

UNDER DEVELOPMENT

**PHENITEC**  
**SEMICONDUCTOR**

**6ULC4P6V0**

**Ultra-Low Capacitance TVS**

## Features

- Ultra Low Capacitance 0.3pF(Bi-Direction Use)
- High ESD Protection Level IEC61000-4-2,Level 4(ESD) +/-15kV(Contact Air)
- Stand-off Voltage:5V
- For Bi-Directional TVS Use

## Applications

- High speed antenna applications

Item	Characteristics
Wafer size	6inch
Chip size	360 * 280 um
Top metalization	Al-Si

## Maximum Ratings (Ta=25degC)(\*1)

Symbol	Parameter	Value	Units
T <sub>stg</sub>	Storage temperature Range	-55 to+150	Deg C
T <sub>j</sub>	Maximum junction temperature	-55 to+125	Deg C
I <sub>pp</sub>	Peak pulse current(t=8/20usec)	2	A
V <sub>pp</sub>	Electrostatic discharge IEC61000-4-2 Air Discharge IEC61000-4-2 Contact Discharge	±15	kV

(\*1) All Rating values for reference on a SOT-23 package configuration (front: Au wire 35um, back: Au eutectic), mounted on PCB of 1.5cm by 2.5cm.

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## Electrical Characteristics (Ta=25degC)

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### ■ Uni-Direction Use(\*1)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Reverse stand-off voltage	V <sub>RWM</sub>	-	-	5.0	V	
Leakage current	I <sub>R</sub>	-	-	500	nA	V <sub>RWM</sub> = 5.0V
Breakdown voltage	V <sub>BR</sub>	6.0	-	9.0	V	I <sub>R</sub> = 1mA
Clamping voltage	V <sub>C</sub>		10.2	12.0	V	I <sub>pp</sub> =1A , t <sub>p</sub> =8/20us
Capacitance	C	-	0.5	0.8	pF	V <sub>R</sub> = 0V, f = 1MHz

### ■ Bi-Direction Use(\*1)

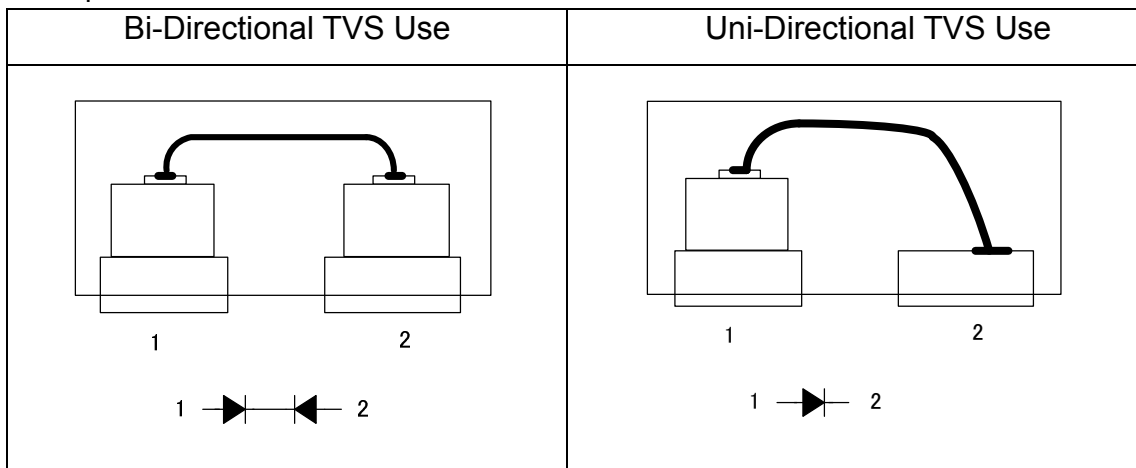
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Reverse stand-off voltage	V <sub>RWM</sub>	-	-	5.0	V	
Leakage current	I <sub>R</sub>	-	0.9	-	nA	V <sub>RWM</sub> = 5.0V
Breakdown voltage	V <sub>BR</sub>	-	8.6	-	V	I <sub>R</sub> = 1mA
Clamping voltage	V <sub>C</sub>		12.3		V	I <sub>pp</sub> =1A , t <sub>p</sub> =8/20us
Capacitance	C	-	0.3	0.5	pF	V <sub>R</sub> = 0V, f = 1MHz

\*1 All values for reference on a SOT-23 package configuration  
(front: Au wire 35um, back: Au eutectic)

# Note

## 1. Assembly

Example: DFN1006



Example: SOT-23

