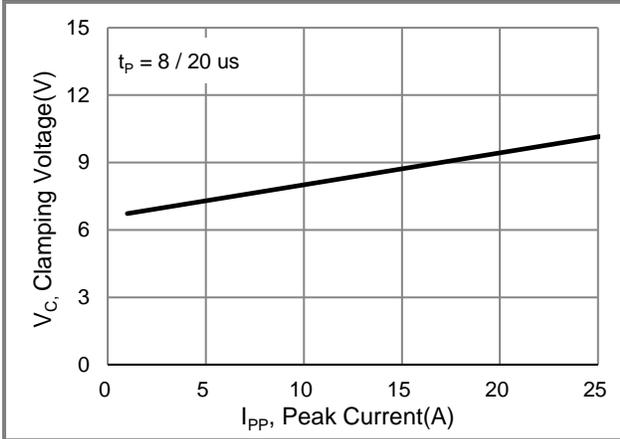


Fig.1 Typical Peak Clamping Voltage

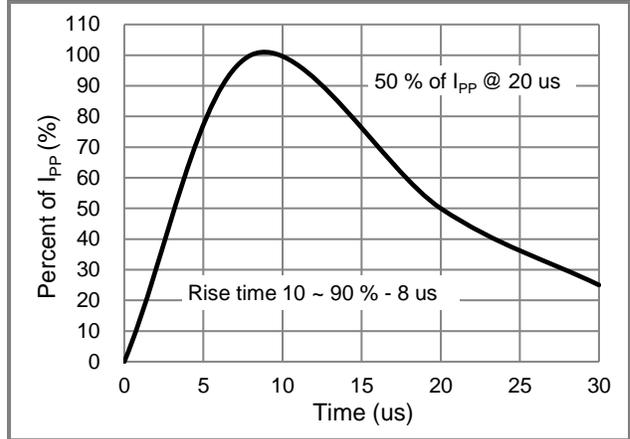


Fig.2 Pulse Waveform

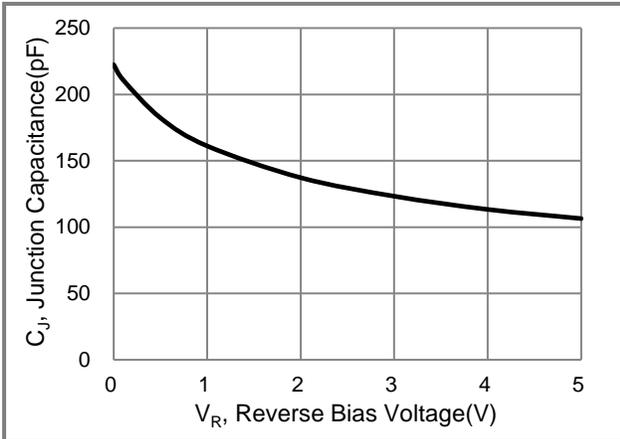


Fig.3 Typical Junction Capacitance

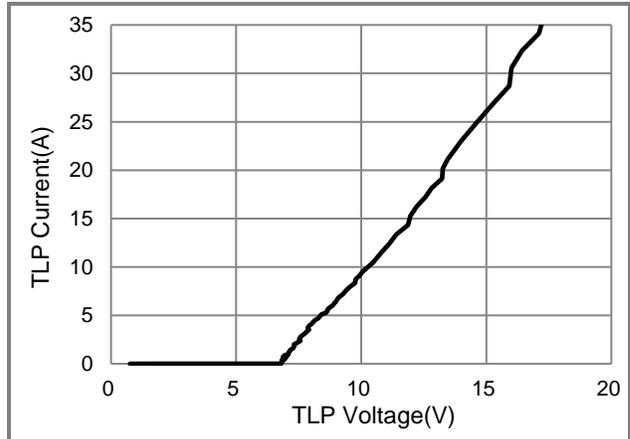


Fig.4 TLP Measurement

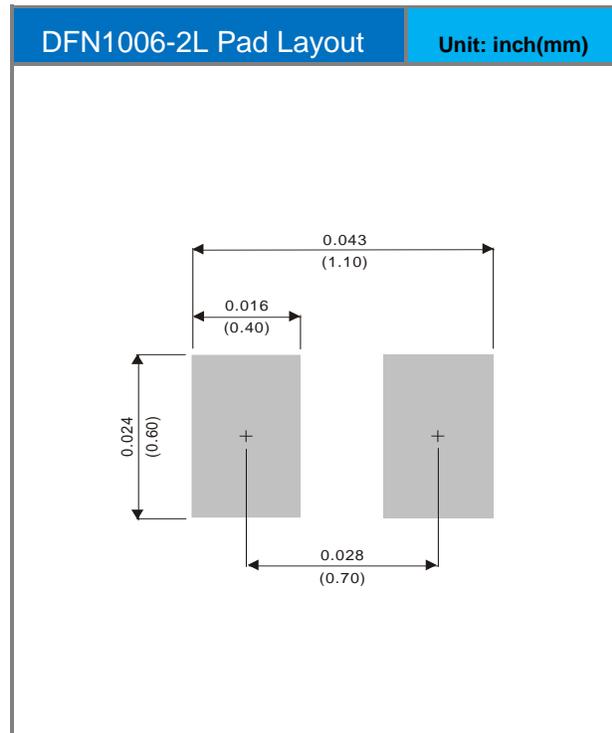
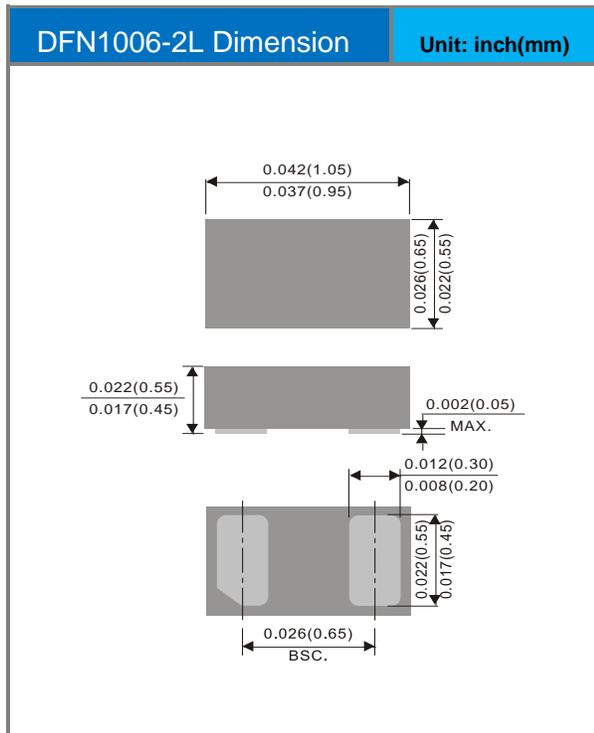


PE4205M1Q

Product and Packing Information

Part No.	Package Type	Packing Type	Marking	Version
PE4205M1Q	DFN1006-2L	10K pcs / 7" Reel	HA	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout





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