



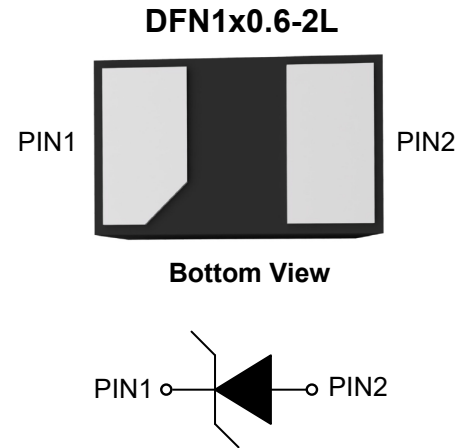
# ESDU5V0ADF Transient Voltage Suppressor

## Descriptions

Designed to protect voltage sensitive electronic components that may be subjected to ESD (Electrostatic Discharge), EFT (Electrical Fast Transients) and Lightning, Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It is particularly well-suited for cellular phones, portable device, digital cameras, power supplies and many other portable applications because of its small package and low weight.

The ESDU5V0ADF is available in DFN1x0.6-2L package. Standard products are Pb-free and Halogen-free.



## Features

- Uni-directional ESD Protection of one line
- Low reverse stand-off voltage: 5.0V
- Transient protection for each line according to IEC61000-4-2 (ESD):  $\pm 8\text{kV}$  (contact discharge)
- Low reverse clamping voltage
- Low leakage current

## Applications

- Cell phone handsets and accessories
- Audio and video equipment
- Portable Electronics
- ther electronics equipments communication systems

## Marking Code



Top View

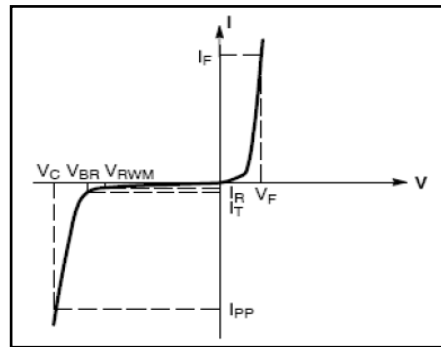


### Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )

Parameter		Symbols	Value	Unit
IEC61000-4-2 ESD Voltage	Air Model	$V_{ESD}$	$\pm 15$	KV
	Contact Model		$\pm 8$	
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )		$P_{PP}$	250	W
Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )		$I_{PP}$	10	A
Junction Temperature		$T_J$	125	$^\circ\text{C}$
Storage Temperature Range		$T_{STG}$	-45 to +125	$^\circ\text{C}$

### Electrical Parameter

Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage
$V_F$	Forward Voltage @ $I_F$
$I_F$	Forward Current



V-I characteristics for a uni-directional TVS

### Electrical Characteristics ( $T_A=25^\circ\text{C}$ )

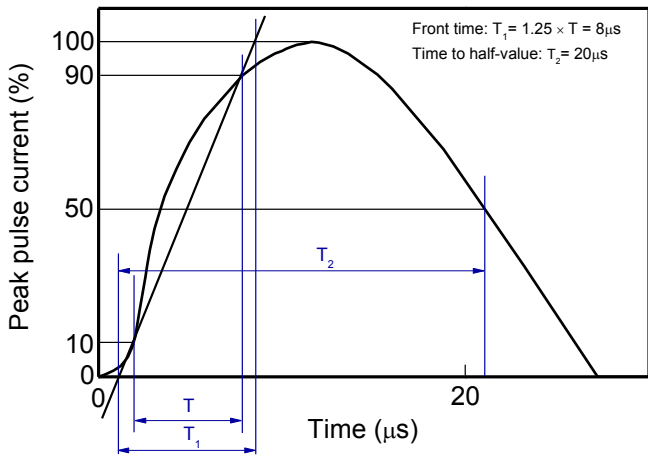
Parameter	Symbols	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	$V_{RWM}$	--	--	5	V
Reverse Leakage Current at $V_{RWM} = 5\text{ V}$	$I_R$	--	--	0.5	$\mu\text{A}$
Breakdown Voltage at $I_T = 5\text{ mA}$	$V_{R(BR)}$	6	--	7.5	V
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	--	0.79	1.1	V
Clamping Voltage at $I_{PP} = 3\text{ A}$ , $t_p = 8/20\mu\text{s}$ at $I_{PP} = 10\text{ A}$ , $t_p = 8/20\mu\text{s}$	$V_C$	--	8.8 17	12 25	V
Junction Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_J$	--	100	150	pF



