



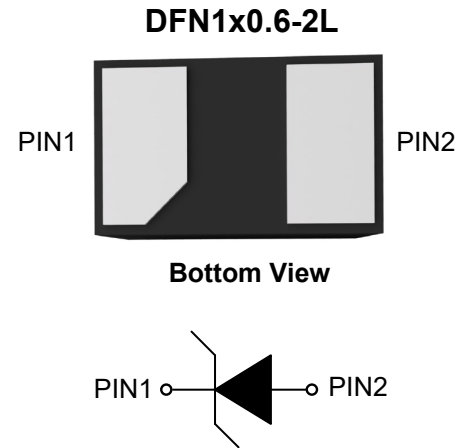
ESDU5V0ADF Transient Voltage Suppressor

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.



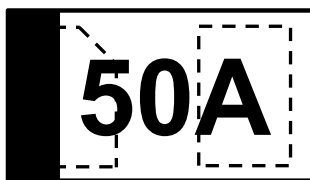
Features

- 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



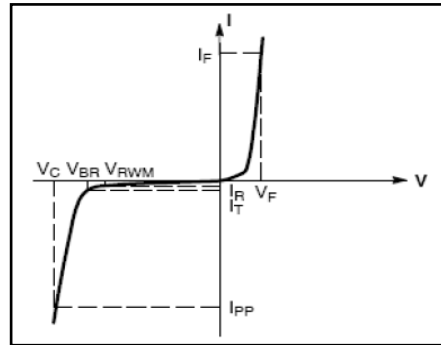
Top View

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

Parameter		Symbols	Value	Unit
IEC61000-4-2 ESD Voltage	Air Model	V_{ESD}	± 15	KV
	Contact Model		± 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

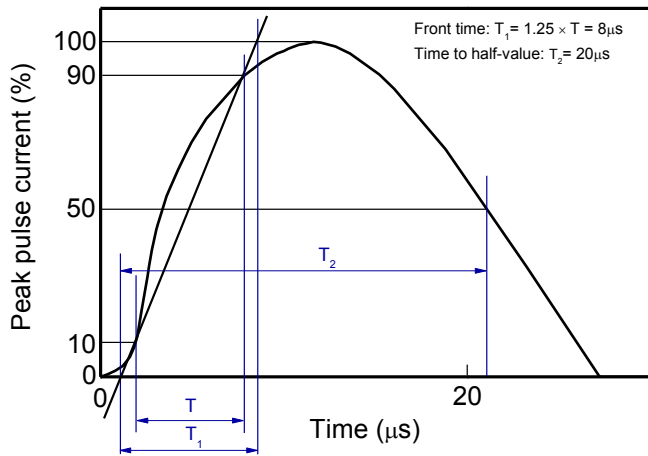
Electrical Characteristics ($T_A=25^\circ\text{C}$)

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	μA
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

