

PE1805M4Q

ULTRA LOW CAPACITANCE ESD PROTECTION

Voltage

Features

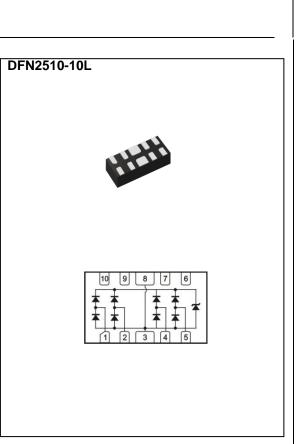
- IEC61000-4-2(ESD): ± 20 kV Air, ± 15 kV Contact
- IEC61000-4-4(EFT): 40 A(5/50 ns)
- IEC61000-4-5(Lightning): 5 A(8/20 uS)

5 V

- Low leakage current, maximum 1uA at rated voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: Molded plastic, DFN2510-10L
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams



Maximum Ratings and Thermal Characteristics ($T_A = 25^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS	
ESD IEC61000-4-2(Air)	±20			
ESD IEC61000-4-2(Contact)	V_{ESD}	±15	kV	
Operating Junction Temperature Range	TJ	-55~150	°C	
Storage Temperature Range	T _{STG}	-55~150	°C	





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Electrical Characteristics ($T_A = 25^{\circ}C$ unless otherwise noted)

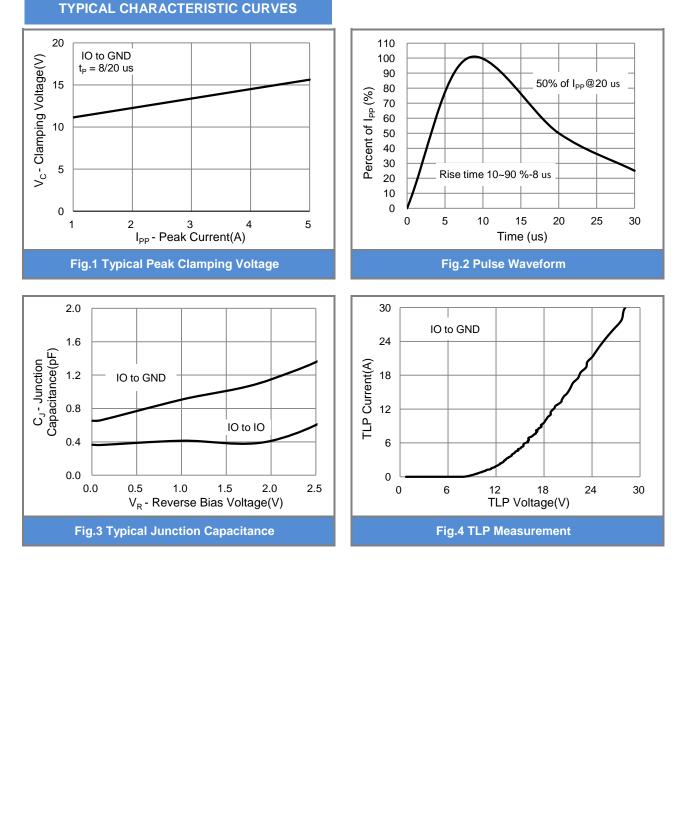
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS	
Reverse Stand-Off Voltage	V _{RWM} ⁽¹⁾	-	-	-	5.5	V	
Reverse Breakdown Voltage	V _{BR}	I _{BR} = 1 mA, any I/O to GND	6.5	-	11	V	
Reverse Leakage Current	I _R	V _R = 5.0 V	-	-	0.1	uA	
Clamping Voltage	V _{CL}	I _{PP} = 1 A, t _P = 8/20 us, any I/O to GND	-	-	12	V	
		$I_{PP} = 5 \text{ A}, t_P = 8/20 \text{ us},$ any I/O to GND	-	-	20		
Clamping Voltage TLP	V _{CL} ⁽²⁾	$I_{PP} = 8 \text{ A}, t_{P} = 100 \text{ ns}$	-	17.1	-	V	
		I _{PP} = 16 A, t _P = 100 ns	-	21.4	-		
Dynamic Resistance	R _{DYN}	t _P = 100 ns	-	0.53	-	Ω	
Off State Junction Capacitance	CJ	0Vdc Bias f = 1 MHz, Between any I/O to GND	-	-	0.8	рF	
		0Vdc Bias f = 1 MHz, Between any I/O pins	-	-	0.4		

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 = 50Ω , t_P = 100 ns.

September 22,2017-REV.00





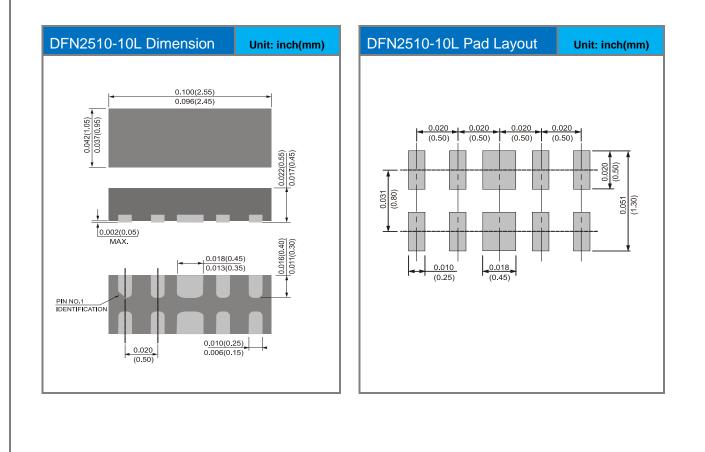


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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PE1805M4Q_R1_00001	DFN2510-10L	5K / 7" Reel	5M4Q	Halogen Free

Packaging Information & Mounting Pad Layout





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