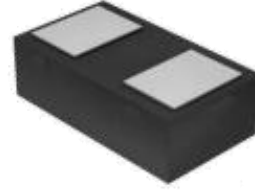




### 1. Features

- Ultra Low Capacitance: 0.30pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): ±20kV  
IEC 61000-4-2 (ESD Contact): ±20kV  
IEC 61000-4-5 (Lightning 8/20µs): 5A

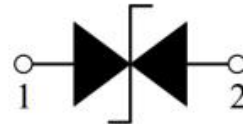
### 2. Pin Description



### 3. Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

### 4. Schematic Diagram



### 5. Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
PESD5V0U1BL	DFN1006	1.00x0.60x0.37	7" T&R	10,000

### 6. Limiting Values(T<sub>A</sub> = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V <sub>ESD</sub>	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±20	kV
		IEC 61000-4-2; Air Discharge	-	±20	kV
P <sub>PP</sub>	Peak Pulse Power	t <sub>p</sub> = 8/20 µs	-	110	W
I <sub>PPM</sub>	Rated Peak Pulse Current	t <sub>p</sub> = 8/20 µs	-	5.0	A
T <sub>A</sub>	Operating Temperature Range	-	-55	125	°C
T <sub>stg</sub>	Storage Temperature Range	-	-55	150	°C



7. Electrical Characteristics(T<sub>A</sub> = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V <sub>RWM</sub>	Reverse Working Voltage	T <sub>A</sub> = 25 °C	-	-	5.0	V
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> = 1mA; T <sub>A</sub> = 25 °C	6.0	8.5	9.5	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>RWM</sub> = 5V; T <sub>A</sub> = 25 °C	-	-	0.1	μA
V <sub>C</sub>	Clamping Voltage	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20μs	-	-	10	V
		I <sub>PP</sub> = 5.0A, t <sub>p</sub> = 8/20μs	-	-	22	V
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> = 0V, f = 1 MHz	-	0.30	0.40	pF

8. Typical Characteristics

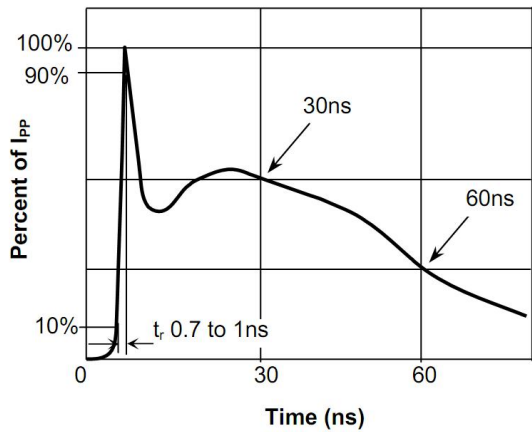


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

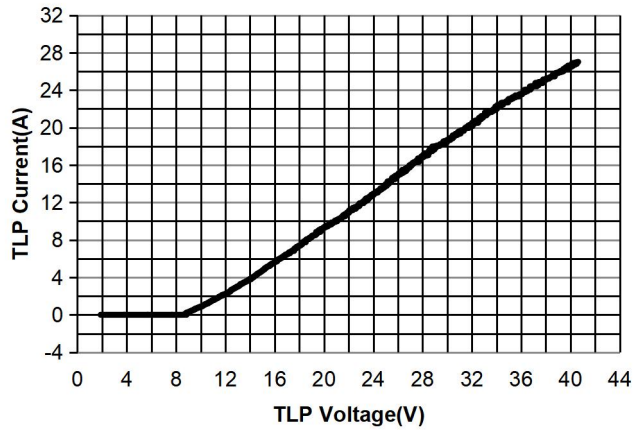


Fig.2 Transmission Line Pulse (TLP)