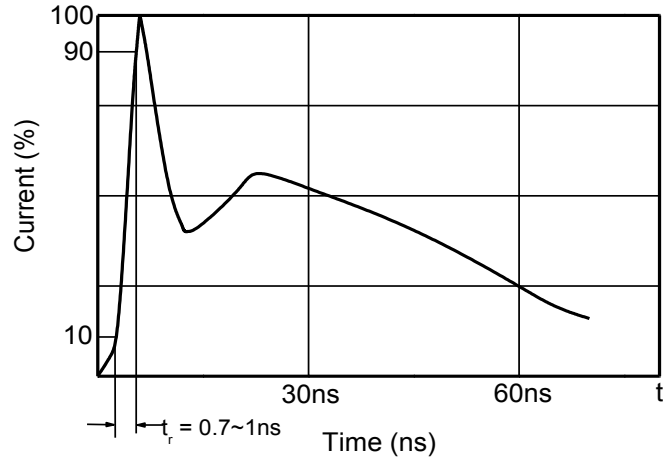


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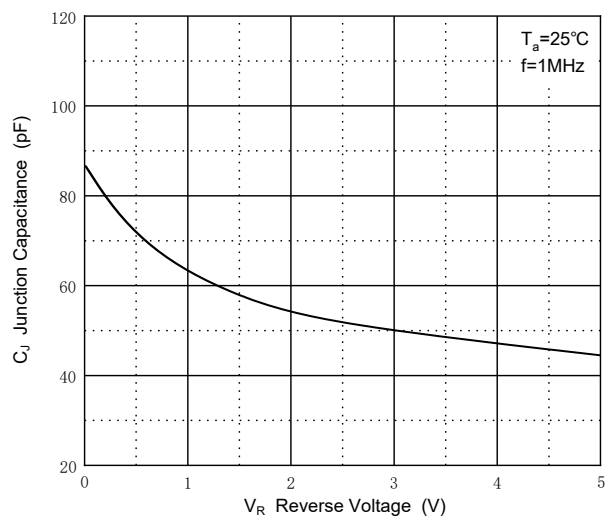
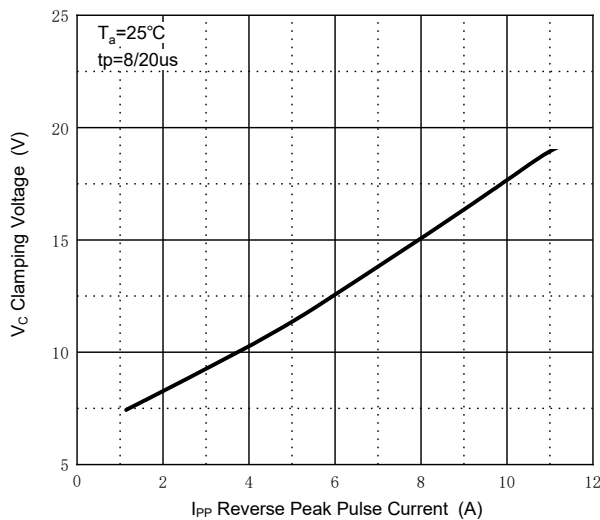
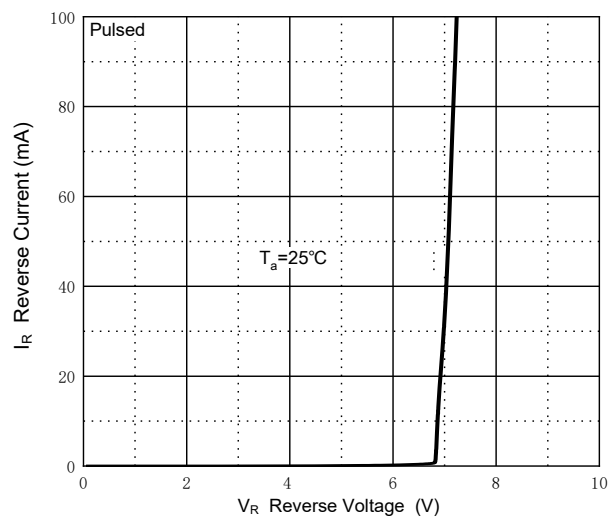
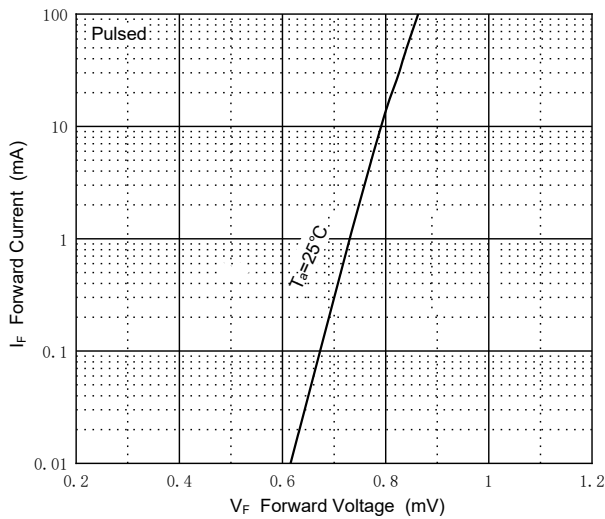
Typical Characteristic Curves



8/20 μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



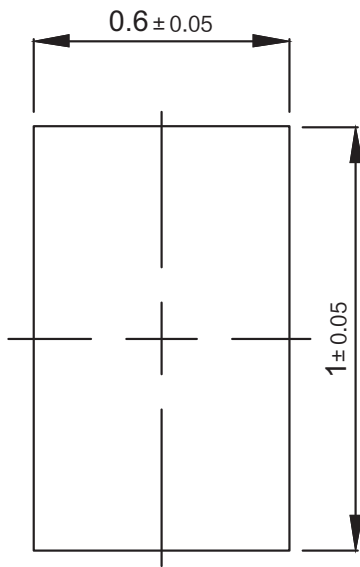


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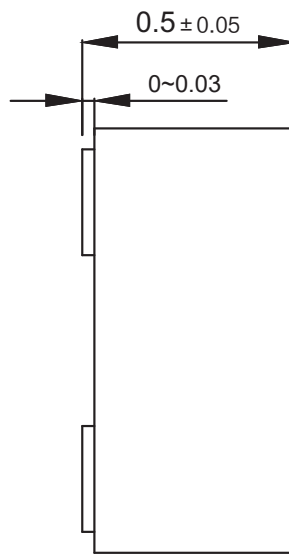
Package Outline

DFN1x0.6-2L-0011

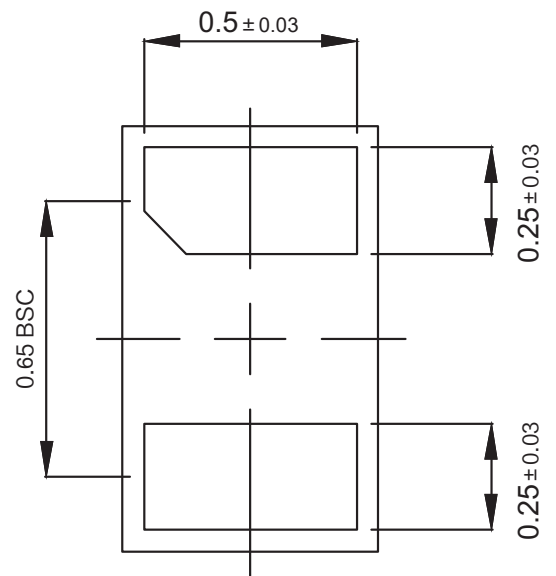
Dimensions in mm



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Ordering Information

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