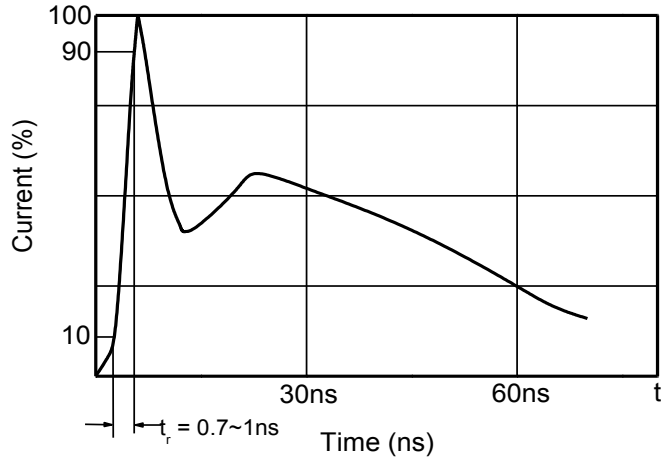
# ESDU5V0ADF

## Transient Voltage Suppressor

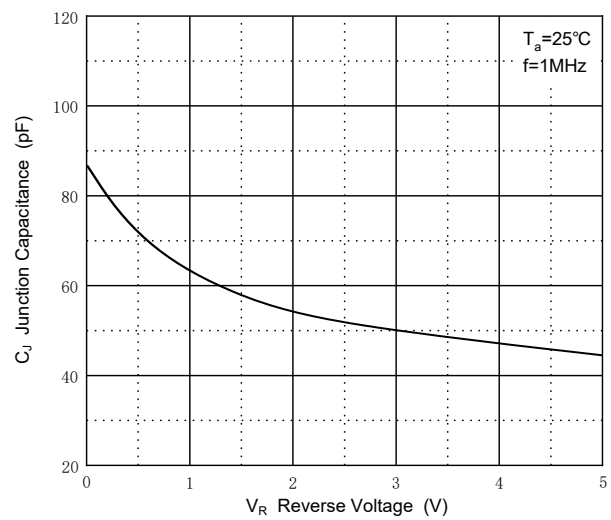
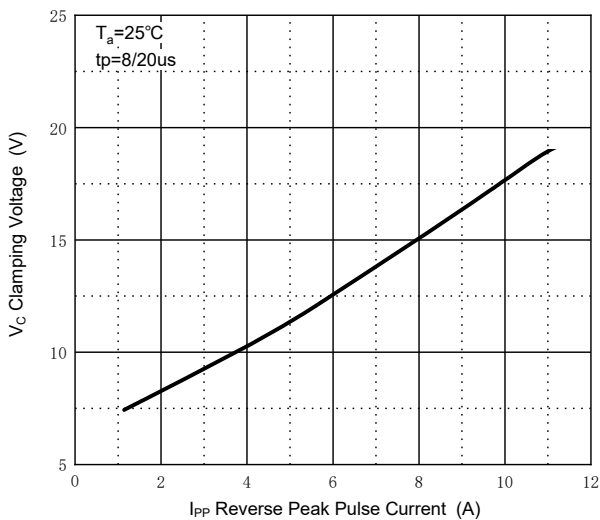
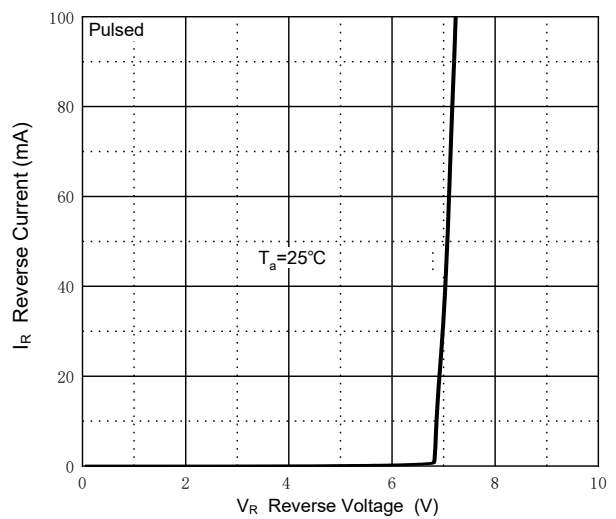
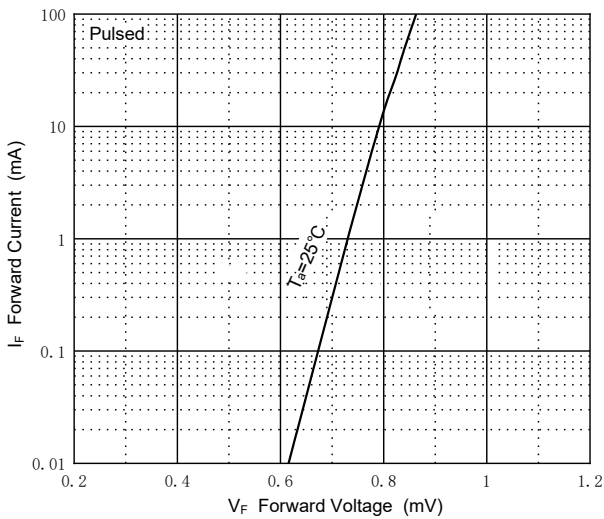
### Typical Characteristic Curves



