DESCRIPTION

The PESD5V0X2 is available in DFN1006-3L package.

Applications

- Portable multimedia
- Mobile phone, Smart phone, Tablets
- USB VBUS protection
- Power supply protection
- Battery protection

Mechanical Data

- Package: DFN1006-3L
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

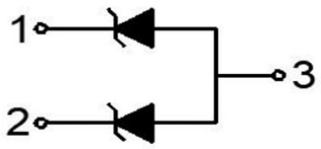
ORDERING INFORMATION

Package Type	Part Number
DFN1006-3L	PESD5V0X2
Note	SPQ: 10,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURE

- 3-pin lead-less package
- Low junction capacitance (TYP value: 0.8pF)
- Peak Pulse Current (8/20μs): 5A
- IEC61000-4-2 (ESD)
  ±25kV (air), ±20kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages: 5V

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted.

P_{PP}, Peak Pulse Power (tp=8/20μswaveform)	75W
I_{PP}, Peak Pulse Current (8/20μs)	5A
V_{ESD}, ESD per IEC 61000-4-2 (Air)	±25kV
V_{ESD}, ESD per IEC 61000-4-2 (Contact)	±20kV
T_J, Operating Temperature Range	-55℃~+125℃
T_{STG}, Storage Temperature Range	-55℃~+150℃

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

IO (Pins 1, 2, 3)

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Reverse Working Voltage	V_{RWM}	Pin 1 or pin 2 to pin 3 and between pin 1 and pin 2	-	-	5	V
Breakdown Voltage	V_{BR}	I_T = 1mA, Pin 1 or pin 2 to pin 3 and between pin 1 and pin 2	6	-	-	V
Reverse Leakage Current	I_R	V_{RWM} = 5V, Pin 1 or pin 2 to pin 3 and between pin 1 and pin 2	-	-	0.5	μA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20μs pulse), Pin 1 or pin 2 to pin 3	-	-	10	V
		I_{PP} = 5A (8 x 20μs pulse), Pin 1 or pin 2 to pin 3	-	-	15	
Junction Capacitance	C_j	V_R = 0V, f = 1MHz, between pin 1 and pin 2	-	0.4	0.6	pF
		V_R = 0V, f = 1MHz, between pin 1 and pin 2	-	0.8	-	

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Power rating derating curve

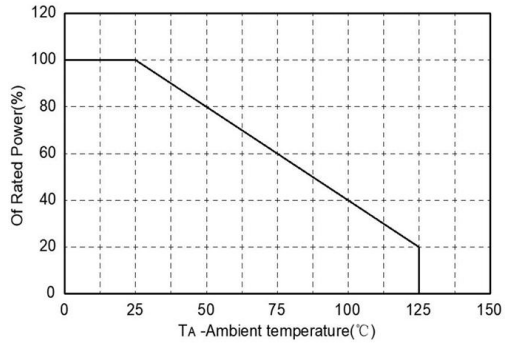


Fig 2. pulse Waveform

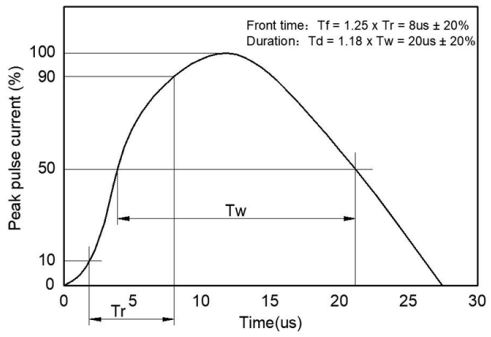


Fig 3. Capacitance between terminals characteristics

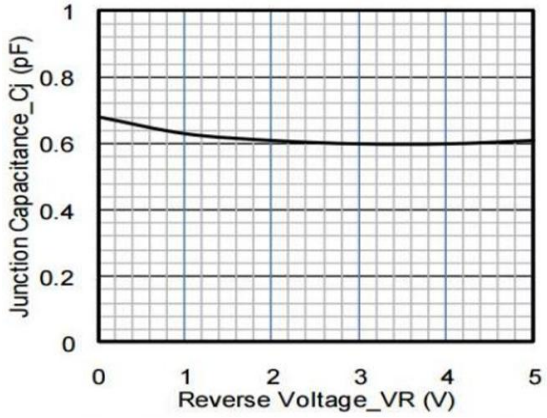
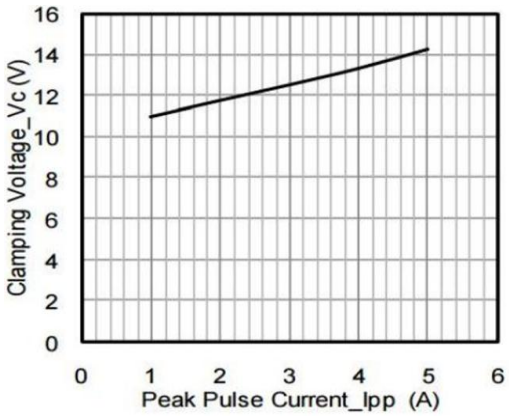
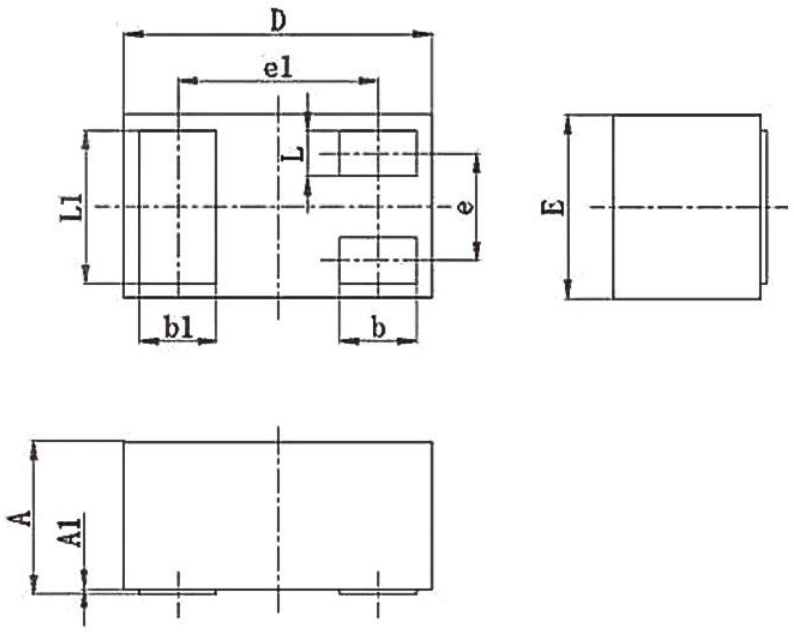


Fig 4. Clamping Voltage vs. Peak Pulse Current



PACKAGE INFORMATION

Dimension in DFN1006-3L Package (Unit: mm)



DIM	MILLIMETERS	
	MIN	MAX
A	0.400	0.500
A1	0.000	0.050
b	0.200	0.300
b1	0.200	0.300
D	0.900	1.100
E	0.550	0.650
e	0.350	
e1	0.650	
L	0.100	0.200
L1	0.450	0.550

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