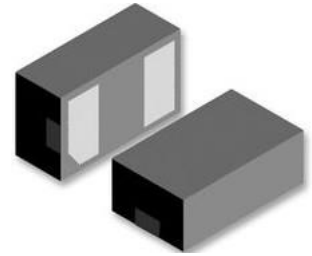


## Ultra-Low Capacitance ESD Protection Diode

### Feature

- Ultra Low Capacitance: 0.35pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air):  $\pm 20$ kV
- IEC 61000-4-2 (ESD Contact):  $\pm 20$ kV
- IEC 61000-4-5 (Lightning 8/20 $\mu$ s): 4.5A



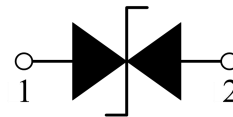
Marking :

DFN1006

### Applications

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

Schematic Diagram



### Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Min	Max	Unit
Peak Pulse Power (TP=8/20 $\mu$ S)	P <sub>PP</sub>		100	W
Electrostatic Discharge Voltage	IEC61000-4-2; Contact Discharge	V <sub>ESD</sub>	$\pm 20$	kV
	IEC61000-4-2; Air Discharge		$\pm 20$	kV
Peak Pulse Current (TP=8/20 $\mu$ S)	I <sub>PP</sub>		4.5	A
Operating temperature	T <sub>J</sub>	-55	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C

### Electrical Specifications (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse stand-off Voltage	V <sub>RWM</sub>	T <sub>A</sub> = 25 °C			5.0	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 1mA; T <sub>A</sub> = 25 °C	6.0	8.5	9.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 5V; T <sub>A</sub> = 25 °C			0.1	$\mu$ A
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>p</sub> =8/20 $\mu$ s			11	V
		I <sub>PP</sub> =4.5A, t <sub>p</sub> =8/20 $\mu$ s			22	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1 MHz		0.35	0.45	pF

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

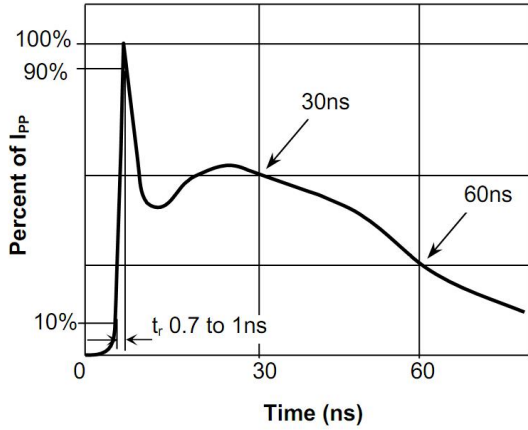


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

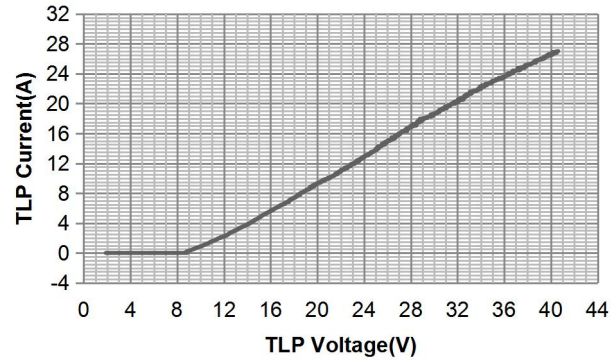


Fig.2 Transmission Line Pulse (TLP)

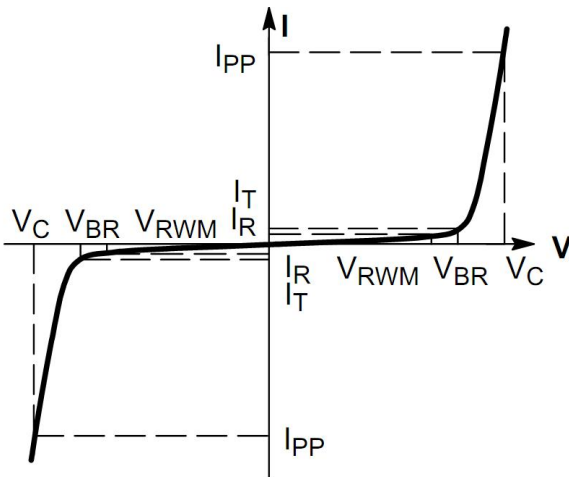


Fig.3 V-I Characteristics for Bidirectional Diode

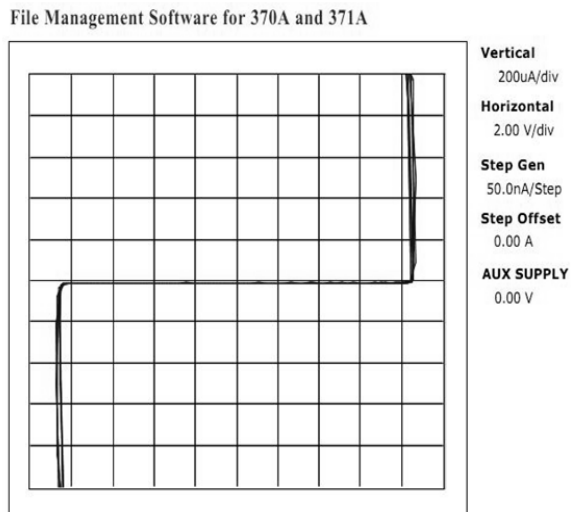
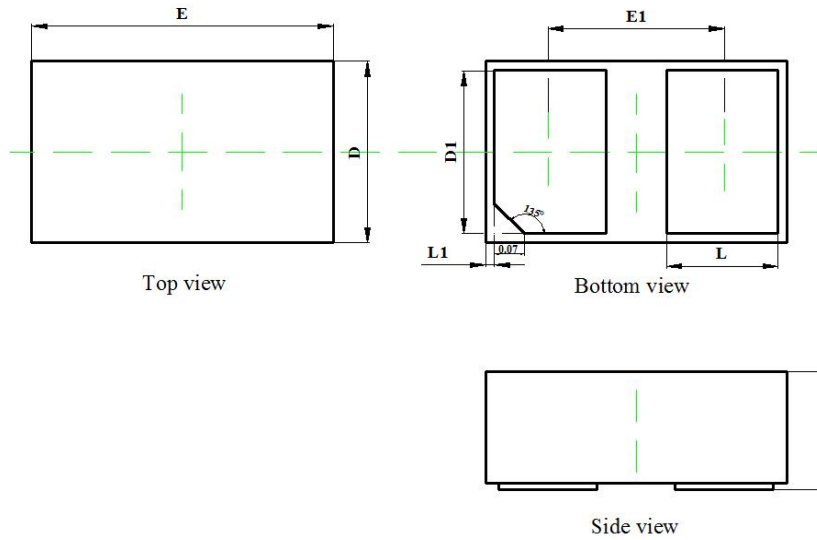


Fig.4 IV Curve

## Package Outline Dimensions

in inches (millimeters)



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

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2019.08.30	Firstissue

## Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.

(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.