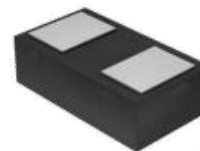




### 1. Features

- Low Capacitance: 8pF(typ.)
- Reverse Working Voltage: 12V
- IEC 61000-4-2 (ESD Air): ±30KV  
IEC 61000-4-2 (ESD Contact): ±30KV  
IEC 61000-4-5 (Lightning 8/20μs): 8A

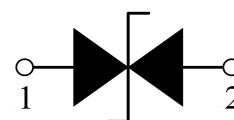
### 2. Pin Description



### 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
PESD12VV1BL	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	-	±30	kV
		IEC 61000-4-2; Air Discharge	-	±30	kV
P <sub>PP</sub>	Peak Pulse Power	t <sub>p</sub> = 8/20 μs	-	150	W
I <sub>PPM</sub>	Rated Peak Pulse Current	t <sub>p</sub> = 8/20 μs	-	8.0	A
T <sub>A</sub>	Ambient 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	-	-	12.0	V
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> = 1mA; T <sub>A</sub> = 25 °C	14.0	14.5	15.0	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>RWM</sub> = 12V; T <sub>A</sub> = 25 °C	-	-	0.1	μA
V <sub>C</sub>	Clamping Voltage	I <sub>PP</sub> =8.0A, t <sub>p</sub> =8/20μs	-	-	19.0	V
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> = 0V, f = 1 MHz	-	8.0	8.5	pF



### 8. Typical Characteristics

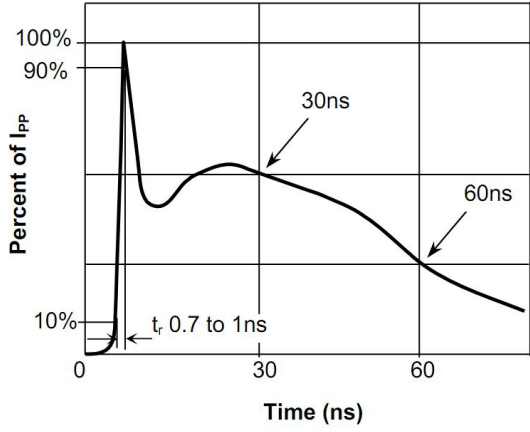


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

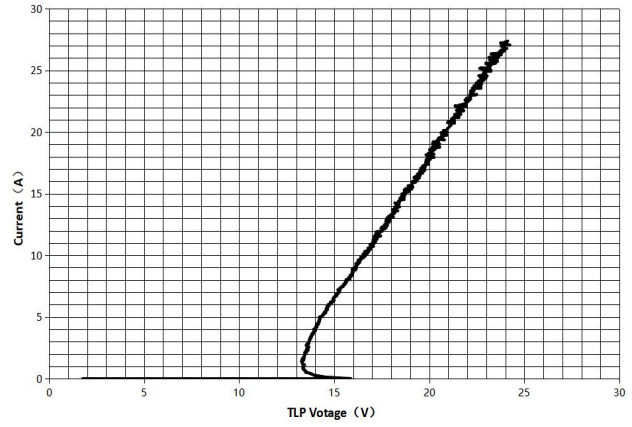


Fig.2 Transmission Line Pulse (TLP)

