



Ultra Low Capacitance ESD Protection

Voltage

5 V

Features

- IEC61000-4-2(ESD) : ±20kV Air, ±15kV Contact
- IEC61000-4-4(EFT): 40A(5/50ns)
- IEC61000-4-5(Lightning) : 2A(8/20μS)
- Low leakage current, maximum of 75nA at rated voltage
- Ultra low capacitance
- Low clamping voltage
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

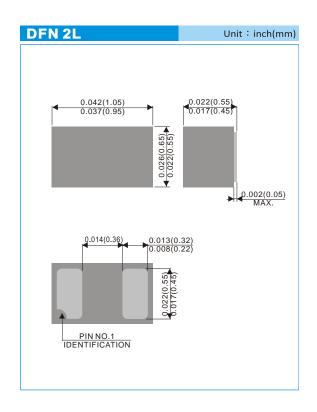
Mechanical Data

- Case: Molded plastic, DFN 2L
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00004 ounces, 0.0011 grams

Applications

- USB 3.0 Data Line Protection
- Mobile Phones and accessories
- Hand held portable
- Digital Cameras
- Computer Interfaces Protection
- Serial and Parallel Ports Protection
- Control Signal Lines Protection





Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNITS	
ESD IEC61000-4-2(Air)	.,,	±20	kV	
ESD IEC61000-4-2(Contact)	V _{ESD}	±15		
Operating Junction Temperature Range	T_J	-55 to +150	°C	
Storage Temperature Range	T _{STG}	-55 to +150	°C	





Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage (Note 1)	V_{RWM}	-	-	-	5.5	V
Reverse Breakdown Voltage	V_{BR}	I _{BR} =1mA	6.8	7.8	11.2	V
Reverse Leakage Current	I _R	V _R =5.0V	-	-	75	nA
Clamping Voltage	V _{CL}	I _{PP} =1A, t _P =8/20μs	-	-	12	V
		I _{PP} =2A, t _P =8/20μs	-	11	14	V
Clamping Voltage TLP (Note 2)	V _{CL}	I _{PP} =8A, t _P =100ns	-	14	-	V
		I _{PP} =16A, t _P =100ns	-	16	-	V
Dynamic Resistance	R_{DYN}	t _P =100ns	-	0.25	-	Ω
Off State Junction Capacitance	CJ	0Vdc Bias f=1MHz	-	-	0.6	рF

Note:

- 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: $Z0 = 50\Omega$, tP = 100 ns.





TYPICAL CHARACTERISTIC CURVES

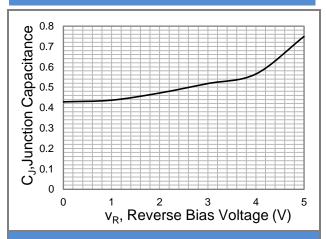


Fig.1 Typical Junction Capacitance

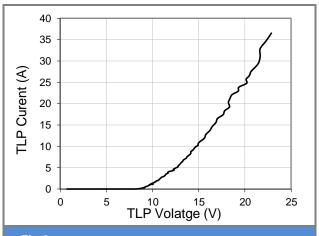


Fig.2 Transmission Line Pulsing (TLP) Measurement

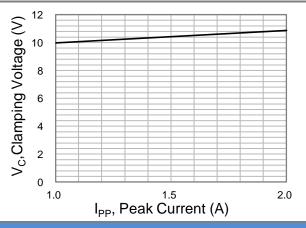
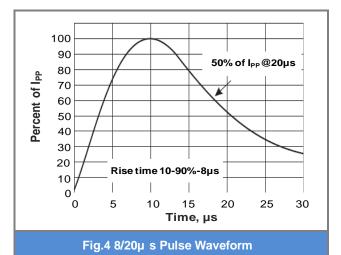


Fig.3 Typical Peak Clamping Voltage(8/20µ s)



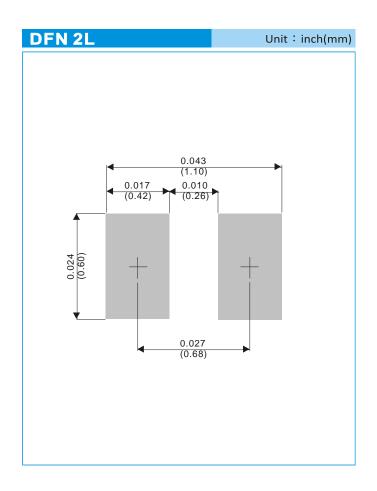




Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PEC1605M1Q_R1_00001	DFN 2L	8K pcs / 7" reel	BF	Halogen free

MOUNTING PAD LAYOUT







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