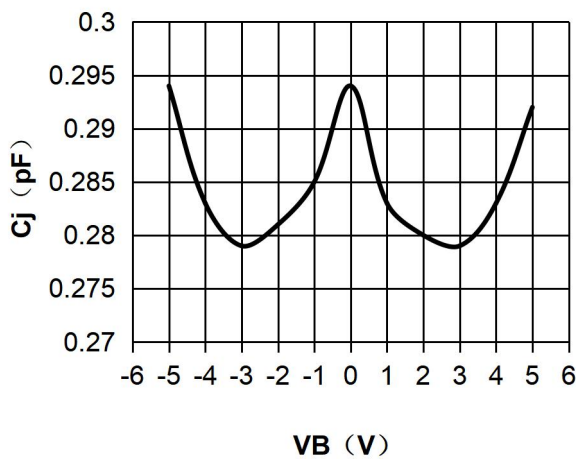


Fig.3 Capacitance vs. Reverse Voltage

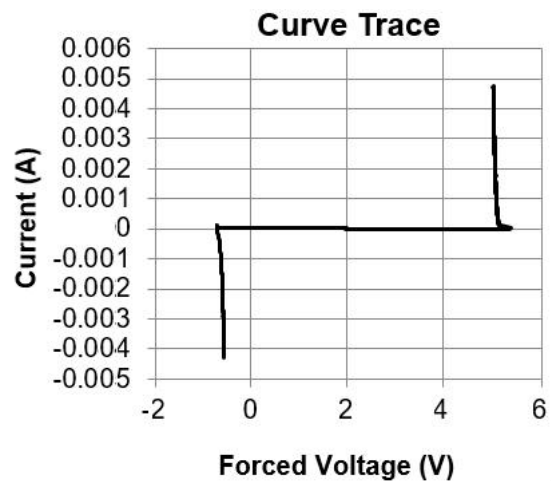
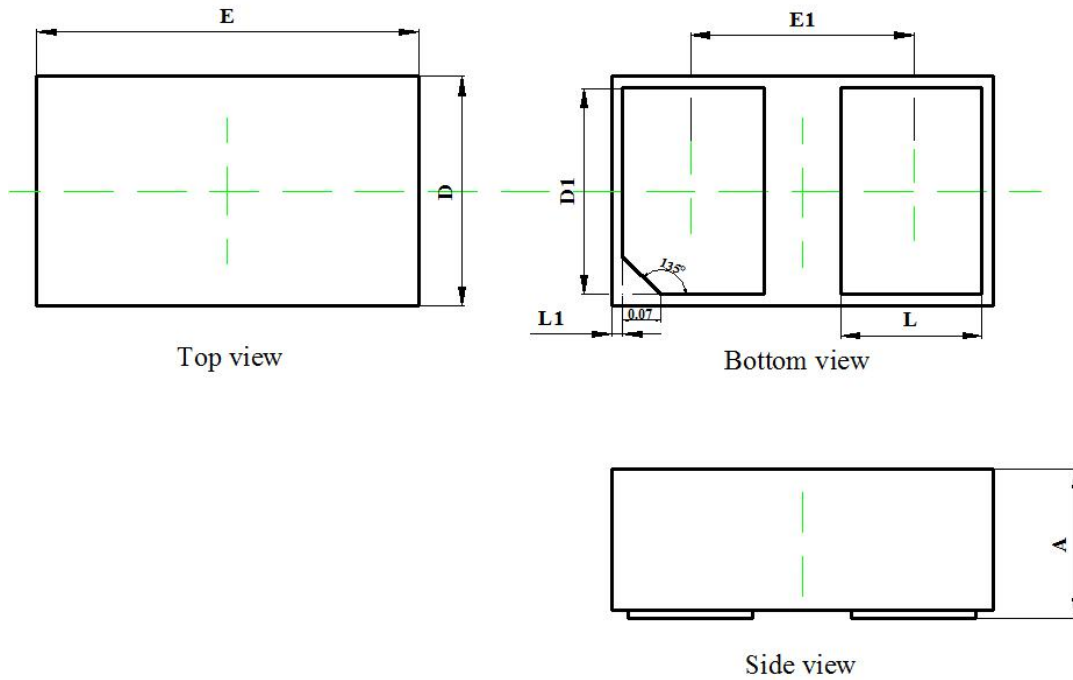


Fig.4 IV Curve



## 9. Package Dimension

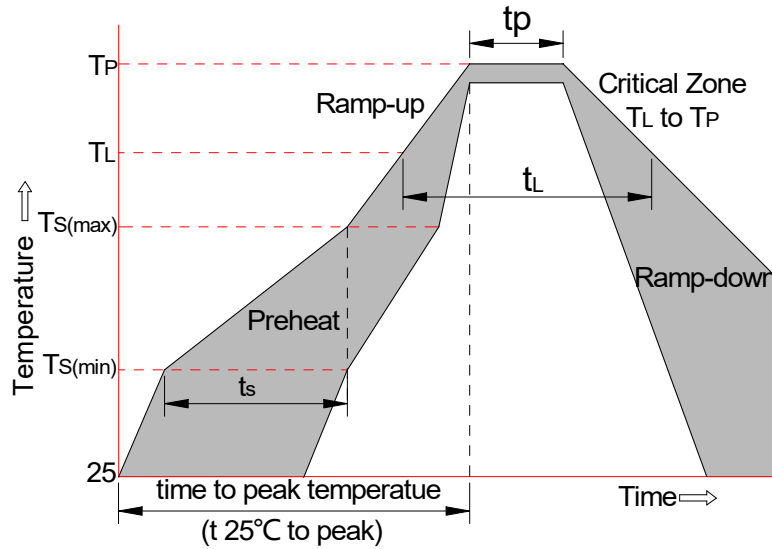
### DFN1006 Package Outline



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
<b>A</b>	0.350	0.450	0.014	0.018
<b>D</b>	0.550	0.650	0.022	0.026
<b>E</b>	0.950	1.050	0.037	0.041
<b>D1</b>	0.420	0.520	0.017	0.020
<b>E1</b>	0.550	0.650	0.022	0.026
<b>L</b>	0.270	0.370	0.011	0.015
<b>L1</b>	0.000	0.100	0.000	0.004



10. Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) ( $t_s$ )	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_p$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp ( $T_p$ )		8 min. Max
Do not exceed		+260°C



## 11. Contact Information

Online product information is available at [www.wdsemi.com](http://www.wdsemi.com)

Buy our products or get free samples, for further information and requests,

Please e-mail us at: [sales1@wdsemi.com](mailto:sales1@wdsemi.com)

## 12. Copyrights & Disclaimer

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu Weida Semiconductor Co., Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu Weida Semiconductor Co., Ltd complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu Weida Semiconductor Co., Ltd assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.