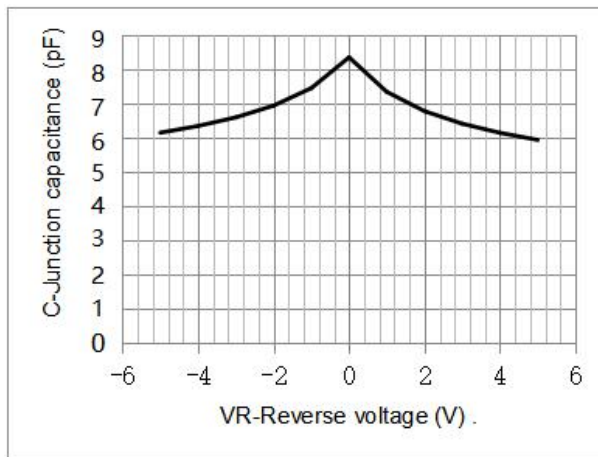


Fig.3 Capacitance vs. Reverse Voltage

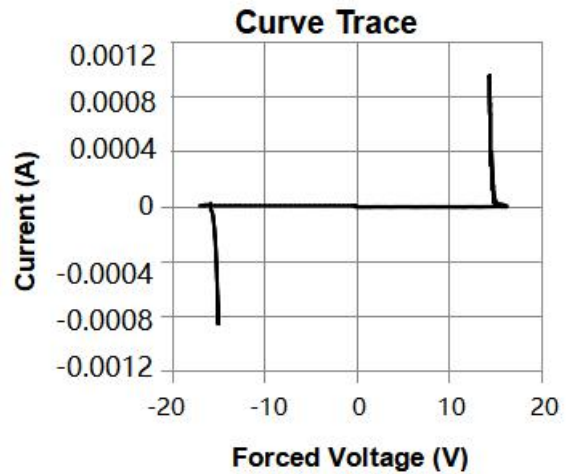
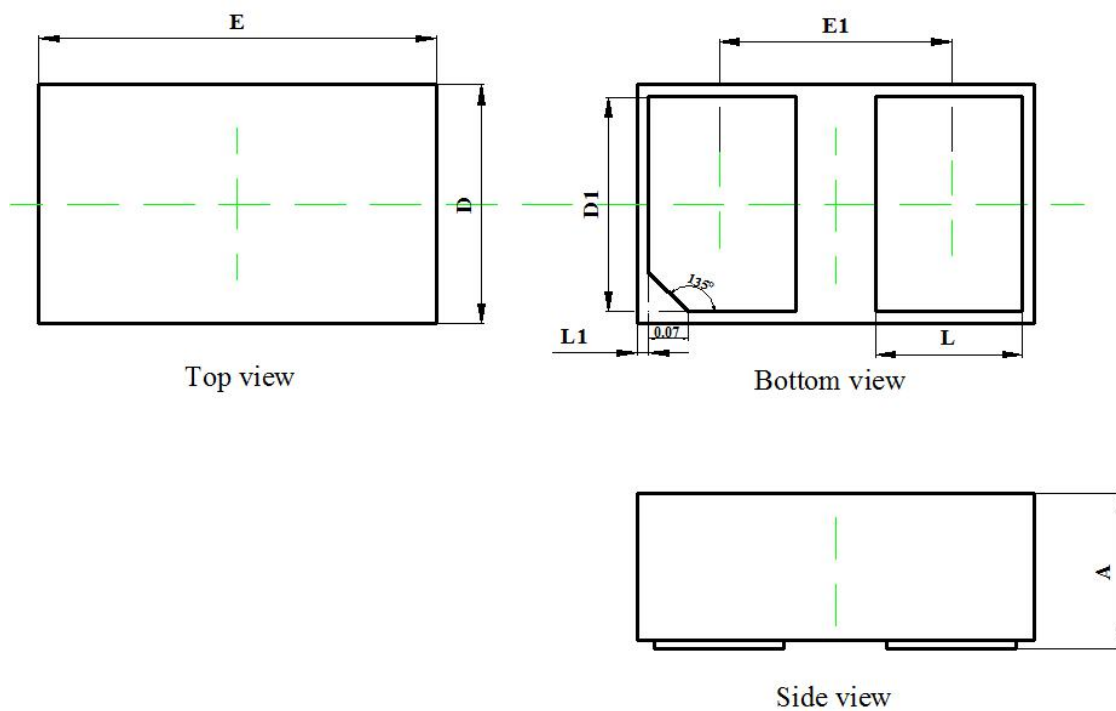


Fig.4 IV Curve (Forward Voltage)



## 9. Package Outline Dimensions

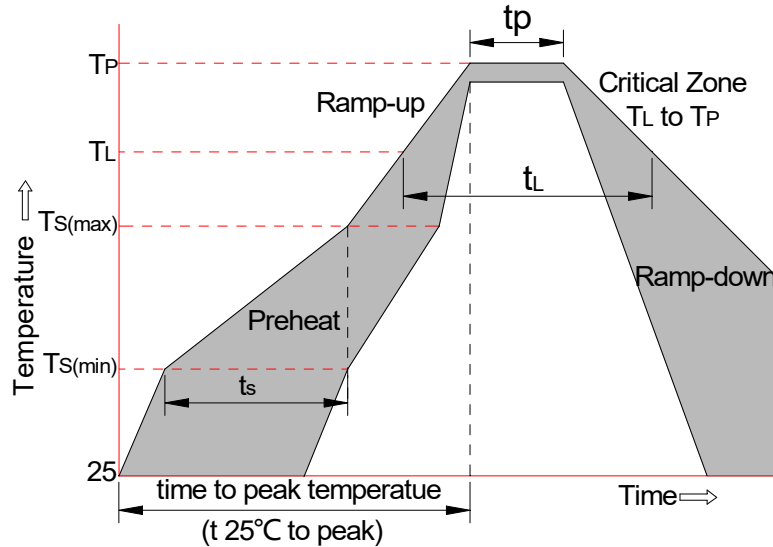
### DFN1006 Package Outline



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)

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