8/20 $\mu\text{s}$  waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



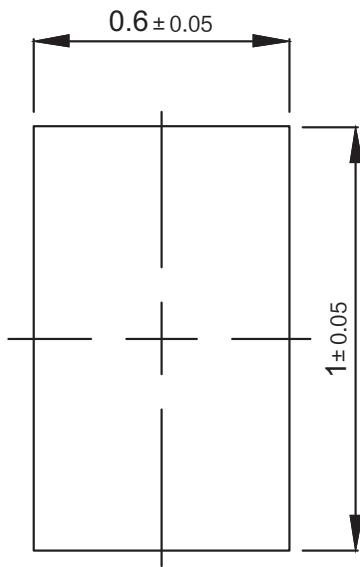


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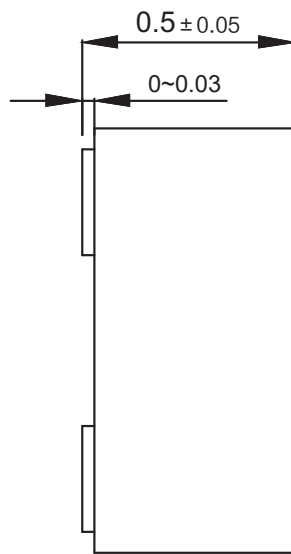
## Package Outline

DFN1x0.6-2L-0011

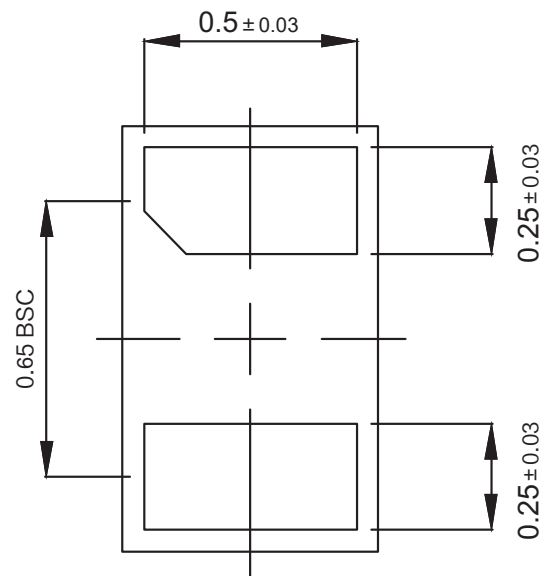
Dimensions in mm



TOP VIEW



SIDE VIEW



BOTTOM VIEW

## Ordering Information

Device	Package	Shipping
ESDU5V0ADF	DFN1x0.6-2L	10,000PCS/Reel&7inches

单击下面可查看定价，库存，交付和生命周期等信息

[>>PJSEMI\(平晶微\)](#)